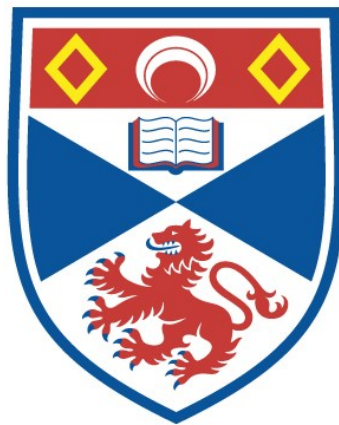


# **The good energy: community, ethics, and the economy in an Italian electricity cooperative**

Lorenzo Sapochetti

A thesis submitted for the degree of PhD  
at the  
University of St Andrews



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# Abstract

Based on 17 months of ethnographic fieldwork — conducted both online and in-person — with *ènostra*, a renewable energy cooperative headquartered in Milan, Italy, this doctoral research investigates the cooperative's trajectory within the electricity market. It examines how *ènostra*'s members, workers, and clients perceived and enacted an 'energy transition from below' through the establishment and participation in a 'community enterprise'. The thesis delves into how my interlocutors pursued 'doing good' through collective and personal endeavours, encompassing economic interactions between the cooperative and its members, aspirations for individual and societal well-being, the development of an 'institutional' framework for social and environmental sustainability, and the envisioning of a future energy system based on collective efforts. Drawing primarily from interviews, field observations, and documents, the research illustrates how participants strove to reconcile the pursuit of an alternative, cooperative approach to renewable energy with participation in a capitalist electricity sector. Ethical and moral considerations intersected with and were influenced by the market economy that governed the electricity infrastructure.

I argue that exploring the mobilisation of ethical and community ideals within the techno-economic context of the electricity infrastructure can transcend politico-economic analyses that pit energy cooperatives against corporate and state power. The thesis reveals the transition to renewables as a multifaceted process of disengagement from the current fossil-based energy system, which involves not only technical, economic, political, and social dimensions, but also moral, emotional, and symbolic ones. Overall, the research contributes to advancing anthropological scholarship on energy, organisations, alternative economies, and infrastructure by examining the intricate ethical dilemmas arising within the intersection of non-profit organisations and capitalism.

# Acknowledgements

First and foremost, I wish to thank everyone at *ènostra* who shared their life experiences and knowledge with me. Thank you for welcoming me into the constellation of individuals and activities that make up your vibrant community, a community I have come to feel a part of. This work would not have been possible without your support, and for that reason, I dedicate it to you.

I am deeply indebted to my supervisors, who took on my supervision during the most delicate phase of my PhD, helping me navigate innumerable challenges and guiding me to the end of this journey. I am forever grateful to Mette High for accepting me into the Centre for Energy Ethics, which has incredibly enriched my doctoral experience, and for her thorough and insightful comments on my work. Her thoughtful and kind supervision helped me grow both as a researcher and a person. I am also extremely grateful to my second supervisor, Mark Harris, who assumed an increased supervisory role during the thesis writing phase. His feedback on my work and encouragement proved invaluable.

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**Cover Map:** Map of Italy with locations mentioned in the thesis.

*Credit:* Eleonora Gagliardi.

# Chapter 1:

## Introduction

### Introducing the ‘energy community’

After six months of online ethnographic fieldwork and amidst COVID-19 uncertainties, I moved to Italy in the autumn of 2021 to follow *ènostra* more closely. On an October morning, I travelled to Mocaiana, a small village within the *comune* (‘municipality’) of Gubbio in the central Italian region of Umbria. I vividly remember the nervousness that wrapped me as I embarked on the journey. The tension reminded me how momentous what I was about to experience felt. I could finally attend the first in-person event of my fieldwork and meet people I had only met through a screen over the previous six months. I would also participate in a historical event: the *fiesta* (‘celebration’) of *ènostra*’s first collectively-funded wind turbine.

In the lead-up to the event, Chiara, a young *ènostra* worker who oversaw the logistics, offered to find me a lift. More than a hundred *ènostra* members from every corner of Italy would attend the event. As a cooperative committed to minimising carbon impact, *ènostra* promoted car-pooling among members driving to Mocaiana. Chiara put me in touch with Romina, a member from Rome, who kindly offered to drive her friend Annabella and me. We arrived at the venue with some delay. My footsteps on the gravel broke a quiet, bucolic soundscape as I rushed towards the entrance to a large, rectangular, white-painted concrete building. As I opened the glass door, I recognised Gianluca Ruggieri, then-*ènostra* Vice President, speaking through a microphone. I gazed around at the place and was shrouded in a warm, colourful environment: wall-hanging *ènostra* banners wrapped around a cheerful crowd intent

on hearing Gianluca. I signed up at the welcome desk, moved swiftly towards the back of the hall and joined the hundred or so members who had turned up to listen to Gianluca proudly recalling the salient moments of the cooperative's history (Figure 1).



**Figure 1.** ènostra members attending the Festa di ènostra ('Celebration of ènostra') in Mocaiana, Umbria, October 2021.

*Credit: Author.*

After Gianluca, ènostra President Sara Capuzzo addressed the audience: "This is the synthesis of our journey," Sara described the collectively-funded wind turbine. Named after the hilltop it stood on, known locally as *il Cerrone* ('the Big Mount'), the wind turbine carried significant symbolic weight for ènostra. The project marked the conclusion of a nearly two-decade journey aimed at pursuing what ènostra called *una transizione energetica dal basso* ('an energy transition from below') aimed at fostering the involvement of non-traditional energy market actors, including individuals, civil society organisations, and small and medium businesses. Gianluca and Sara, who will

frequently appear in this thesis, were not only two of the initiators of *ènostra* but also a constant reference point for the community of individuals who, in various capacities, shaped the cooperative and whom I refer to as ‘my interlocutors.’ These individuals were from varied backgrounds, places, and circumstances and encompassed founders, employees, clients, and members — terms I will examine in detail throughout this thesis. I followed their participation in *ènostra* through various forms of ethnographic engagement, including online and in-person methods, from March 2021 to July 2022. This involved attending online meetings, workshops, webinars, and in-person events. Additionally, I assisted with related activities, conducted one-week in-person participant observation in the *ènostra* workspace in Milan in late 2021, and resided in the northern Italian city for two consecutive months in 2022 to conduct in-person participant observation at *ènostra*’s workspace more consistently. I accompanied some of *ènostra*’s staff to events and work trips throughout the country and conducted online interviews with them and with cooperative members and clients. Furthermore, I have also co-authored a book chapter with Gianluca and remained in close contact with him and other *ènostra* employees and members after the doctoral fieldwork ended.

*ènostra* (lit. ‘it’s ours’) is a producer and consumer renewable energy cooperative based in Milan, with members from around Italy. It is the largest grassroots initiative in Italy, where individuals, households, businesses, and organisations collaborate to generate, manage, and/or consume energy collectively. These initiatives deviate from conventional profit-driven approaches by prioritising environmental, social, and ethical values and principles over primarily economic considerations. They are characterised by various organisational and legal structures, from cooperatives owning energy infrastructure to non-profit organisations managing facilities for community benefits to joint ownership of renewable energy ventures involving collaboration among communities, businesses, and local authorities. In this diverse landscape, complicated further by the establishment of a legal framework for the development of ‘Renewable Energy Communities’ by the European Parliament (2018),



I explore my interlocutors' experiences and perceptions of what they understand as a *comunità energetica* ('energy community'). Departing from a concern with defining 'community energy,' which dominates the broader scholarly debate on the topic, I focus on how 'community' is mobilised by my interlocutors to articulate social responsibilities, economic practices and visions of the energy future. Rather than a reified notion defining alternative institutional arrangements to the state's and private sector's hegemony in the energy sector, 'community' emerged as a "repository of meanings" (Rapport & Overing 2000: 63).

In the context of the neoliberal restructuring of Italy's energy system, this thesis explores how community, ethics and the economy are intertwined in my interlocutors' pursuit of an alternative to profit-driven energy companies. I address the following research question: How do people pursue personal, collective, social, and moral objectives through *ènostra*? As my interlocutors seek to distance themselves from large corporations and utilities that dominate Italy's energy sector, I inquire how their endeavours interweave a complex web of relations with the existing electricity system. To this aim, I elaborate on the following subquestions: What do notions of 'community' entail for a non-profit organisation seeking to engage ethically with the electricity economy? How do interlocutors navigate existing market mechanisms and regulatory frameworks governing the electricity infrastructure? What kind of economic, technical, moral and imaginative terrains do my interlocutors' pursuits traverse?

I titled my thesis 'The Good Energy' for two main reasons. Firstly, I wanted to pay homage to the people of *ènostra*, whom I am deeply indebted to for enabling this research. *L'energia buona* ('The good energy') features in the cooperative's logo, just beneath the name (as depicted in Figure 2). Secondly, I sought to emphasise the red thread running through the chapters. 'Pursuing the good' is the connecting element that binds the themes explored in the thesis. These include entrepreneurial aspirations to scale up the cooperative, mutual economic commitments between the

organisation and their members, relations of individual and collective responsibility, and the imagination of the energy system of the future.

In this chapter, I start my inquiry by examining how social scientists have drawn on the concept of community and applied it to the study of grassroots renewable energy project development. Subsequently, I present my approach to an anthropological investigation of this topic. Then, I discuss the theoretical framework I draw upon, emphasising key contributions and setting the scope of my research. I review the methodology, addressing ethical considerations, questions of positionality, and the challenges posed by the pandemic while critically assessing the limits of my research. In the concluding section, I provide a roadmap of the thesis structure.



**Figure 2.** ènostra’s logo.

*Credit:* ènostra’s website

Context of the research: Community and renewable energy development

Grassroots energy initiatives in Italy and beyond

There is increasing consensus among scholars, policymakers, and activists that communities should take centre stage for a rapid and equitable transition to low-carbon energy systems in many regions worldwide, especially Europe. As scholar and activist Ashley Dawson (2020: 9) has argued, “[t]ruly sustainable energy production will only be possible if power is taken out of the hands of these gargantuan profit-

seeking corporations and their flunkies in the halls of state.” From this point of view, energy transitions should imply a double shift, involving replacing spatially concentrated fossil-powered plants with distributed renewable energy facilities and disempowering energy oligarchies (i.e., states and corporations) in favour of economic and political models centred on communities. In recent years, European policymakers have progressively embraced initiatives to promote decentralised and community-led renewable energy production and facilitate the structural changes to governance systems required to move away from large-scale energy production and distribution (Savaresi 2019). One of the most prominent efforts in this direction is the 2019 revision of the Renewable Energy Directive by the European Union (EU), which stands as a fundamental component of EU climate and energy policy (Roberts 2021). For the first time, the updated Directive introduces measures to establish a supportive legal framework for developing community-based energy initiatives across the EU, requiring Member States to adjust this legal framework to their national context. As a result, in 2019, Italy began implementing the EU Directive and embarked on a legislative process. While these represent the first attempts at mainstreaming civic participation in renewable energy projects, grassroots energy initiatives are not new in Europe and Italy.

From the late 1970s onwards, spurred by the energy crisis and the appearance of anti-nuclear and environmental movements, grassroots initiatives around renewable energy have arisen in Europe. Energy cooperatives emerged as the prevalent organisational structure, especially in Germany, Denmark and, to a lesser extent, the UK (Huybrechts & Mertens 2014; Spinicci 2010). However, in Italy, these initiatives date back to the late 19th and early 20th centuries, emerging contemporaneously with the broader national cooperative movement gaining momentum across the country. The Italian northwest, where the origins of *ènostra* can be traced and remains central to shaping the cooperative's trajectory, is also where consumer and producer cooperatives first emerged in the country in the late 19th century. During Italy's unification process between 1848 and 1871, a period known as *Risorgimento* (lit.

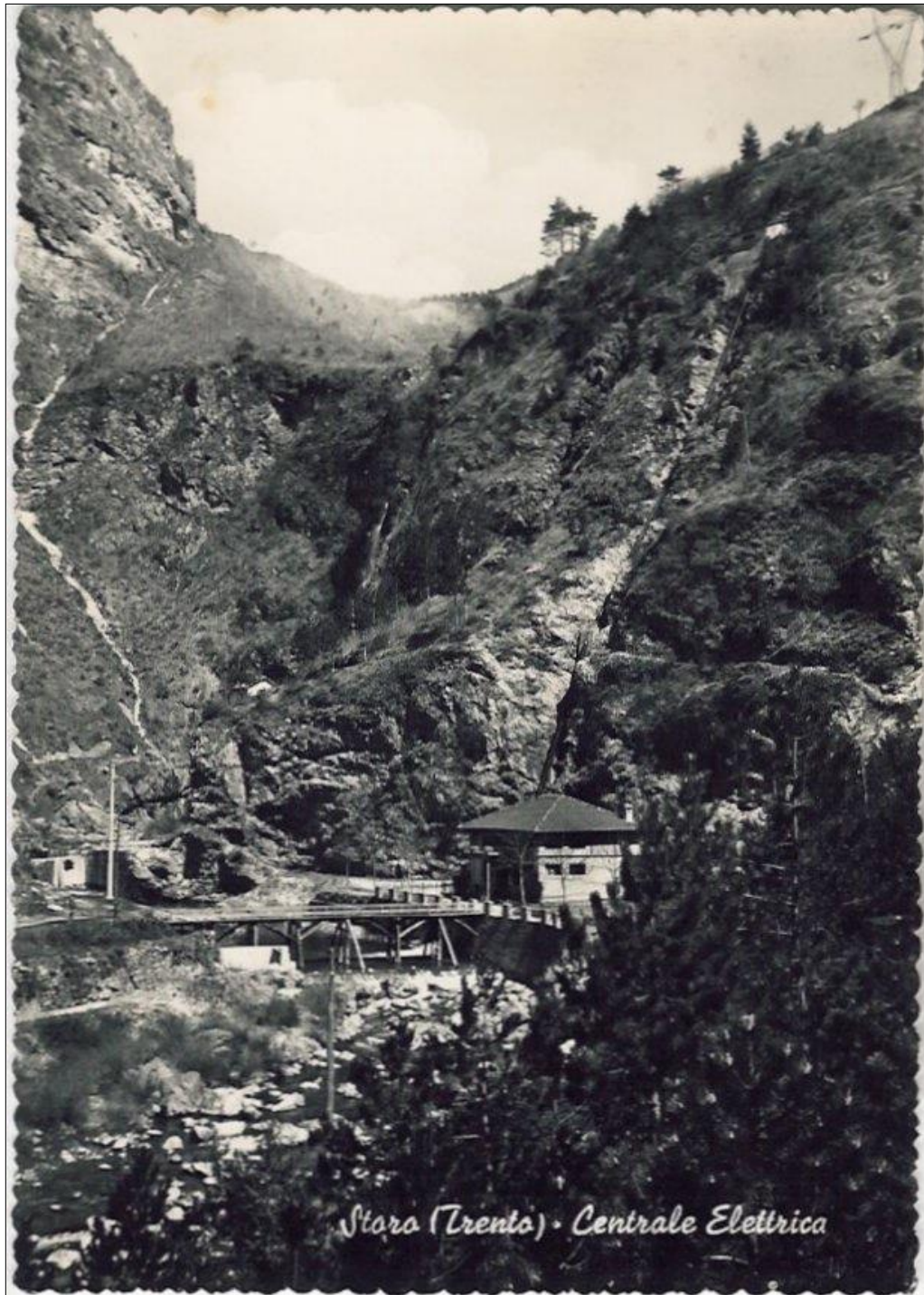
‘Resurgence’), the regions of Piedmont and Lombardy became a fertile ground for industrialisation in what had until then been a predominantly rural economy. Both regions underwent significant urbanisation and industrial growth, characterised by infrastructure development, including railways and roads that connected major cities like Turin and Milan, alongside a proliferation of factories specialising in textiles, steel production, and machinery. This attracted workers from surrounding rural areas and other parts of the country, especially the South. As industrialisation progressed, expanding beyond the urban centres to include surrounding country towns, Piedmont and Lombardy saw the rise of a burgeoning working-class movement.

Following the political insurrection of 1848, King Charles Albert of the Kingdom of Piedmont-Sardinia granted the right of free association enshrined in the *Statuto Albertino* — the constitution later extended to the other regions incorporated into the nascent Italian state. Encouraged by the *Statuto*, workers began to organize into mutual aid societies (It. *società di mutuo soccorso*), which aimed to protect against illness, unemployment, and pensions. These early forms of worker solidarity laid the groundwork for the development of cooperative consumption and production. In 1854, for example, the Workers' Self-help Society of Turin (It. *Società degli Operai di Torino*) launched a provision store (It. *magazzino di previdenza*) to address rising food prices during a time of agricultural shortages (Earle 1986). Establishments like these, which aimed to sell goods at cost price to provide immediate financial benefits to their members, flourished in Piedmont in the mid-to-late 19th century. In places like Sesto San Giovanni, on the outskirts of Milan, mutual aid societies provided the basis for developing textile and manufacturing cooperatives to manage their production, improve working conditions, and promote literacy among workers and their families (Bell 1986). Cooperative initiatives to improve the overall well-being of workers developed strongly in Lombardy, a tradition that still survives today in the form of the *circoli cooperativi* (‘cooperative clubs’) and other forms of association that promote cultural and recreational activities among their members (Gaboardi 2000, see also Muelebach 2012).

At the turn of the 20th century, cooperatives providing public utilities emerged alongside the three main types of traditional cooperatives — worker, consumer, and cooperative banks. These utility cooperatives, similar to consumer and banking cooperatives, were established and managed by the customers themselves to meet their essential needs, such as the provision of power and water. However, they remained less prominent than the main types of cooperatives and did not experience the same level of geographical expansion. Moreover, unlike other cooperatives that evolved from pre-existing organizations such as mutual aid societies, these utility cooperatives typically originated at the same time as the services they provided; they were generally small in scale and primarily served rural communities (Mori 2013). This was mainly due to government intervention, which rapidly took control of essential services such as water and electricity supply. Additionally, the absence of infrastructure in remote areas, which have historically been, and continue to be, underserved by public and corporate providers, led people to form cooperatives to finance, build, and maintain these services themselves. It is, therefore, not surprising that the first cooperative venture in the electricity sector was established in Chiavenna, a rural village in the Italian Alps. In 1894, the Società per l'Illuminazione Elettrica, a cooperative founded by the residents of Chiavenna, inaugurated a hydroelectric power plant that generated electricity for its members (Mori 2014). Since then, more electric cooperatives have emerged in the Alpine region, where local communities have managed to harness the energy of rivers and streams and provide electricity services independently, utilizing small hydraulic turbines and localized infrastructure (Spinicci 2011).

The first electricity cooperatives appeared in the northern Alpine region of the country in conjunction with the construction of hydroelectric dams. However, they remained confined to the Alpine area, mainly due to the combination of specific geographical features (not easily found elsewhere) and the significant initial investments required by hydroelectric technology (Spinicci 2010). Hydroelectric cooperatives aimed to

supply electrical energy to isolated mountain communities. They offered this service to all residents in their area rather than being targeted at a specific social group, such as members and investors (Mori 2014). Francesca Spinicci (2010: 46) termed these initiatives “historical electricity cooperatives” to distinguish them from the cooperatives that emerged after the nationalisation of the electric grid in 1962 and, even more so, after the liberalisation of the electricity market in 1999. Unlike the latter, which provided electricity across Italy’s grid, the historical energy cooperatives were born to meet the growing demand for electricity in rural Alpine areas and complement the limited access to the national grid (Figure 3).

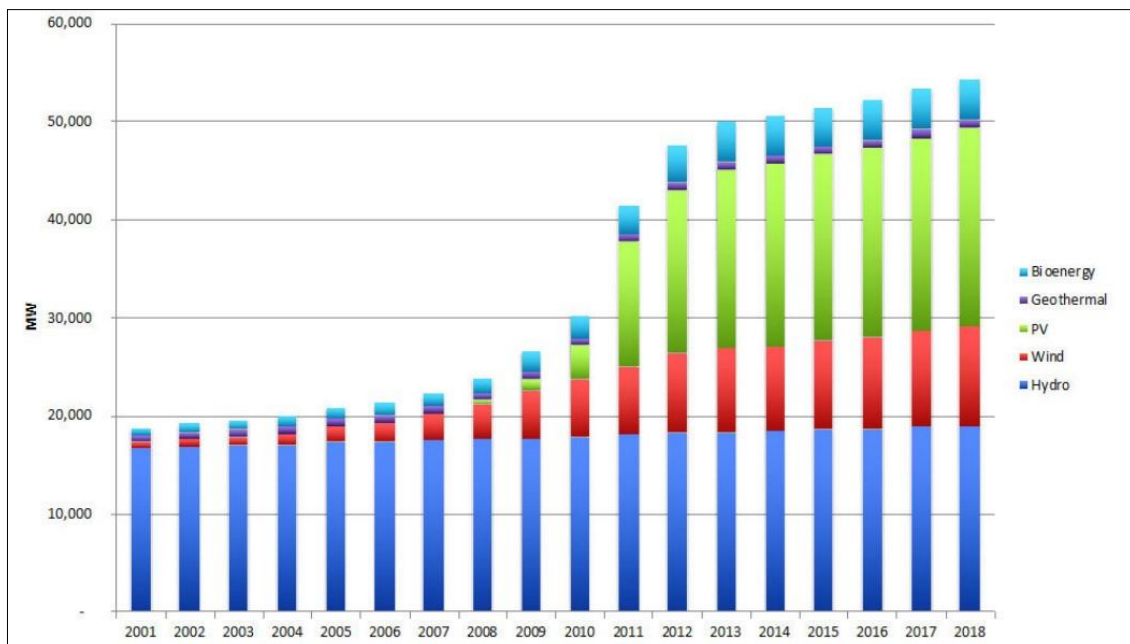


**Figure 3.** A hydroelectric power plant in Storo, Trentino Alto Adige, owned by the local cooperative CEDIS since 1906.

*Credit: CEDIS's website.*

It was only in the second half of the 2000s that Italy experienced a significant surge in civic engagement with renewable energy nationwide, spurred by robust national

policy support (Magnani & Osti 2016). In 2017, the country introduced subsidies for various renewable technologies, including solar panels, biogas and wind farms. Strategic political considerations drove this programme, given the country’s status as the leading importer of energy within the European Union (Brondi, Armenti, Cottone, Mazara & Sarrica 2014). Solar power had the most significant advantages from subsidies. In 2005, Italy implemented a generous feed-in incentive programme for solar installations known as *Conto Energia* (lit. ‘Energy Account’). The installed solar capacity in the country rose from 87 MWh in 2007 to 18,450 MWh in 2014 (Figure 4), positioning Italy as the second-largest photovoltaic producer in Europe, trailing only behind Germany (Candelise, Winskel & Gross 2013; Blasutig 2017). These favourable conditions have propelled civic engagement with (relatively) small solar facilities, providing an opportunity for proponents who could not typically undertake more extensive and complex energy projects (Candelise & Ruggieri 2017).



**Figure 4.** Renewable cumulative installed capacity in Italy, 2007-2018.

*Credit:* Candelise & Ruggieri (2020: 6).



Community energy: What's in a term?

Grassroots energy initiatives are not limited to cooperatives but include neighbourhood-owned solar facilities, district heating systems, microgrids, and others. Albeit diverse, these initiatives share a focus on promoting bottom-up approaches to renewable energy development that depart from private- and state-centred models of generation, distribution and management. A growing interdisciplinary literature in the social sciences tends to bring them together under the term 'community energy' and its variations 'energy communities' and 'communities of energy.' According to Luigi Pellizzoni (2018), this reflects the prominence of UK-based scholarly voices in the debate addressing the British government's policy strategy. Since the early 2000s, the British government has sought to develop policy measures that identify 'community' as the ideal site for addressing issues related to climate change, sustainability and renewable energy development, providing financial support to initiatives that rapidly multiplied (Devine-Wright 2007). Geographers Gordon Walker and Patrick Devine-Wright noticed the increasing use of the term 'community' in association with renewable energy projects in the UK, highlighting a "panoply of different interpretations" (Walker & Devine-Wright 2008: 498) of what the term meant for government, non-government, and industry actors involved in these initiatives. Concerned with what should be included in the definition of 'community energy,' Walker and Devine-Wright identified two fundamental aspects: a 'process' dimension that focuses on who develops and runs the project and an 'outcome' dimension that addresses how the results of a project are distributed, essentially identifying who benefits from the project. They distinguished between 'closed and institutional' development processes yielding 'distant and private' outcomes (e.g., a wind farm developed and run by a utility) and 'open and participatory' processes with 'local and collective' outcomes (e.g., a community wind farm owned by local farmers). Building on Walker and Devine-Wright's work, a significant strand of research has centred around the questions: Who are the actors involved in community energy, and what are their motivations? What

are these projects' potential economic, social, and environmental benefits, and what are the barriers to their success?<sup>1</sup> Researchers have been mainly interested in formulating standard definitions of 'community energy' as alternative organisational models to traditional corporations that dominate the energy market, primarily focusing on the projects' geographical scale and governance models (Seyfang et al. 2013; Parkhill et al. 2015).

Research on community energy in Italy has followed a similar pattern. For instance, Chiara Candelise and Gianluca Ruggieri (2020) systematically reviewed Italian energy communities, explicitly defined as initiatives involving civil society actors in financial investments in and ownership of renewable energy assets. By focusing on processes and outcomes, they distinguish between top-down and bottom-up approaches to creating community energy projects and between emphasis on individual monetary return for the investors and broader societal impact. Similarly, focusing specifically on energy cooperatives, Natalia Magnani and Daniela Patrucco (2018) distinguished between cooperatives focused on 'mutual benefit' and cooperatives oriented to 'public benefit.' They defined the former as initiatives aimed at obtaining the lowest price for its members and redistributing dividends among them, and the latter as aimed to help the most comprehensive number of people, whether members or not, to reduce their energy bills. Magnani and Patrucco also identified three types of community energy endeavours. The first type regards energy cooperatives with a solid connection to the local context, prevalent in small, rural communities. Such cooperatives typically stem from local entrepreneurs who leverage their relationships and credibility within the community. Their objective is to leverage revenues from incentivised tariffs for renewable energy to mitigate rural depopulation. The second type encompasses energy cooperatives propelled by individuals, described by Magnani (2013) as 'ecopreneurs': environmentally-minded entrepreneurs involved in

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<sup>1</sup> See Hicks & Ison (2018) for a review of the contexts and motivations in which community energy projects emerge. See Brummer (2018) about the benefits and barriers of community energy.

the burgeoning ‘green economy.’ These cooperatives are grounded in a financing model that facilitates the establishment of medium-to-large-scale installations, employing a shareholding model designed to mitigate financial risks for members and potentially generate returns. The third type comprises initiatives galvanised by social and solidarity economy movements, such as solidarity-based purchase groups (It. *gruppi d’acquisto solidale*) and solidarity economy districts (It. *distretti di economia solidale*). Typically entrenched in local contexts, members of these initiatives pursue ideals of solidarity intended as collaboration and empathy with producers, the environment, and fellow members (Grasseni et al. 2013).

In general, community energy has been envisioned as a means to transform current energy systems “by bring[ing] power under public and community ownership or control” (Dawson 2020: 14). It has been promoted upon the assumption that it will deliver positive social, economic, and ecological benefits to local communities, even though with often little empirical evidence (Berka & Creamer 2018). If community energy becomes a preconceived concept to classify alternative processes to capitalist relations of energy production, ownership and management, how can we enhance our understanding of why and how community matters in these processes?

### Reframing community

Anthropology has long grappled with the concept of ‘community.’ As Vered Amit (2002a: 13) has noted, ‘community’ is “too vague, too variable in its applications and definitions to be of much utility as an analytical tool.” Amit pointed out that when anthropology embarked on the study of communities, it did so “encumbered with the baggage of a disciplinary tradition that has privileged collectivities as the primary locales and agents of sociality” (2002a: 14). Following the intellectual mandate of 19th century social sciences to “provide objective accounts of and to generalise from observable patterns and structures of aggregate social behaviour” (ibid), anthropology refrained from dealing with experiential, personal, and subjective

aspects of human existence. The focus on localised, small social groups that facilitated face-to-face interaction reinforced a view of communities as clearly bounded entities. As anthropologists moved to study societies in the context of globalisation, reflections on community shifted from focusing on actual interactions to how people “imagine and feel things together” (Appadurai 1996: 8). Benedict Anderson’s (1983) notion of ‘imagined communities,’ developed to understand how the rise of print capitalism facilitated the creation of a sense of national identity among spatially dispersed people, influenced this reorientation. In essence, Anderson’s decoupling of ‘community’ from locality prompted anthropologists to reflect on the affective charges of the concept rather than the actual modes of social interactions that it presupposes. As state policies and capitalist forces threaten the integrity of locales, commonality is increasingly asserted on a symbolic rather than a structural (i.e., social organisation) level (Cohen 1985). This does not mean that anthropologists should avoid structural interpretations altogether; instead, it encourages them to extend their sight towards “claims of, and for, social engagement, whether as recognition of an existing set of social relations or as a call for the formation of new sets of social relations” (Amit 2002b: 10). In Gerald Creed’s (2006) terms, the kind of questions that anthropology should ask are: In which ways is community deployed? What work does it do, and in which specific context?

The anthropological interest in departing from an understanding of communities based on their organisational frameworks, hierarchies, and institutional arrangements reflects an emerging sentiment within interdisciplinary community energy research. Recently, scholars have pointed out that community energy research is stuck in a search for meaning (Creamer et al. 2019). They argue that because ‘community’ is such a polysemic word, attempts at defining community energy might result in simple etymological quandaries rather than enhance our capacity to analyse what happens on the ground. Instead, they emphasise an approach sensitive to the community as “ethnographically emergent” (Creamer et al. 2019: 2). This approach underscores the importance of understanding the particular experiences and contexts

in which notions of 'community' are mobilised. Appeals to this term are rarely univocal but often contain concerted invocations of several aspects, such as responsibilities, identities, ideals and morality (Gold 2005). Just like 'nation' or 'culture,' terms such as 'community' "persist in usage [precisely] because they evoke a thick assortment of meanings, presumptions and images" (Amit 2002a: 13). Therefore, reframing community in renewable energy development impels scholars to ask: Who uses it? What does its usage indicate in any particular context? Where is the term used, and where is it not?

Anthropology's contribution to the 'community energy' debate has been limited. Anthropologists have predominantly focused on rural and urban off-grid initiatives in the context of grassroots energy development. For instance, Elaine Forde (2017) explored the ethical values that off-gridders attach to living off the electricity grid, focusing on ecovillages and autonomous dwellings in West Wales. Similarly, Philip Vannini and Jonathan Taggart (2013; 2014; 2015) conducted comprehensive research across Canada, documenting the lives of individuals and families who have opted for off-grid living arrangements. These studies collectively explore the adaptation of everyday domestic practices to off-grid renewable technologies, critiquing the conventional lifestyle of modern societies while proposing a new ethical relationship with energy. From a different perspective, Singh and colleagues (2017) ethnographically investigated an off-grid village in rural India. They argued that cultural norms rather than mere economic calculations influenced the energy exchanges among solar-powered households. Singh and colleagues challenge the dominant rational choice paradigm to understand local energy distribution, which sees household energy exchanges as mere economic transactions. In a similar vein, other scholars draw on a comparison of ethnographic research conducted in Nicaragua and Nepal to critique technocratic interpretations of communities and households as placeholders for modern electricity services "rather than as active agents located in social energy systems" (Campbell et al 2016:13). In this thesis, I seek to advance the discussion on community energy by initiating a research agenda that

moves beyond the dualism between capitalism and its alternatives to examine how community energy emerges within capitalism and the ethical dilemmas that arise with it. I take energy ethics, an emerging approach in the anthropology of energy, as a starting point to explore how my interlocutors pursue ‘the good’ and how their pursuit interweaves with ethical and economic concerns. Without abandoning a critique of the state and corporate power, which nonetheless emerged in the views of my interlocutors, I extend the focus from the political to “the pervasiveness of ethics in social life with a keen awareness that people do not necessarily meet their own or others’ expectations or hopes” (High & Smith 2019: 13).

### The Good Energy: Theoretical framework and key contributions

In anthropology, there has been a growing emphasis on the concept of ‘the good,’ which has emerged as a central theme encompassing various dimensions such as value, morality, well-being, imagination, empathy, care, gift, hope, time, and change. Joel Robbins proposed an anthropology of the good, which should explore “the ways in which people organise their personal and collective lives in order to foster what they think of as good, and to study what it is like to live at least some of the time in light of such a project” (Robbins 2013: 457). This perspective has resonated with a new approach within the anthropology of energy. As Mette High and Jessica Smith (2019) pointed out, two prevailing frameworks have animated anthropological research on energy: a critique of corporate and state authority and an endorsement of transitions toward less carbon-intensive futures in energy. High and Smith emphasised how limiting anthropology’s intellectual pursuit within these two frameworks constrains the range of ethical questions and perspectives researchers can and are likely to explore. They argue that this dual paradigm is “animated by ethical views that can implicitly shape research agendas or sometimes result in strong accusations that obscure how our interlocutors themselves may consider the rightness and wrongness of energy resources and the societal infrastructures of which they form a part” (High & Smith 2019: 10). In contrast, they propose energy ethics as an approach that allows

anthropologists to “look more closely and consider the multiple and varied ways in which individual people encounter energy — and desire to encounter energy — [and] consider empirically how people live with energy and how energy may or may not contribute to their definition of a good life” (Smith & High 2017: 2). Positioned within the anthropology of energy ethics, my research intersects with three strands of inquiry that hold significance for the broader discipline, far beyond the specifics of energy: anthropological approaches to the study of organisations; the longstanding field of investigation within economic anthropology focussed on alternative economies (also known as ‘human economy’); and the ongoing discussion on infrastructures. In contemporary scholarship in the anthropology of energy, these lines of investigation frequently converge rather than remain distinct domains, although not necessarily in every instance. These three strands of inquiry, which I discuss in the following section, represent the theoretical milieu I draw upon to analyse my ethnographic material.

#### The anthropology of organisations

The study of organisations intended as “highly structured collectives” (Vargas-Cetina 2015: 130), such as governmental bodies, corporate entities, international institutions, and NGOs, is a field in anthropology which dates back to the 1920s and 1930s. Curiously, a breakthrough for the initiation of organisational anthropology concerns electricity. Between 1927 and 1932, a group of researchers led by psychologist Elton Mayo conducted a study of the Western Electric Hawthorne Plant in western Chicago and Cicero, Illinois, to test Scientific Management principles among their workers (also known as ‘Taylorism’). Their approach focused on improving efficiency and productivity in organisations through systematic analysis and optimisation of work processes. With the aid of anthropologists, the researchers discredited these principles by uncovering the social dynamics of the workplace. This eventually led to the emergence of the Human Relations school, which forefronted research on organisations for the next 25 years (Wright 1994; Garsten & Nyqvist 2013; Bendix & Fisher 2016). The research conducted by Mayo and his colleagues paved the way for

the anthropological examination of corporations (in the contemporary English usage of the term as a synonym for ‘company’).<sup>2</sup> These highly structured collectives, which I will call ‘business organisations,’ open various avenues to anthropological investigation.

One of the key elements underpinning my ethnographic examination of *ènostra* is what Alberto Corsín Jiménez terms “institutional ethics” (Corsín Jiménez 2016a: xiv). This refers to an emerging phenomenon within business organisations that encompasses principles such as transparency, participation, corporate social responsibility (CSR), and governance, serving as “an idiom of organizational reflexivity” (ivi: xiv). Institutional ethics is particularly prominent in the energy sector, where companies’ direct interactions with the environment, including human and non-human actors, often result in intricate and tense relationships with significant interests at stake (High 2022). Anthropologists have extended their reflections from the power dynamics, negotiations, and conflicts underlying the interactions between corporations and local inhabitants to the internal workings of corporate life. For instance, Dinah Rajak’s (2009; 2011; 2016) work on Corporate Social Responsibility (CSR) shifts the focus from the conventional beneficiaries to the internal dynamics of companies involved in CSR endeavours. Through ethnographic fieldwork in London, Johannesburg, and Rustenburg (a South African mining community), focusing on Anglo American, a major ore-extracting company, Rajak scrutinises the language and mechanisms through which corporate actors are encouraged to align with market logic for societal transformation, as well as the implementation and communication of CSR initiatives within the company. Rajak’s work illuminates how CSR plays a crucial role in upholding corporate capitalism by providing corporations with a “moral mechanism through which their authority is extended over the social order” (Rajak

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<sup>2</sup> Corporation has a much broader and multifaceted meaning which, in anthropological terms, can be summarised as a unified entity comprising multiple individuals, which outlasts its specific members, holding resources collectively as shared property, passed down to succeeding members of such entity (Vargas-Cetina 2015).



2011: 13). She shows how CSR successfully reconciles market logic and moral imperatives in that corporations claim their interventions not merely as economic strategies “but as a moral mission claiming both an underlying political motivation and social impact that reach[es] beyond the company itself” (ivi: 129). One of Anglo American’s strategies to showcase good corporate conduct is the use of the language of community, which, Rajak argues, is a “packaged and marketed [...] product [...] integral to the performance of CSR” (ivi: 46).

In some instances of my fieldwork, I observed that *ènostra* mobilised ‘community’ to frame an ethical and sustainable approach to developing and acquiring renewable energy facilities. As I show in Chapter 5, *ènostra*’s directors and employees were keen to showcase to the members how the cooperative considered the broader societal and environmental impacts of renewable energy development. I provide insights on how efforts to embed social and environmental responsibility in economic activities through certifications, labelling and cause-related marketing (Dolan & Rajak 2016) are not confined to corporate capitalism but also pervade the non-profit sector. As an organisation that aspires to compete in the market with large energy utilities, *ènostra* was susceptible to the seductions of CSR. Because corporations have usurped “the moral high-ground” once occupied by non-profit organisations (Rajak 2011: 8), the latter can no longer elude the language of CSR to demonstrate their commitment to social and environmental impact. I interpret *ènostra*’s efforts to formulate a sustainability policy for their renewable energy facilities as a strategy to ‘institutionalise’ ethical principles that were once informal. As *ènostra* grew, both in terms of members and renewable energy facilities, directors and employees were faced with the question: How can ethical commitments be demonstrated when direct interactions with members become more difficult?

The cooperative’s growth is another theme I explore through the lens of the anthropology of organisations. A common understanding of cooperatives idealises these organisations as immutable and self-contained entities. Although cooperative

actors may evoke ideas of community to describe their economic strategies to shield members from market influences, anthropologists warn that they are neither static nor isolated entities (Rakopoulos 2020). In his study of Sicilian cooperatives in confiscated Mafia lands, Theodoros Rakopoulos (2015) reveals that his interlocutors recognised a sense of community sentiment in the lifestyle of Mafia-influenced movements outside the cooperative sphere rather than in the legalistic notion of community upheld by cooperative administrators. Moreover, Rakopoulos (2017) demonstrates how clan-based organisations in the agro-food sector transitioned to cooperative models in response to shifts in social and economic structures in Sicilian communities formerly under Mafia influence. In another context, focusing on anti-austerity movements in Greece, he shows how the growing organisational demand for mutual aid prompted informal networks within the social and solidarity economy to aspire to formalise into structured cooperatives (Rakopoulos 2014). Similarly, Gabriela Vargas-Cetina (2005) examines how weavers' cooperatives in Chiapas, Mexico, addressed the challenges posed by limited support for rural producers and urban initiatives by demonstrating remarkable adaptability and responsiveness to global markets. Due to their transient nature and susceptibility to ongoing change and uncertainty, the scholar describes cooperatives as 'ephemeral associations' (Vargas-Cetina 2015). Drawing inspiration from these insights into the transient nature of cooperatives, I illustrate the trajectory that led *ènostra* to become the large-scale organisation it is today and its endeavours to align its entrepreneurial ambitions with social and solidarity principles.

Moving from *ènostra* 'as a whole' to the individuals who 'live' the cooperative, I focus on the 'organisational selves,' a concept coined by Gideon Kunda (2006) to describe how workers manage their organisational roles. This involves examining how individuals navigate multiple and often conflicting personal, professional, corporate, and public responsibilities. I am particularly inspired by Jessica Smith's (2021) work on engineers working in the Colorado mining and oil and gas industries. Smith explores the emergence of accountability within the operations of engineering

professionals working for corporations. Focusing on engineers prioritising social responsibility, she unveils how the corporate environment pressures workers to reconcile various accountabilities, including formal regulations, professional ethics, public expectations, and personal values. Engineers grapple with distributed responsibilities as participants in multiple ethical domains, where direct agency over their actions is not always clear and rarely possible. Similarly, my interlocutors in *ènostra* exhibited competing accountabilities, influenced by their roles within the cooperative and personal life trajectories. Their responsibilities were shaped by intricate networks of connections, encompassing obligations towards the broader community and environment, the cooperative and its members, and themselves as individuals. While Smith recognises volunteering as a CSR practice extending into intimate realms of corporate identity, I explore how *ènostra* members and workers navigate, and sometimes challenge, voluntarism as an inherent aspect of the social and solidarity economy that, in Italy, has been ethicalised and capitalised through years of post-welfare political programmes (Muehlebach 2011; 2012; 2017; 2018).

#### The anthropology of 'economic ethicising'

One of economic anthropology's most influential currents of thought emphasises that examining the interplay between 'community' and 'the market' can lead to a deeper understanding of economic life. According to Stephen Gudeman (2008), the community serves as 'the base' of an economy, as markets' establishment, maintenance, and evolution depend upon it. Gudeman conceptualises this base as "entities that people appropriate, make, allocate, and use in relation to one another" (Gudeman 2022:47-8), asserting its localised and historically contingent nature. Within this framework, communities encompass not only small groups like households, bands, or tribal organisations traditionally associated with peasant economies but also collectives within industrialised economies that share common interests (Gudeman 2022: 46). This understanding of community, influenced by the work of Karl Polanyi (1944), informs interpretations of alternative economies as 'closed' systems

vis-à-vis the 'open' systems epitomised by global neoliberal markets, characterised by the segregation of production and consumption into distinct spheres (De Neve et al. 2008). In my thesis, I push further interpretations of energy cooperatives as communities seeking to carve out a niche within the capitalist economy. While my findings underscore that economic activities within *ènostra* are more than mere financial transactions, as they are imbued with ethical values, they complicate our understanding of the energy community's relation with the market. In my analysis, I draw on anthropological perspectives on 'economic ethicising.' Stephanie Mauksch defines 'economic ethicising' as a subfield of economic anthropology interested in exploring how "calls for moral action are received, embraced, manipulated, utilized, or evaded by workers, producers, followers, and others" (Mauksch 2022: 267). This emerging field of study contributes to anthropology's enduring examination of moral economies and everyday ethics by embracing programmatic ethics as a subject of inquiry. Research on 'economic ethicising' primarily centres on practitioners who view ethics as something to be articulated, applied, and enacted. Unlike ordinary ethics and morality as a foundational framework for everyday behaviour (Lambek 2010b), this domain delves into a sphere of activity where ethics assume the role of a professional category and specialised field (Gallenga 2016). The anthropology of 'economic ethicising' entails examining strategies and practices of institutionalised efforts to foster economic ethical conduct, including CSR, business ethics, social entrepreneurship and ethical consumerism (Mauksch 2022).

Some scholars suggest that in certain spheres of economic ethicising, such as CSR and social entrepreneurship, practitioners tend to refrain from explicitly elaborating and defending the philosophical underpinnings guiding their actions (De Neve 2009; Cross 2011; Mauksch 2017; Teasdale et al. 2021). Instead, practitioners often frame ethics in instrumental terms, viewing it primarily as a set of implementable principles. Consequently, they embrace ethical considerations as a standardised set of immutable rules, which overlooks the notion of embedded, negotiated, and everyday ethics. In the thesis, I challenge this perspective by demonstrating how even

standardised rules are flexible and open to re-evaluation in response to evolving collective and individual moral considerations, particularly in light of the escalating perception of the climate crisis. Those who conceptualise economic ethicising as a self-standing realm of ethical practice align with Ghislain Gallenga's perspective that "for theorists and anthropologists, ethics is an intellectual exercise, a meaning-building process, a mode of producing moral subjects, or a research question. For the business world, [...] ethics is an analytical and managerial tool, immutable and preconceived" (Gallenga 2016: 15). Other scholars see less demarcated boundaries between ethical behaviour in business practice and everyday life, positing that capitalism is just one among many tangible foundations for ethical visions. For Jamie Cross, in his study of social entrepreneurs in India's solar industry, "the pursuit of social and environmental goods, perhaps even the very possibility of being good, hinges on the knowable ground that is constituted by relationships and systems of market exchange" (Cross 2019: 51).

In this thesis, I critically engage with notions of ethical consumers and prosumers (a combination of the words 'producers' and 'consumers'). Ethical consumers have been defined as people who base decisions about what to consume on their assessment of the moral nature of the social, economic, environmental and political context where the objects they consume are produced (Carrier 2012). Their activities can vary widely: opting for an ecotourism destination over a conventional resort, using their own bags instead of those provided by stores, abstaining from purchasing cosmetics tested on animals, choosing train travel over flying, and so on. Ethical consumers make their consumption decisions based on "their decisions on their assessment of the context of the objects on offer" (Carrier 2012: 1). A crucial aspect of ethical consumption is that it unfolds within a market economy. Ethical consumers seek to infuse their economic transactions with social and environmental values to escape capitalist consumption. However, their transactions rely on the market to achieve this goal (De Neve, Luetchford and Pratt 2008). Conversely, prosumers are commonly understood as wanting to avoid the market altogether, even though this is sometimes impossible.

Prosumers (have been described as “ethical consumers who transform their lives in ways that reduce commerce to an absolute minimum, preferably relying on autarky and non-monetary exchange of goods” (Mauksch 2022: 271). Unsatisfied with the ‘ethical’ goods found in stores or rejecting the act of buying, they strive to consume the goods they produce themselves. Prosumers grow and gather food and other products for their own subsistence rather than selling them and engage in informal practices of exchange of goods (Kosnik 2018). By examining the notions of ethical consumers and prosumers that emerged during my fieldwork, I challenge polarising views that see the former as connected with and the latter as opposed to the market. I show how my interlocutors’ conceptions of ethical consumers and prosumers surfaced as contiguous and both in tension with the market, yet different precisely due to the influences of market relations. Drawing on anthropological views of the ‘moral economy,’ I underscore the differences between the two notions. I follow James Carrier’s (2018) suggestion to focus not only on values but also on the obligations and relations that emerge from economic transactions and that drive them forward. I argue that, rather than social and environmental values, what distinguishes prosumers from ethical consumers in ènostra is that the former engage with a specific economic arrangement with the cooperative, benefiting both ends.

Anthropologists have highlighted how certain products can evoke ethical consumers’ imaginative, transcendental, and emotional responses (Berlan 2012; Luetchford 2012; Vramo 2012). The imagery of fair-trade and related concepts, like ecotourism, may elicit pity and feelings of paternalistic or environmental concern. For instance, In her study of fair-trade cut flowers traded within the Kenyan-European horticulture commodity, Catherine Dolan (2008) argues that fair-trade labelling and auditing are markers of ethical value and moral responsibility for the consumers. Dolan shows that while consumers champion fair trade for its emphasis on ‘trade’ rather than ‘aid,’ aiming to address poverty through dialogue, partnership, and fair exchange, Kenyan producers perceive the same exchange as charity, revealing deeply unequal patron-client relationships. By portraying African workers and farmers as impoverished,

needy, and passive, fair-trade initiatives justify corporate actors and consumers as ‘modern saviours’ capable of rescuing ‘the poor.’ Therefore, James Carrier advises that fair-trade “encourages a fetishism of commodities that tends to undermine ethical consumption in ways that ethical consumers may not perceive and that may conflict with their values” (Carrier 2010: 675). Moving from a critique of the political effectiveness of their actions, I focus on my interlocutors’ representations of their ethical and political commitment to buy electricity from *ènostra*. I take inspiration from anthropological reflections that highlight people’s concerns about alienation in production, particularly in agro-food systems. For people who practice ethical consumption, the possibility of ascertaining the origins, manufacturing processes, and contents of goods imbues the latter with the potential to erode the spatial and temporal divide between production and consumption (Carrier & Luetchford 2012). Ultimately, this enables consumers to imagine themselves in a direct relationship with producers.

Agro-food systems have emerged as a primary domain where individuals endeavour to establish an alternative to capitalist consumption, driven by ethical concerns and practical considerations. Ethical consumers contend that most agricultural practices are environmentally unsustainable, relying on exploiting finite resources like soil, water, and fossil fuels. They criticise the social dynamics within production, which result in workers receiving wages below subsistence levels and farmers selling their produce at prices below production costs, necessitating subsidies or welfare for survival. Several ethnographies explore movements, organisations, and individuals globally striving to reshape people’s interactions with food and its supply chains (for comprehensive coverage, see Pratt et al. 2014). Notably, individuals who collectively purchase goods directly from producers, known as solidarity-based purchase groups, have attracted the attention of economic anthropologists (Grasseni et al. 2013; Grasseni 2014). These groups have experienced remarkable growth in recent years, particularly across Europe, with a significant presence in Italy. In the thesis, I explore the connections between food and energy grassroots initiatives within their social,

cultural, and geographical contexts that have facilitated the emergence and expansion of *ènostra*. I contend that food is a fertile terrain where my interlocutors experiment with metaphors and analogies to establish relationships that transcend traditional market paradigms. Concurrently, I underscore the distinctiveness of this process concerning electricity, which, due to its material and immaterial properties, stands as a ‘special commodity’ (Bakke 2019; Özden-Schilling 2021; Abram 2022). My interlocutors drew on food metaphors to make sense of how consumers can actively engage with the electricity supply chain.

### The anthropology of infrastructure

The topic of electricity immediately brings infrastructure into focus. Electricity may initially appear as intangible and nearly imperceptible matter (Abram 2022). It holds intrinsic significance to life, manifesting through various natural phenomena such as lightning, geomagnetism, electric fish and animals, and the functioning of the nervous systems of living beings. Like other physical forces, electricity has undergone extensive domestication throughout the last two centuries, yet humans’ perception of it remains limited to its secondary effects. These effects encompass essential aspects of modern life, including lighting, heating, transportation, communication, and other services crucial to contemporary human existence, crucially linked to the electricity infrastructure. Commonly known as ‘the grid,’ this infrastructure is extensive and complex, requiring a vast apparatus that ranges from large-scale power stations to intricate micro-level components for transmission (Bakke 2019). Even in regions lacking a centralised electrical grid, people use electricity-powered devices and appliances that significantly impact and alter everyday life and social dynamics (Vannini & Taggart 2015; Forde 2017; Singh et al. 2017). The ubiquitous nature of electrical infrastructure presents paradoxical situations. While it may go unnoticed by many individuals in areas where people have access to it, it remains an “ever-present irritant” (Abram 2022: 741) and an inaccessible resource in less privileged contexts (Cross 2017; 2019a). This juxtaposition underscores the complexities and socio-



economic disparities intertwined with the presence and distribution of electric current globally.

Anthropological studies have highlighted the challenges scholars face in examining infrastructure, given its multifaceted connotations across diverse social contexts (Venkatesan et al. 2018). A central focus of these studies revolves around infrastructural politics, emphasising the contrast between the tangible elements of infrastructure — i.e., the material artefacts — and the transformative capacity of these elements to foster connections or bolster specific projects — the organisational ramifications of infrastructures (Harvey et al. 2017). In their seminal work on the anthropology of infrastructure, Penny Harvey and Hannah Knox (2015) focus on two major infrastructural projects in Peru: the Interoceanic Highway and the Iquitos-Nauta Road. They conceive of infrastructure as a dynamic process entwined with state formation, social interactions, and political dynamics. Harvey and Knox meticulously examine the interplay between human agents and material components, mapping the diverse stakeholders involved in these projects to delineate the power dynamics emergent in road construction, establishment, and utilisation. They shed light on two pivotal facets: the imaginative dimension and the expertise deployed in infrastructure development. More recently, Penny Harvey, Casper Bruun Jensen, and Atsuro Morita underscored that infrastructures represent “technologically mediated, dynamic forms that continuously produce and transform socio-technical relations” (Harvey et al. 2017: 5). By acknowledging the prominent role of technology in shaping infrastructural systems, the scholars posit that infrastructure can influence social relations through engineered (i.e., planned and intentionally crafted) or non-engineered (i.e., unplanned and emergent) processes. Drawing on these insights, I explore community energy and infrastructure relations. By focusing on the role of engineers in designing a future energy system, I explore the perspectives and inputs that engineering thinking brings to policy formulation for expanding community energy, as well as the personal and professional views that inform ethical conduct.

Ethnographic studies on electricity infrastructure have examined two primary contexts: areas where the grid is either absent, accessible to only a portion of the population, or undergoing introduction (Winther 2008; Gupta 2015; Ulsrud et al. 2015; Kesselring 2017; Cross 2019a), and areas where the grid is firmly established and/or undergoing reconfiguration due to the adoption of new technologies (Bakke 2016; 2021; Özden-Schilling 2019a; 2019b; 2021). In the former case, anthropological research has focused on the intricate interplay between established local realities and electricity's transformative potential, influencing a broad spectrum of anthropological inquiries. These include perceptions of place, risk assessments, discussions on modernisation, communal and domestic behaviours, traditional ceremonies, local economic and political structures, diverse social dynamics ranging from citizenship and familial ties to gender roles, intergenerational relationships, and human/non-human interactions. On the other hand, scholars have uncovered technologies, actors, conflicts, knowledge and economic processes behind this mostly unseen tentacular infrastructure that provides essential services to large parts of human populations.<sup>3</sup> The grid is a “system of intense and broad electric interconnectedness that relies on structures of data collection and analysis” (Özden-Schilling 2019a: 162), a centralised infrastructure accessible only to specific types of experts, thereby excluding users from participating in grid-level decision-making processes. As such, it is sometimes contested by individuals and communities from rural and suburban locations who perceive it as a form of urban-centric governance and feel treated unfairly by those who make grid-level decisions (Özden-Schilling 2019b).

These studies, particularly those focusing on the ‘established’ grid, serve as a foundation for my ethnographic investigation into the conceptualisation and design of renewable energy collectives in Italy. Even when individuals are disconnected from traditional power grids, these grids retain fundamental infrastructural significance,

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<sup>3</sup> See Winther and Wilhite (2015) for a comprehensive review.

leading to diverse forms of engagement with the infrastructure — both literal and figurative — and influencing the construction of desires, imaginaries and forms of life (Winther 2008; Cross 2017a). This dynamic is particularly relevant to the Italian context, where the existing grid is undergoing reconfigurations. Despite its magnitude, the grid is an unstable system subject to overheating, hazardous sagging of its line, continuous expansion and mutation. In her pivotal work, Gretchen Bakke (2016) explores the world's first and largest electricity infrastructure: the 'American grid.' Through a historical reconstruction of the grid that takes the reader back to its first manifestation in 1870s San Francisco, Bakke reveals the technological, political, economic and regulatory process that helped establish it while sketching its decay and inevitable transformation due to the integration of renewable energy and its technologies. The emerging "smart grid," some argue, will reconfigure the relationship between power facilities, energy utilities and end-users by placing the latter at the core of a new, small-scale and widely distributed infrastructure that will ensure resilient and reliable energy (Thronsen & Ryghaug 2015; Bulkeley et al. 2016; Angel 2023). In my work, I investigate the kind of collectives that emerge in relation to the imaginaries sparked by technology (Bruun & Hasse 2022). Regarding the development of renewable energy collectives, terms like 'community' can evoke varied visions and values. I examine these collectives through the lens of the grid, elucidating the ethical considerations that arise within its techno-economic domain (Özden-Schilling 2021).

## Methodology and Research Ethics

The fieldwork I have undertaken for this research was influenced by both my academic interests and practical considerations, particularly those shaped by the challenges posed by the COVID-19 pandemic. In ethnographic research, defining the research site is intricately linked to opportunities for access, the constraints encountered, and the development of trustful relationships established during interactions between the researcher and their interlocutors (Falzon 2016). This section provides a detailed

exposition of my research methodologies, discussing my engagement and positioning within the field and addressing the ethical considerations that emerged throughout the research process. Through this discussion, I seek to contextualize the ethnographic insights and analyses presented in this thesis while also acknowledging the inherent limitations of this study.

#### Ethnographic destiny: Planning, interrupting, reorienting research

Ten months into the pandemic, as 2021 dawned, my now wife Eleonora and I returned to our home in St Andrews following a rejuvenating Christmas break in Italy. This festive interlude granted me a brief respite, a pause amidst the flurry of an intense academic semester. The latter part of 2020 had been a whirlwind of tutoring, extensive reading, and concerted efforts to advance my Mexican project. Yes, my Mexican project. When I embarked on my PhD journey in September 2019, my sights were set on a project centred around sustainable development, or as it is termed locally, ethno-development, with various indigenous communities nestled in the Sierra Norte de Puebla of Central Mexico. My earlier foray into ethnographic research during my Master's study had kindled a desire to dig deeper into the politico-ontological tapestry of how indigenous inhabitants conceptualised 'life projects' as a means for asserting their ownership and control over natural resources (Blaser 2004; 2013; 2019; Ødegaard & Rivera Andía 2019). As I crafted my doctoral research proposal during the first year of my doctoral studies and initiated contact with potential collaborators in Mexico, I unearthed a compelling narrative woven around indigenous autonomy and self-sufficiency, imbued with themes of local energy systems.<sup>4</sup>

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<sup>4</sup> In tandem with broader national trends, the hyphenated neoliberal energy reforms of the 2010s triggered a surge of interest from both state entities and multinational corporations in large-scale renewable energy ventures (Howe & Boyer 2015; 2016; Boyer 2019). In the Sierra Norte region, the proliferation of hydroelectric projects encroaching upon rivers adjacent to indigenous communities sparked concern among activists, local committees, and various civil society organizations, prompting mobilisation against so-called energy 'megaprojects.' Concurrently, certain indigenous communities commenced collaborative efforts with a

As I was finalising my research proposal, COVID-19 was unfolding across the UK and many parts of the globe. The onset of the Covid-19 pandemic brought about the first lockdowns, marking a profound transformation of people's everyday life. As the world grappled with the escalating impact of COVID-19, I began to comprehend the substantial repercussions this crisis would have on my research. Prompted by a directive from the Scottish Graduate School of Social Sciences (SGSSS), I requested a scholarship extension and a revised research plan during the summer of 2020.<sup>5</sup> Initially, I harboured the optimistic belief that I could commence remote fieldwork with the energy cooperative I had established contact with in Mexico and await the opportune moment to travel once the pandemic's disruptive effects subsided, bolstered by the promise of vaccines. Between September and December 2020, my interactions with the Mexican cooperative were sporadic owing to logistical challenges. This small organisation faced operational difficulties due to unreliable internet connections and time zone gaps, forcing my realisation that meaningful progress required a physical presence. In January 2021, the vaccine roll-out had just started in some parts of Europe, and I had to wait until June 2021 to get my first job in the UK. This timeline shattered my hopes of conducting research in Mexico within a feasible timeframe for completing my PhD. The realisation was a chilling reality check, causing profound emotional turmoil as I had invested significant expectations and ambitions into the Mexican project.

With considerate guidance from my supervisors and unwavering support from Eleonora, I recognised that keeping the focus on community energy but reorienting

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cooperative based in the state capital of Puebla, focusing on the development of off-grid solar installations. On this topic, I wrote a blog post published on the Centre for Energy Ethics website (Sapochetti 2020).

<sup>5</sup> The SGSSS is the facilitator of funding, training and support for Scotland's doctoral students in social science. It is part of the Doctoral Training Partnerships funded by the Economic Social Research Council (ESRC).

my research site to Italy, my home country, offering easier access amidst COVID-19 restrictions would restore momentum to my project. Therefore, I started desk-based research on community energy initiatives in Italy. Around mid-January 2021, I came across a book titled *Come si fa una comunità energetica* ('How to make an energy community'), narrating the story of *ènostra* (which the reader will encounter in Chapter 2). Reading the book, I was captivated by the accounts of the challenges and the achievements of what the authors saw as an alternative 'from below' to the dominant energy utilities. So, I started pondering and became fascinated with reframing my research as an organisational ethnography. With some hesitation, I emailed Sara Capuzzo and Gianluca Ruggieri, who served respectively as the President and the Vice-President of *ènostra*, to express my interest in conducting ethnographic research on the cooperative. I apprehensively waited for their response, wondering whether they would consider my request, but a few days later, I received their proposal to meet online and discuss it in more detail.

Multi-modal and multi-sited ethnography: Crafting the organisational field  
"So, what do you say?" Gianluca inquired, leaning back slightly at the end of our virtual meeting. Gianluca, an environmental engineer and self-described 'energy activist,' also held positions as a university lecturer and Vice President of *ènostra*. During our conversation, Gianluca succinctly recounted *ènostra*'s inception, reminiscing its formative stages and outlining recent cooperative projects. He emphasised the importance of a 'participatory pathway' to enhance member engagement within the cooperative. Shortly after, Sara joined our discussion, elaborating on the *attivazione* (lit. 'activation') of Renewable Energy Community (REC) projects nationwide. Concluding our discussion, Gianluca candidly asked which avenue, among those they had presented, I wanted to follow more closely. The meeting took me somewhat by surprise for two reasons. On the one hand, I was pleasantly astonished by their keen interest in having me around to conduct research. During my experience collaborating with environmental organisations and activists in Mexico and conversations with

colleagues working in similar settings, I harboured concerns about potential scepticism regarding “academic extractivism.” This concept, originating from Latin American theories of political economy to delineate developments in the mining and oil export sectors (Gudynas 2018), has evolved to encompass more than mere discussions about resource industries. It now embodies “an ideology and cultural logic that permeates social imaginaries” and cultural productions, extending into academia (Szeman & Wenzel 2021: 505). On the other hand, I found myself unable to provide an apparent response to their inquiry on what particular aspects I wanted to focus. What may not always be immediately evident to scholars and individuals outside the field of anthropology is that ethnography is an adaptive method built upon the premise that “it will not be immediately apparent what the relevant dimensions of contextualization will be, and so the full research question cannot be anticipated in advance and nor can the appropriate field in which to study this question be fully defined at the outset” (Hine 2015: 25).

The research questions I sought to pursue were also influenced by my efforts to steer clear of “academic extractivism” and build trust with my interlocutors. This involved actively listening to their inputs, prioritising their interests and engaging in meaningful dialogue to ensure that my research was respectful and genuinely reflexive of their experiences and objectives. This concern was amplified by the significant presence of media and other researchers focusing on *ènostra* and its activities for their own purposes. From the onset, I sought to engage with what Gianluca and Sara deemed most relevant to the cooperative’s development to counteract this tendency. Consequently, I started by focusing on two areas they highlighted as priorities — the ‘participatory pathway’ and the RECs — to ensure that my research aligned with the cooperative’s interests. As a result, I began to follow the process of member engagement with the cooperative and the development of the REC project, structuring my preliminary questions about community energy around these areas. In particular, I followed Sara and Gianluca’s prompt to help the cooperative understand better how to foster member participation in these two contexts. This

approach meant that, for extended periods, I prioritised listening and helping with practical tasks involved in their activities rather than probing too deeply into what they were saying and doing. Especially in the initial stages, I believed that the most sensitive approach was to reciprocate the trust my interlocutors placed in me by supporting their initiatives and demonstrating my commitment to help. It is hard to deny that, at times, this felt exhausting and frustrating, as I often had little time and energy left to catch up on my field notes and reflect on my observations meaningfully. However, the trust I built and the sincerity I cultivated in my relationships with my interlocutors over time, as I came to learn more and care about their work and lives, meant I felt more comfortable offering my critical perspective. This also encouraged me to adopt a critical approach in writing about *ènostra*, prompting me to confront and highlight the connections between the cooperative and the forms of corporate capitalism they contest and the contradictions involved. At the same time, as I developed closer relationships with my interlocutors, they became increasingly willing to share personal and sensitive issues with me, sometimes related to their experiences within the cooperative. As I explored different segments of the organisation and established closer ties with specific individuals, I also discovered underlying tensions within the cooperative. I always tried to respect the boundaries my interlocutors indicated, consistently seeking their guidance on which details to incorporate into my writing and respecting their wishes regarding anonymity. In cases where preserving anonymity was challenging, I exercised discretion and refrained from mentioning certain aspects or people to avoid jeopardising organisational relationships.

These considerations compounded the challenge of conducting most of my fieldwork online while interacting with interlocutors from various regions of Italy. I had to explore and reflect on how to adapt to these unexpected conditions to enhance my ethnography. George E. Marcus's (1995) influential insights into anthropological research on 'world systems' (or large social orders) redefined contemporary ethnography through the concept of multi-sited fieldwork. This approach goes



beyond a simple replication, in multiple locations, of established processes that occur within a single site; instead, it involves reconceptualising the field as coming into being through ethnographic engagement (see also Marcus 2011). In a world of endless connections and intertwined contexts, the ethnographic field “cannot simply exist, awaiting discovery. It has to be laboriously constructed, pulled apart from all the other possibilities for contextualization to which its constituent relationships and connections could also be referred” (Amit 2000b: 6). The emergence of virtual worlds further complicated the ethnographer’s task to construct the field, due to the challenge of establishing a meaningful online presence through diverse modes of interaction (Hine 2015). These modes include (but are not limited to) emails, chats, blogs, forums, video calls, and online surveys, some of which are associated with generally low response rates (Boellstorff et al. 2012). Ultimately, multi-sited and digital ethnography put prolonged and continuous immersion in the field, a milestone of ethnographic practice, to the test. When ‘living’ and ‘immersing’ oneself in a local setting is not possible, where does the ethnographic epistemic gain lie? A long epistemological discussion about the possibilities of ethnographic fieldwork beyond the traditional conception of physical co-presence in the same geographic space has revisited the ideological scaffolding on which this conception rests (Amit 2000; Faubion & Marcus 2009; Marcus 1995; 2011). James Faubion (2009) called for a liberation of ethnography from the symbolic and identity-defining burden of the equation between prolonged stay in one place with repeated visits to the same or similar physical locations and anthropological accuracy. I agree with Faubion that what sets anthropology apart is its approach to critically analysing research questions and defining its subjects conceptually rather than focusing solely on the specific methods used in research or the professional roles and ideologies associated with it.

The pandemic has stimulated further reflection on ethnographic practice. In 2020, right at the outset of the pandemic, a group of scholars wrote a manifesto to consolidate an underlying methodological and theoretical perspective in ethnographic research (Güne et al. 2020). This approach, which they call “patchwork

ethnography,” points out that “[f]amily obligations, precarity, and other hidden, stigmatized, or unspoken factors [...] have made long-term, in-person fieldwork difficult, if not impossible, for many scholars” (Günel & Watanabe 2024: 131). Patchwork ethnography does not advocate for short-term, instrumental trips and relationships akin to those of consultants. Instead, it addresses how evolving living and working conditions fundamentally alter knowledge creation while upholding tenets of anthropological practice such as enduring commitments, linguistic proficiency, contextual understanding, and slow thinking. During the early stages of fieldwork, I felt particularly attuned to patchwork ethnography. This perspective allowed me to critically assess my position as a doctoral student in Social Anthropology during the pandemic, especially considering the structured nature of Social Anthropology PhD programmes in British universities, which generally expect students to complete them within four years. These programmes typically schedule fieldwork in the second year, lasting at least one year, after which the student returns to write up their findings in the final year. The schedule is quite tight, considering the unpredictability of ethnographic fieldwork and the task of writing an ethnographic manuscript in one year. Despite receiving extensions and funding support, I faced additional time pressures and challenges in initiating and keeping momentum in fieldwork due to the pandemic’s restrictions. Patchwork ethnography encouraged a “kinder and gentler way to do research because it expands what we consider acceptable materials, tools, and objects of our analyses” (Günel et al. 2020: n.p.). This perspective helped me turn emotional challenges into opportunities for epistemological reflection. For instance, my immersion in the online spaces of the cooperative was punctuated rather than continuous, alternating moments of intense engagement with interlocutors with moments when I felt that ‘nothing was going on.’ During those moments, I focused on tasks that ethnographers usually ‘suspend’ at the fieldwork stage, such as literature review and data analysis. Similar to what other researchers experienced, I alternated reading and reflecting on my data with interviews, participant observation, and fieldnote-taking, which allowed me to inform one another of these tasks iteratively (Greatrick et al. 2022).

Moreover, I experimented with uncommon research techniques in anthropology. For example, when I started immersing myself in the *ènostra* world, I did it asynchronously through recorded virtual meetings organised by *ènostra* as part of the ‘participatory pathway’ outlined earlier (see Chapter 3 for a detailed discussion). Asynchronous engagement, which happens when participants are not required to be simultaneously present online, is a common practice in virtual communities. Anthropologists adapt to this non-simultaneous interaction mode when they conduct virtual ethnographies (Tratner 2016). Although Gianluca facilitated my access to these meetings, the ethical implications of accessing their content without the participants’ explicit knowledge raised questions, which I will discuss in the subsequent section. Much of my ethnographic data also stemmed from online media sources, particularly YouTube videos featuring past annual meetings, public addresses by the cooperative’s directors, and interviews with members. Eventually, I also started attending real-time meetings and sought permission to join the mailing list for comprehensive updates and insights into ongoing discussions and forthcoming events. These meetings lacked a fixed schedule and attracted participants from various regions of Italy who were establishing ‘local groups’ to function autonomously in different locations. Over time, I developed a closer rapport with the Milan local group, mainly thanks to Salvatore, an *ènostra* member who often volunteered for the cooperative and was eventually hired by *ènostra*. He introduced me and invited me to the group’s monthly online meetings. During the initial months of my fieldwork, from March to June 2021, I also participated in several webinars broadcast live on *ènostra*’s private YouTube channel. These sessions were tailored to enhance members’ understanding of various energy topics, such as electric vehicles, the energy crisis, and the roll-out of a national policy framework on renewable energy communities. Concurrently, I initiated phone conversations with Sara and her team, who were deeply involved in the design and execution of REC projects. This initial contact eventually led to my involvement in numerous meetings and workshops the team organised nationally (Chapter 6). As my interest in the subject deepened, I expanded my engagement by attending webinars

organised by external institutions unrelated to ènostra. Conducting patchwork ethnography also involved collaboration. Between May and September 2021, I conducted approximately 20 online interviews with ènostra members hailing from diverse regions of Italy. For these interviews, I collaborated with Costanza Concetti, a fellow PhD candidate in Geography at Durham University, who was conducting her doctoral research on the decentralisation of the energy system in Italy from a new materialism perspective. Subsequently, I conducted follow-up interviews with select individuals from this cohort throughout the rest of the fieldwork period. I utilised a combination of semi-structured and unstructured interview techniques to gather insights from ènostra workers, current and former members of the board of directors, and clients involved in REC projects facilitated by the cooperative. Additionally, I collaborated with ènostra's then-Vice-President Gianluca Ruggieri and his colleague Chiara Candelise, an economist from the University of Bocconi (Italy), with whom I co-authored a book chapter.

In September 2021, following the partial relaxation of restrictions during the second lockdown in Italy, I relocated to my hometown, located 30 km southeast of Rome, to facilitate closer collaboration with ènostra. That October, I had the opportunity to participate in a pivotal event in Umbria: the celebration of the cooperative's inaugural collectively financed wind turbine, a significant milestone for ènostra with which I opened this chapter (see also Chapter 4). Subsequently, I was included in both the general WhatsApp group chat of the cooperative and the dedicated WhatsApp group chat of the REC team, reflecting my increased involvement and active participation in their weekly virtual meetings. In December 2021, I accompanied the team to the southern region of Apulia for presentation events of two REC projects in Apulian towns. As elaborated in Chapter 4, ènostra's employees predominantly operated remotely, with limited physical presence at the Milan office and dispersed across various regions of Italy. Therefore, my interactions and engagement with the team primarily occurred through online platforms, particularly video conferencing. However, in May 2022, with the easing of the final round of COVID-19 restrictions, I

transitioned to conducting in-person fieldwork at the Milan headquarters of the cooperative for two months. In June of the same year, I participated in the cooperative's first in-person annual meeting since the onset of the pandemic. This allowed me to meet numerous members, including those who had travelled from different parts of the country, particularly from the northern regions. I kept digital and physical diaries throughout my fieldwork to capture my annotations and reflections from participant observation. I opted for handwritten rather than digital notes during face-to-face meetings and in-person events, as I found it more conducive to active listening and engagement. Given the predominantly digital nature of my research, my digital field notes naturally expanded in length compared to their physical counterparts. I integrated excerpts, summaries, and whole sections from my physical notebook into 'e-field notes' to address this discrepancy. The term 'e-field notes' emphasises that these are not mere digitised versions of handwritten field notes but rather a comprehensive compilation that transcends traditional field-based writing practices (Sanjek 2016). These extend beyond traditional field-based writing such as diaries, letters, official records, and local archives to include forms of writing that reflect the relevance of digital platforms, the Internet, and mobile devices. My e-field notes included online meeting scripts, video conferencing chats, and social media interactions.

The patchiness of fieldwork also depended on the specific context I was investigating. Doing ethnography in organisational settings challenges or involves the ethnographer's skills in ways that deviate from conventional ethnographic practice. These challenges include ongoing restructuring, transitions, adaptations, the dispersed nature of locations, and the influence of media-driven conversations and modes of communication. Moreover, the individuals with whom the ethnographer engages in dialogue are frequently "well-educated, highly skilled professionals (sometimes with advanced academic degrees) who challenge or engage the skills of the ethnographer in ways that differ from the conventional perception of what it is like to 'engage with the locals'" (Garsen & Nyqvist 2013: 2). Laura Nader (1972) famously

advocated for the idea that to tackle the most critical modern issues, anthropologists needed to ‘study up’ higher-status individuals or institutions and reconsider the emphasis placed on participant observation, acknowledging that there are other more effective techniques for investigating the problems we face. In response to these challenges, Hugh Gusterson (1997) proposed ‘polymorphous engagement,’ meaning that ethnographers should interact with interlocutors “across a number of dispersed sites, not just in local communities, and sometimes in virtual form; and it means collecting data eclectically from a disparate array of sources in many different ways” (Gusterson 1997: 166). My fieldwork with *ènostra* necessitated engagement across diverse physical and virtual locations and adopting varied data collection methods. It also demanded interaction with different segments within the cooperative. These segments included members, workers, clients, specific teams, and former affiliates who often operated independently of each other. Moreover, the presence of boundaries within the organisation, essential for its functioning, underscored the particular interests of individuals and groups, raising ethical considerations, as elaborated in the subsequent section. Although cooperatives are predicated on member equality and participation ideals, they exhibit structured roles and boundaries reflecting social, economic, gender, and power dynamics. *ènostra* was no exception. Thus, I had to ‘study through’ the boundaries to explore the interconnections and tensions among its diverse segments. Furthermore, I went beyond these boundaries to unravel the connections and networks between the cooperative and other actors and institutions in the energy world in which *ènostra* is embedded (Johnson 2019; Wight & Reinhold 2011).

### Research ethics and positionality

Ethics in ethnographic research is intertwined with any anthropological work’s epistemological and ontological foundation. The insights anthropologists can gain about a particular context and the assumptions they form are intricately tied to and carry consequences for the individuals and communities they interact with during

fieldwork. Anthropological knowledge is constructed within a web of responsibilities, trust, and friendship between the researcher and the people involved at various levels. As a result, the ethical dimension of ethnographic work extends beyond the conventional ethical guidelines established by research institutions, which often rely on abstract principles. It necessitates developing awareness and reflexivity regarding the social and political dynamics of the research context in which the anthropologist is immersed (Murphy & Dingwall 2001; Cannella & Lincoln 2018). This includes an awareness of their own position within this context and their potential impact on it. Ethical questions arise from the onset of ethnographic fieldwork, especially in cases like mine where no pre-existing relationships existed between researchers and their interlocutors. George E. Marcus and Douglas R. Holmes (2020) emphasise the enduring concern of access in fieldwork. Engaging with pertinent individuals is arduous, time-consuming, and vexing, constituting an indispensable yet unavoidable aspect of early-stage field research. In some instances, individuals encountered in the initial stages of fieldwork may evolve into what was traditionally termed 'key informants,' possessing specialised knowledge pertinent to the researcher's interests. The selection of key individuals may be influenced by mutual agreements and a desire to foster connections, or it may be constrained, leading researchers to rely on specific individuals or a small cohort (Coffey 1999). These individuals may also be 'gatekeepers,' pivotal in enabling or restricting anthropologists' access to research settings, information, and other individuals.

Access challenges are particularly pronounced for anthropologists operating within the institutional and organizational landscapes of the energy sector. Energy companies, in particular, present barriers stemming from corporate security concerns, restricted information, commercial strategies, and embedded power dynamics. These factors, combined with the dynamic nature of the research environment, the relationships among employees, and the researcher's own positionality, collectively shape access to energy institutions, prompting some scholars to reevaluate the notion of 'good access' (Müftüoğlu et al. 2018). As

mentioned, my initial interaction with ènostra began through direct contact with Gianluca and Sara, who held the highest positions within the cooperative. Both individuals played a crucial role in shaping my journey in ènostra by showing immediate interest in my research and presenting various options to kickstart my exploration of the cooperative. While this approach initially seemed convenient, it also involved ethical considerations, which I already discussed in the previous section.

Further ethical questions arose concerning the particular modalities that characterised my research. When I commenced observing and documenting the recorded 'participatory pathway' e-meetings shared with me by Gianluca, I felt justified in consulting these materials due to the Vice-President's authorisation. However, I was not at ease with listening to conversations among participants without their awareness. Therefore, during my first opportunity for direct engagement with the e-meeting participants, I introduced myself, explained my research objectives, and obtained verbal consent to utilise the data from the recordings. Over time, I also sought written consent from most individuals involved in these e-meetings through a participant consent form. I chose to distribute this form during one-on-one interviews rather than disrupt the friendly and engaging atmosphere of group events with formal requests. As I regularly attended ènostra's online meetings and events, my presence within the cooperative became increasingly recognised by a growing number of participants actively involved in the cooperative's activities. Gradually, asynchronous engagement began to feel as spontaneous as other forms of interaction. This emotional transition was aided by the realisation of becoming embedded in a community in which, for many members, the asynchronous mode is the main form of engagement.

On the other hand, initiating contact with ènostra through the Vice-President and the President necessitated carefully coordinating and negotiating access with them. This required persistent and patient initiative, as Sara and Gianluca were frequently busy and unable to address my outreach promptly. It also involved revisiting established



agreements with interlocutors, especially during the interview phase. For instance, Costanza, the PhD student with whom I collaborated, approached Gianluca about a month after I had started my fieldwork, and the Vice-President prompted us to consider such collaboration. After discussions with both Gianluca and Costanza regarding potential methodological overlaps that would not compromise the integrity of our respective research, we decided to proceed with collaborative interviews. This decision also considered the sensitivity of requesting additional time and effort from members, especially during the pandemic, to ensure their well-being. During the joint interviews, Costanza and I maintained a respectful approach by bringing our own inquiries and allowing equal time for each of us to engage with interviewees. We also agreed to the possibility of incorporating the responses to the other's questions into our research, acknowledging our collaborative effort in the writing process. As Keith M. Murphy (2020) has pointed out, social anthropology has not readily embraced collaboration as part of its methodology. The image of the solitary anthropologist remains prevalent in the field, and fundamental collaborative activities, such as data sharing, are not widely practised. Collaboration between researchers may take various forms, including several researchers operating in the same field location, multiple fieldworkers in various sites contributing to a unified project, or simply co-conducting fieldwork and co-gathering data for independent research projects (Murphy 2020). Costanza and I took the latter avenue as an 'exception' (Boyer & Marcus 2020) to navigate the circumstances brought about by the pandemic.

Costanza and I considered the potential for collaboration in other fieldwork instances, such as conducting participant observation with the REC team during the occasional visits to the localities where REC projects were being developed and conducting interviews with *ènostra's* clients. However, Sara, President and leader of the REC team, was concerned that bringing two researchers along with the team would 'overcrowd' the field, something that she wanted to avoid because the people they were working with were already overwhelmed by journalists and researchers from different institutions. Eventually, Costanza's fieldwork took her to follow other leads

outside ènostra. Moreover, our conversations with Sara led us to reassess our interview arrangements with ènostra's members. Following a brief consultation with Gianluca, we took the initiative to reach out to potential interviewees individually. Prompted by Sara, we reconsidered that and arranged with the President to circulate a call for interest in participating in the interviews through ènostra's media channels. Sara was genuinely concerned that our spontaneous initiative would interfere with the cooperative's — and, as the President, her own — responsibility for the level of commitment asked of the members. Thus, we paused the ongoing interviews and waited for interested members to contact us through the form. This pause and revision slowed the interview process but ensured alignment with the cooperative's and Sara's responsibilities regarding member commitments. These examples show how researchers may need to reconsider their ethical practice in light of their interlocutors' own ethical concerns.

Collaboration not only characterised my engagement with fellow researchers in the field but also extended to my interactions with ènostra. Relocating to Italy during the latter part of my fieldwork marked a notable shift in my position within the cooperative. Although most interactions remained virtual, I gained access to various communication platforms utilised by ènostra workers and became a regular participant in their meetings, particularly those involving the REC team. As I began contributing my insights to these meetings and was acknowledged as a 'collaborator' of ènostra, there was a perceptible shift in how the staff viewed and related to my presence — from that of an external observer to a position more akin to a colleague or intern. This transformation had significant implications for my own understanding of my 'ethnographic self' (Coffey 1999) and prompted more profound reflections on my positionality within the field. During the initial phase of my fieldwork, I contemplated expanding the scope of my ethnographic study to encompass other energy cooperatives. However, as I immersed myself in the field and developed a closer working relationship with the ènostra staff, gaining insights into internal work dynamics and commercial strategies, I found it sensible to abandon that idea. ènostra,

as an organisation, is embedded in a system of market competition where it vies with other energy players. My transient presence in the cooperative sometimes elicited playful banter from staff like “Don’t share too much information with him, he’s gonna sell it to others” or “He’s gonna start up his own cooperative in Scotland, and he’ll call it *It’s ours*.” The irony of these remarks underscored a “strategic intimacy” (Müftüoğlu et al. 2018: 225), signalling that I was crossing the threshold of a relationship based on familiarity and trust between colleagues.

Collaborating with interlocutors also raised the question of “why they let me in” (Coleman 1996: 338), suggesting that if an organisation views the ethnographer as a potential asset to their business, they are more inclined to grant them access. As elaborated in Chapter 6, I believe that the REC team saw my social science expertise as a benefit, facilitating my access to the team. This collaboration yielded enriched ethnographic insights that I leveraged to analyse their activities. On the other hand, my involvement with the members led to distinct implications and prompted varied reflections regarding my positionality. Establishing a close relationship with Salvatore led me to participate in the meetings of the local Milan group and some of the events they organised to promote *ènostra*. As I illustrate in Chapter 3, these active members were primarily driven by an ethos of responsibility, motivating their deep engagement with the cooperative’s activities and fostering a rather explicit political affiliation to *ènostra*. While engaging with them, I felt attuned to the circumstantial activist described by Marcus (1995), whose activism is defined by the personal connection they develop with their interlocutors rather than uncritically embracing their cause. At the same time, engaging with my interlocutors’ ethical and political commitments pushed me to reflect on my own stance towards energy ethics. As a profoundly political subject, energy often gets entangled in researchers’ implicit or explicit value judgments. While only a few researchers theoretically and empirically engage with ethical questions, strong moral convictions inform much research about energy. In particular, discussions on the urgent energy transition in response to climate change frequently assert an ethical position on which energy futures are desirable or just. For

instance, Thomas Love and Cindy Isenhour argue that a global energy transition is now inevitable and that anthropologists should help cultivate “plausible postcarbon narratives” (2016: 8). Similarly, some scholars see anthropology’s role as contributing to energy studies by supporting the shift from fossil fuels towards a more sensible and sustainable energy future (Strauss et al. 2013). As Jessica Smith and Mette High (2017) have pointed out in their interpretation of energy ethics, by framing certain types of energy sources and futures as inherently good or desirable, we limit our ability to understand how the people we study perceive their world. This approach highlights the need for self-reflection on whose voices are prioritised, what perspectives our analytical frameworks reveal and what they might conceal. As someone deeply aware of climate change’s adverse effects on human and non-human well-being, I shared my interlocutors’ concerns about the need to take action towards a low-carbon future. Moreover, during my Master’s fieldwork in Mexico, I was involved in various initiatives to raise awareness among indigenous communities about large-scale extractive projects’ social and environmental impacts. Despite my active participation in these efforts, I have never considered myself an activist. My role has always felt more like that of a listener, striving to understand the complexities of their situations rather than imposing preconceived views. I sought to create a space for dialogue where the voices of marginal people could be amplified, acknowledging that they were the true representatives of their experiences and struggles. This perspective has informed how I approached fieldwork at *ènostra* and enhanced my awareness of the complexity of the connections between energy and ethics. Rather than uncritically advocating for the ethical causes my interlocutors strove to embrace, I sought to understand how these made sense in the multifaceted landscape of the social, political and personal experiences that shaped their moral frameworks.

My background as an Italian male researcher also influenced my positionality within the field. As I mentioned at the beginning of this section, my nationality played a significant role in my decision to reorient my field to Italy. Besides the implications of COVID-19, I considered that conducting fieldwork in the country I grew up in would

enable interactions with my interlocutors in other ways. Being an Italian native speaker and sharing many cultural references with my interlocutors fostered a sense of familiarity and helped me to access and understand metaphors and linguistic nuances more deeply (see, for example, my analysis of how my interlocutors reinterpreted a popular Italian song in Chapter 4). At the same time, the regional difference between me and my interlocutors meant that I was not always fully aware of the specific local and political contexts in which they were embedded. This was particularly relevant in the case of the social and solidarity economy initiatives, which are more prevalent in Northern Italy compared to Central Italy, where I am from. As I accompanied some of my interlocutors from Northern Italy during their interactions with individuals outside *ènostra* who were involved in social and solidarity economy networks, there were moments when I felt 'out of place' and uncertain about how to justify my presence. While these moments occurred, my interlocutors often supported me by introducing me to others, making me feel at ease and following up on details that seemed obvious to them but were unclear to me. One aspect that seemed significant to my interlocutors' perception of me was that I was an Italian studying and living in Scotland. This aspect often elicited their curiosity, resulting in questions about my experience living abroad and my plans for the future, which provided useful icebreakers on many occasions. Simultaneously, being a researcher in an English-speaking institution led to distinct expectations regarding research dissemination. While some believed that writing my research in English would benefit the cooperative by amplifying its resonance beyond Italy, others seemed uncertain about its relevance to the local context. To address this point, after completing my fieldwork, I actively pursued opportunities to communicate my insights in Italian. For instance, I interviewed an *ènostra*'s communication officer, which led to a newsletter article accessible to all members.

Reflecting on my positionality also made me consider how my male gender might have affected my ability to interact with female interlocutors during fieldwork. During my previous research in Mexico, my identity as a male significantly influenced my

interactions. Other men frequently invited me to spaces and activities typically inaccessible to women or where women's presence was deemed inappropriate, such as social gatherings after work in the field. Conversely, in indigenous communities characterised by high levels of gendered violence, my being male hindered my ability to talk with many women, fearing harmful reactions from their husbands, relatives, and other male community members. In ènostra, I had a very different experience regarding how gender dynamics shaped my interactions with interlocutors. Unlike my previous research settings, the cooperative environment allowed me to engage more freely with both male and female interlocutors. This was notably evident in my relations with ènostra workers, where men and women were equally represented. Our relationships and those among the workers were marked by a mutual effort to cultivate respect and inclusivity. Simultaneously, I had significantly fewer interactions with female interlocutors within the members' segment of ènostra. Most ènostra members I engaged with were indeed men. While it is difficult to assess whether and to what extent my gender discouraged ènostra women members from engaging with me, these limited interactions reflected a general trend within the cooperative. Through personal communication with Aurore Dudka, a researcher who had previously studied gender dynamics within European energy cooperatives like ènostra, I learned that female members participated significantly less in ènostra's activities than male members.

### Limits of the research

In considering the limits of my work, I refer both to practical conditions that hindered a deeper exploration of certain aspects and methodological choices to focus more on other elements. In this sense, I simultaneously understand limits as 'limitations' and 'boundaries.' It would be impossible to address this research's limits without acknowledging the pandemic's impact. I tried to transform the challenges of limited face-to-face interaction and travel restrictions into opportunities to explore innovative research methodologies, which enriched my study in ways that traditional

in-person fieldwork might not have allowed. However, I acknowledge that the absence of extensive in-person fieldwork limited my ability to observe and participate in daily, nuanced social interactions and practices crucial to a deeper understanding of my interlocutors' ordinary lives beyond the cooperative. Much of my ethnographic fieldwork has unfolded within the structured settings of the organisation, such as meetings, webinars, and events, but this has broadened the depth of my insights into the dynamics of cooperative life and the shaping of its organisational ethics. Nonetheless, the limited time spent 'hanging out' with my interlocutors outside organisational settings obscured the more informal, everyday aspects of their social lives and their articulations of ordinary ethics (Lambek 2010). The absence of observation and interaction with my interlocutors in non-organisational settings, such as the domestic sphere, prevented me from meaningfully exploring how they engaged with their ethical sensibilities in the mundane practices of daily life. Attending to explicit and tacit unconscious actions and language embedded in ordinary practices is essential for anthropology to gain deeper insights into how people navigate their moral predispositions. Directing the ethnographic gaze toward how *ènostra* members understand their daily consumption habits, both energy-related and otherwise, would have deepened my exploration of their ethical commitment to the cooperative. This would have offered a richer analysis of how being part of *ènostra* is integral to and shapes personal projects of a good life.

Apart from the practical limitations of virtual fieldwork, the choices linked to research ethics and positionality detailed in the previous section somewhat limited the breadth of my research. I would have benefitted from insights into the dynamics of other energy cooperatives for a more nuanced understanding of how 'community' was conceptualised, practised and imagined at the intersection of ethics and the economy within an expanding community energy sector in Italy. Similarly, engaging with people identified as the 'beneficiaries' of REC projects — besides *ènostra*, its clients (usually Town Councillors that led the project locally) and the policymakers, on whose perspectives I build for my ethnographic analysis of energy imaginaries — would have

provided a more critical perspective on the politics of the implementation of RECs. The anthropology of development has consolidated methodological and theoretical frameworks to analyse and critique the power dynamics generated in the encounters between donors, NGOs, and other institutions and local communities (Ferguson 1996). In these encounters, the perspectives of the latter often become neglected, obscured, and suppressed. What visions, expectations, and hopes does 'community energy' generate among the people targeted by project developers? To what extent do the policy and the developers address these instances? What reactions do these projects elicit within the local communities? Anthropology is well-equipped to study how energy policy can influence or specifically target aspects such as people's livelihoods, lifestyles, self-perception, and ethical considerations. It can swiftly move from policymaking circles to communities affected by policies, providing insights into the internal processes of expertise that shape policies while simultaneously analysing the impacts of such policies (Johnson 2019).

The partial connections (Strathern 2004) I make throughout this thesis also reflect the limited space for dialogue with Italy as an anthropological object of study. As previously highlighted, Italy has a rich history of cooperatives and social and political movements aligned with them. Anthropologists have provided detailed and comprehensive examinations of cooperativism and its strong left-wing political culture, especially in specific regions of Italy like Emilia Romagna (Sánchez Hall 2018). They have scrutinised cooperatives' relations and reactions to the state and other institutions (Vargas-Cetina 2011; Rakopoulos 2017). I chose to 'cut' my field by focusing on the relations with contemporary movements and the relevant debates within the anthropological discussion on economic ethicising. A deeper investigation of the political milieu in which *ènostra* emerged through the political history of its founding members and other key interlocutors would have allowed such a dialogue. A regional approach could also add to discussions in anthropology about the practice of conducting 'anthropology at home.'



At the same time, to understand my interlocutors' understanding of what it means to 'do good,' I emphasised localised perspectives, practices and experiences. However, this approach inevitably entailed certain exclusions. Anthropologists have long debated the political risks involved in privileging 'local' views and concerns, which may lead researchers to overlook or underplay broader systemic issues and the global forces that affect local realities (Comaroff & Comaroff 2003). If it is true that anthropological objects of study are 'emergent,' and therefore that ethnographic fieldwork involves a considerable degree of serendipity, we must also recognise that the ethnographer's intentional choices to 'follow' certain individuals, objects, metaphors, and places significantly shape these objects of study (Coleman & Collins 2006). The ethnographer, then, faces the challenge of navigating multiple sites while accounting for the workings of increasingly interconnected issues across various scales. For instance, in analysing how my interlocutors' association of 'local' with renewable energy implies a connotation of 'goodness,' I privileged their localised views and experiences over tracing the global dynamics that shape energy transitions. Recognising the significant political asymmetry between, for example, a consumer's choice to switch electricity suppliers and the decommissioning of a coal-fired power plant — which could result in substantial job losses in a local community — I chose to focus on the ethical dilemmas raised by my interlocutors' localised experiences. This approach allowed me to ground my ethnographic exploration of these ethical dilemmas in their operational contexts: the people that constitute the cooperative, as well as the spaces and places where they discuss present, plan, and implement the cooperative's activities.

## Outline of the chapters

This introduction has offered insights into the central theme of the thesis: the pursuit of the 'good' at the intersection of a non-profit organisation and the capitalist electricity sector. I have reviewed relevant literature and the key anthropological debates my work engages with, outlining my scholarly contributions. Additionally, I have provided an overview of my methodology, positionality, and research ethics to

shed light on my fieldwork experience. In the following chapters, I analyse how the pursuit of the 'good' is articulated by the different actors I encountered in the field, ranging from the founders, the employees and the 'active members,' the members, the sales and marketing team, to the team dedicated to developing renewable energy collectives. The thesis structure also unfolds chronologically, starting from the origins of the cooperative to my interlocutors' engagements with energy futures.

Chapter 2 traces the expansion of *ènostra*, starting from its humble beginnings as a small non-profit association in 2007 called *Solare Collettivo* and transformed into the cooperative *Retenergie*, eventually leading up to the establishment of *ènostra* and the subsequent merger between these entities. Through an exploration of the narratives of key leaders who took turns at the helm of the cooperative during its various phases, this chapter illuminates how distinct visions of enterprise emerged as the organisation ventured into the electricity market, simultaneously with its expansion. The chapter aims to integrate a historical narrative with an examination of the dreams to scale up as a 'community enterprise' within the electricity sector.

Chapter 3 guides the reader into the cooperative through the perspectives of its practitioners: workers and members who, at various degrees, are engaged in the cooperative's operations. After introducing *ènostra*'s organisational structure, the chapter delves into an ethnographic analysis of the 'cooperative selves.' Departing from managerial approaches to the study of organisations, I leverage anthropological perspectives on organisations to highlight aspects such as personhood, ethical subjectivities, and responsibility at the core of my inquiry. I investigate how individuals within the cooperative navigate voluntarism as an ethical disposition typical of the non-profit sector, which blurs the distinctions between employees and 'active members.' Through this exploration, the chapter elucidates how the 'cooperative self' is shaped by many responsibilities, encompassing broader societal and environmental concerns, the cooperative's mission and its members, and self-care.

Chapter 4 examines the relationships between the cooperative and its member-users, particularly those who purchase electricity from *ènostra*. These relationships are underpinned by various economic arrangements that revolve around concepts such as ethical consumerism and prosumerism. I analyse the complex interactions between the cooperative and the national electricity economy while exploring narratives and metaphors related to *autoproduzione* (lit. 'self-production'). By drawing on anthropological perspectives on economic ethicising and electricity infrastructure, I reveal how the tensions between the cooperative's ethos and market dynamics influence perceptions of ethical consumption and prosumerism within the electricity sector.

In Chapter 5, the discussion transitions to corporate responsibility and the meanings associated with 'renewable,' 'ethical,' and 'sustainable' as part of *ènostra*'s marketing strategies for its electricity. Building on earlier discussions, this chapter delves into the genesis and articulation of ethical and sustainable concerns across various levels, including collective values, individual sensibilities, and formalised principles within the cooperative. These principles are not static but evolve over time, shaped by evolving societal and environmental concerns prompted by the climate crisis and the urgency to accelerate the transition to renewable energy. The chapter highlights the coexistence of diverse moral scales, indicating the complexity of energy ethics within the cooperative's context.

Chapter 6 deals with the visions and imaginaries of an energy future based on renewable energy collectives. In this chapter, I focus on the *ènostra* team dedicated to designing and developing community energy projects in response to introducing a specific policy framework. Upon exploring the visions of a specific *ènostra* team and their clients, I illustrate how the notion of 'sharing' that underpins these visions deflects from the notion of 'sharing' contained in the policy. While ideals of solidarity and political participation inform the former, the latter is a techno-economic principle

that reveals the bureaucrats' (policymakers and energy authorities) imagination of an energy future as centred on neoliberal subjectivities. I explore how the engineering work of renewable energy collectives design is defined by a pragmatism in which ethics and techno-economics are not at odds.

In Chapter 7, I offer my concluding thoughts and discuss the broader relevance of my work. I highlight how my ethnography of *ènostra* challenges preconceived classifications of 'community' and how 'community' emerges as an aspiration rather than a descriptive category. I explore how anthropology could contribute to a deeper understanding of grassroots energy. I propose different yet interrelated approaches to investigate civil society's engagement in energy development through three themes: the commons, democracy, and citizenship.

## Chapter 2:

# How Do We Grow Up?

At ènostra’s annual meeting in Milan in June 2022, the atmosphere was electrified with anticipation. Approximately 60 members from various regions of Italy gathered in the parterre of the ‘hangar’ — the largest hall within the Milanese co-working space that houses ènostra’s offices — for the first in-person annual meeting held since the pandemic (Figure 5); at least as many members participated virtually through the cooperative’s YouTube channel.<sup>1</sup> After ènostra President Sara Capuzzo’s inaugural presentation, soon-to-be-appointed director Davide Zanoni ascended the platform to deliver the pivotal announcement that the cooperative had reached the milestone of 10,000 members. The room erupted in jubilant applause, underscoring the significance of this momentous achievement. The number 10,000 transcended mere numerical value; it embodied the collective aspirations, poignant frustrations, enduring hopes, and occasional setbacks accrued for 14 years since the foundation of Retenergie. Symbolically, 10,000 marked a transition into a new stage of the cooperative’s evolution. As Marco Mariano, the first President of Retenergie, reflected during our chat after the meeting, “I recall, in our early days, when we spoke of reaching 10,000... yes, it was our objective, but we all recognised it as a formidable figure,” emphasising his initial scepticism. “Witnessing its realisation fills me with immense pride,” he said, indulging his enthusiasm. When I asked Marco why 10,000

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<sup>1</sup> The annual meetings have consistently been held a hybrid format to ensure the inclusion of members residing far from Milan. This approach permitted online members to actively engage by following the discussions, posing questions and comments, and exercising their voting rights. Furthermore, prior to the pandemic's onset, the in-person meeting's physical location was rotated to different Italian cities each year.

was so important, he pragmatically replied that, in the calculations that accompanied the merger of Retenergie and ènostra, this number emblematically represented the threshold at which they envisioned attaining a financial equilibrium. From an economic standpoint, this outcome realised a long-sought objective that ènostra's administrators had diligently pursued: economic sustainability.



**Figure 5.** ènostra annual general meeting. Milan, June 2022.

*Credit:* Author.

Commonly described as the economy's ability to sustain continued growth while ensuring a fundamental quality of life for all population segments, economic sustainability is frequently used as a yardstick in business economics (Muckle & Tubelle de Gonzalez 2016). Notably, it has become instrumental in evaluating companies' financial and economic proficiency, a dimension progressively interwoven with its social and environmental endeavours (see Chapter 5). According

to ènostra's founders, 5,000 supply contracts would have sufficed to achieve financial equilibrium, a figure the cooperative reached in 2019, enabling a more planning-oriented management approach (Painini 2019). The management reports from the successive years revealed a significant consolidation of the organisation, which was further solidified by attaining the cooperative's first-ever surplus in 2021. Some even considered reaching 10,000 members the ultimate objective, as ènostra successfully attained its economic objective, securing a positive margin to sustain its activities. ènostra was created in the cooperative spirit of "obtaining a return on capital invested, but with one of satisfying the general or mutual interest, to contribute to public welfare or to meet social demands made by some sections of the population" (Laville 2010a: 228). This spirit is underscored in ènostra's statute, wherein the objective is clearly stated as "to purchase and sell goods and/or services in the most advantageous way for cooperative members, aiming to improve the material and cultural conditions of members and their families and promote the conscious, eco-sustainable, and participatory utilisation and production of energy" (ènostra 2017: 1). However, ènostra's aspiration to bring about significant social change and enhance well-being on a broad scale had to be harmonised with the economic imperatives of operating as an enterprise within a competitive electricity market. This tension was eloquently captured by Gianluca Ruggieri, the former Retenergie Vice-President, and, during my fieldwork, the ènostra Vice-President. He succinctly articulated this challenge by noting that while 10,000 members might ensure financial stability, "if we're going to change the world, 10,000 are still few."

Across the thesis, I examine the nuances of ènostra's vision of an "energy transition from below" that, in their view, will lead to a more equitable, accessible, and appealing energy transition spearheaded by individuals, communities, businesses, social movements, and cooperatives. In this chapter, I lay the ground for this discussion by providing a historical account of and analysing the process of scaling up that underpinned ènostra's transformation from a grassroots organisation to a community enterprise. This process occurred within a predominantly capitalistic

economic sector, namely the Italian electricity economy. Within this context, accomplishing mutualistic, societal and environmental objectives is contingent upon maintaining economic and financial stability. In this sense, scaling up, or as it was often referred to by my interlocutors, “growing up” was a process of “doing enterprise, not business” that entailed transforming from a social movement-like to an entrepreneurial-minded organisation.

## Birth of a dream: Solare Collettivo

*Questa è la descrizione della nascita e della crescita di un sogno, è il racconto della forza della fiducia e della collaborazione, è la narrazione dell'alchimia fra la visione e la progettualità: questa è la storia della cooperativa Retenergie.*

“This is the description of the birth and growth of a dream; it is a tale of strength, trust and collaboration, a narrative of vision and planning: this is the story of Retenergie cooperative” (Mariano 2020: 23).

With such dramatic words, the opening chapter of *Come si fa una comunità energetica* (‘How to make an energy community’) published by Altreconomia transports the reader to the inception of Retenergie, the cooperative that in 2018 merged into ènostra.<sup>2</sup> While the narratives surrounding the history of ènostra and its merger with Retenergie are frequently recounted in promotional contexts and other public forums as a form of brand storytelling, the book is the first attempt at a meticulous and comprehensive chronicle of the origins of the renewable energy cooperative. Co-authored by Marco Mariano and four other founding members, the book illuminates the roots of Retenergie, particularly emphasising the pivotal role played by its

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<sup>2</sup> Altreconomia is an independent information magazine and publisher from a cooperative established in Milan in 1999. It is dedicated to exploring the variety of social and solidarity economy initiatives. The magazine's primary focus revolves around critical themes, including fair trade, ethical finance, international collaboration, conscientious tourism, environmental preservation, and human rights advocacy.



inaugural president. Hailing from the tranquil Piedmontese town of Villafalletto, Cuneo, Marco was not just a blogger and farmer but also the initiator of a cooperative farm. His profound fascination with alternative economies was cultivated through years of working the land, leading to a deep-seated awareness of the profound implications of food production on both human existence and the environment. Like other experiences worldwide, Marco regarded local, organic, small-scale agriculture as a viable alternative to the mainstream food industry, often perceived as undermining the non-monetary values of farming (Pratt 2014). Increasingly, farmers have faced the financial strain caused by the high expenses associated with specialised industrial agriculture and the challenges posed by global competition. These dynamics diminished their incomes and frequently compelled farmers to embrace environmentally detrimental practices to remain competitive. To counteract these trends, some attempted to implement resistance practices by implementing mixed farming systems and labour-intensive techniques to establish a more sustainable form of agriculture that relies less on industrial inputs (Pratt et al. 2014). Similarly, Marco embraced small-scale, organic farming as an attempt to realise values that go beyond the profit-driven realm of maximising revenue, encompassing cultural aspirations such as preserving the farm system as well as environmental concerns for sustainable farming practices, the preservation of biodiversity and mitigating the adverse aspects of industrial farming.

As “the most prominent area in which people try to realise an alternative economy” (Pratt et al. 2014: 3), food enables analogies on alternatives that can be applied to energy worlds. Such analogies, which operate as powerful heuristic devices through which *ènostra* members make sense of their approach to energy (see Chapter 4), also prompted Marco’s reflections on an alternative energy system. In his book, Marco writes, “From food production to energy production, the transition is swift” to succinctly encapsulate his perception that energy has evolved into a fundamental necessity for sustaining the quality of life familiar to the majority of the population of industrialised societies, and its production method indisputably influences the well-

being of humans and the planet (Mariano 2020: 24). In 2007, Marco initiated disseminating his reflections through an online blog. Through engagement with avid blog readers, the reflections evolved into a project for a photovoltaic (PV) plant on his farm. Marco started generating considerable interest in the potential of pooling resources for a PV installation, which quickly gained remarkable success. At a time when social media platforms like Facebook and X had not yet fundamentally transformed online communication and interaction (Miller et al. 2016), Marco's blog catalysed a collective endeavour. His proposal found its way across platforms dedicated to organic farming, renewable energy, and the sharing economy, capturing the interest of numerous individuals enthralled by this concept. Ethnographies of activism suggest that digital activists have to navigate the self-centred logic inherent in Web 2.0 technologies, which shifted from a network of hypertexts of Web 1.0 technologies to a system characterized by collaborative information creation, social networking, and leveraging the collective intelligence of users to generate value (Barassi 2015). These technologies have provided platforms for individuals to create communicative autonomy (Castells 2009), intricately linked to social and political agency. However, in their day-to-day interaction with Web 2.0 technologies, activists struggle to disentangle their political agency from the neoliberal individualistic autonomy (Castoriadis 1991) propelled by digital capitalism. Marco's initiative marked a significant breakthrough in the imagination of a collective project centred around energy, which the quote below emblematically describes.

Of course, these days I'm focused on the photovoltaic installation, and in between rounds, I've imagined this story: what we're about to do, what we want to do, or perhaps just dream of, goes far, far beyond a simple investment in energy. Each of those who have contacted me has their reasons for doing so, but I like to think that beneath all this movement, there's a drive that has something — I'm a little embarrassed to use this word — revolutionary. You all know that one of the great issues on which the future of humanity will be decided is energy. You know armies move,

governments fall, and skyscrapers are brought down to control energy sources.

[...] Those who control energy sources, much like those who control water, have had and will continue to have more power in the future. As isolated individuals, we have never been able to do much to counteract these powerful forces. However, this time we can. With the help of technology, something that even surprises me, as I've always viewed it with suspicion. This time, technology provides us with the means to produce energy, free ourselves from those who control it and use it as a weapon of blackmail. If you think about it, this idea is revolutionary. We all know what lies behind the world of oil, not to mention the environmental consequences.

[...] Well, starting the day after tomorrow, we can tell all these gentlemen to go... take a walk because we no longer need them. What a thing! I must be careful, or I'll end up with the roller and tractor in a ditch! I know I'm getting ahead of myself, that there's still a long way to go before replacing oil with renewables. But the path is open; do you realise that? And, most importantly, do you realise that building facilities to produce these types of energy is within the reach of us citizens? Maybe not individually; perhaps it requires studying cooperative forms like the one I've proposed, but it can be done!

To hell with nuclear power plants; besides the safety and waste disposal issues, they take 20 years to build and cost millions of euros. We can build our power plant in three months, and hundreds of other groups across Italy can do the same. That's it, I won't tell you what state I was in when I finished rolling my wheat. The next time I have to do a tedious job, I'm afraid I'll solve the global hunger problem... (Mariano 2007: n.p.).

Posting on his blog in February 2007, Marco attracted the attention of a growing number of people around the idea that something simple, mainly technical, could be turned into something transformative. Before even generating a single KWh, the vision

of individuals uniting to establish “their own power station” ignited the passion of those disillusioned with the existing economic system and determined to instigate change. In exercising his political imagination (Graeber 2006; 2009), Marco sought to destabilise a general belief that energy was solely the domain of governments and corporations while excluding civil society. He envisioned a pathway for citizens to engage with energy, where energy became the arena to bring an alternative reality into being (Graeber 2013), one that he imagined could challenge the power of a few energy oligarchs. For Marco, solar technology was not simply to be understood as a replacement for fossil fuels (and nuclear) but as a “force in the destitution and constitution of social and political forms” (Szeman & Barney 2021: 7). While I will expand on this point in Chapter 5, it is relevant to mention here that Imre Szeman and Darin Barney encouraged anthropologists to think about solar in terms of the “political and economic structures and relationships, as well as social and cultural upheaval” (ivi: 4) that it can generate rather than an energy source. Through the subversive language of the blog entry, Marco invited others to “join the revolution” that he imagined would gush from solar technology.

The first people who reached out to Marco were Giovanni Bert, a founder of a cooperative café based in Turin actively engaged in the solidarity economy movement, and Pino Tebano, who had relocated from Rome to work in the Piedmont town of Racconigi and shared a deep interest in alternative economies. As Pino explained to me in an interview, their meetings became more frequent and intensive, and the trio soon became a small group of people residing in different locations who maintained contact through phone calls, online communication, and occasional in-person gatherings.<sup>3</sup> As envisioned in the blog, the project should have been a ground-based installation set up in a field on Marco’s farm. Solar panels would be supported

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<sup>3</sup> Simultaneously, interest in the initiative reached a nationwide audience through mass media that started talking about it in TV reports, magazines and newspaper articles.

by poles planted in the ground, using a solar tracking system.<sup>4</sup> However, this idea was held back by what emerged as an ethical dilemma: Is it right to allocate rural land for energy production? Known as *consumo di suolo* ('lit. 'land consumption'), the process of converting agricultural land into urban or industrial land in Italy, as in many other countries, has increasingly intersected with large-scale solar plants. Since the second half of the 2000s, Italy witnessed a skyrocketing expansion of PV installations, making the country the world leader in installed capacity in 2011 (Mauro & Lughi 2017). In 2014, a year after Italy ended the generous subsidies for solar, around 50% of these installations were ground-mounted PV technologies (IEA 2014). This expansion raised concerns regarding landscape transformations, including various impacts such as changes in land use, reduced cultivable land, fragmentation of rural areas, plant degradation, visual alterations to the landscape, disruptions to local wildlife and plant life, microclimate variations, glare, and construction-related effects (Chiabrando et al. 2009).

The ethical dilemma stemming from solar technology's impact on land use, which later became a guiding principle for *ènostra's* approach to renewable energy development, led the group to choose a rooftop photovoltaic (PV) system. Since Marco's barns were considered technically unsuitable, they embarked on a quest to identify a host who not only adhered to environmental standards but also welcomed a grassroots approach to financing, enabling revenue sharing among the participants. Subsequently, they established a non-profit organisation named *Solare Collettivo* (which translates to 'Collective Solar'), with its headquarters in Racconigi, positioned halfway between Cuneo and Turin. In the middle of 2007, this non-profit association launched its inaugural photovoltaic initiative known as *Adotta un KWh* (lit. 'Adopt a KWh') atop the roofs of Proteo, a worker cooperative involved in waste management

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<sup>4</sup> A solar tracking system is a technology used in solar energy installations to enhance the efficiency of PV or solar thermal systems by optimising the angle and orientation of solar panels or mirrors to track the sun's movement throughout the day. This helps the solar panels or mirrors maintain direct sunlight, maximising the absorption of solar energy.

(Figure 6). Proteo emerged as a suitable partner, acting as a financial intermediary between Solare Collettivo and the PV plant. Occupying an “odd position at the junction of state and market, participating in both at once” (Rakopoulos 2015: 171), the cooperative form was selected as the ideal organisational form to take the PV project forward. Based on the principles of democratic members’ control and participation, cooperatives embodied the “imaginary projects of alternative societies” (Laville 2010: 6). With the financial support of Proteo and 40 other stakeholders from different regions across Italy, Solare Collettivo successfully realised its inaugural 20KWp PV installation.<sup>5</sup> To streamline the fundraising process, the group employed the following strategy: shareholders would become members of Proteo, which, in turn, would authorise the allocation of funds for the construction of the solar plant. Subsequently, the revenue generated from electricity sales would be distributed equitably annually among the members who financed the plant.

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<sup>5</sup> KWp (kilowatt-peak) is a unit of measurement used to quantify the peak power or maximum electrical output of a photovoltaic (PV) solar energy system. It indicates the amount of electricity a solar panel or an entire solar installation can generate under standard test conditions, typically in full sunlight.



**Figure 6.** Solare Collettivo delegates visiting the Proteo cooperative in 2007.

*Credit:* Mariano (2020: 32).

*Adotta un kWh* was the first of Solare Collettivo's initiatives, including workshops, training sessions, fairs and other public events to raise awareness about citizens' engagement with renewable energy. Among these initiatives, one, in particular, garnered significant attention: the *gruppi di acquisto fotovoltaico* (lit. 'photovoltaics purchase groups'). *Gruppi di acquisto fotovoltaico* (GAFs) were user associations dedicated to renewable energy that emerged in Italy in the early 2000s (Magnani 2021). Solare Collettivo was one of some associations with such a focus operating in Northern and Central Italy, the most prominent of which being *Energoclub Onlus*, based in Veneto, which has evolved into a sizable purchasing consortium to assist individuals in selecting and setting up residential photovoltaic solar systems and shared systems for condominiums. The members of a GAF typically consist of

individual households or, more frequently, small collective groups interested in photovoltaic systems. Pino once explained that GAFs functioned similarly to the *gruppi d'acquisto solidale* (lit. 'solidarity-based purchase groups') or GASs operating in the food sector. Pino explained that to me as follows.

So, the photovoltaic purchase group... imagine the *gruppo della spesa* [lit. 'grocery group,' as he referred to it, which is a synonym for GAS]: the same. Oranges, vegetables... it works the same way. We used to conduct extensive promotional activities in the local area through newspaper articles and meetings. Those who joined because they wanted to establish their own system, using their own funds and potential incentives — as there were incentives available back then for system installation — essentially became part of a group... There were ten, 20, 25 of us in each area. This group would then, through the association, approach a range of system suppliers — those who constructed the systems — and say, "Look, we're bringing you a package of 25 systems to be installed. So, you need to provide us with a fair price; you can't charge us like an individual who comes to you for a photovoltaic system." With this approach, we managed to set up photovoltaic systems.

GASs are one of the most common initiatives in the social and solidarity economy constellation that has grown systematically in the last few decades, especially in certain parts of Europe and North America. The social and solidarity economy is part of a wider galaxy of "human economies" centred "both on what people do for themselves and on the need to find ways forward that must involve all of humanity somehow" (Hart et al. 2010: 3). In particular, GASs are grassroots networks of consumers who collectively coordinate the direct procurement of food (primarily, but also various other everyday essentials), from chosen producers (Brunori et al. 2011; Brunori et al. 2012). Italy saw an exponential growth of these initiatives in the 2000s, with the number of GASs going from about 50 to almost 1,000 in just a decade (Grasseni et al. 2013), and many of my interlocutors were members of a GAS



themselves. Ethnographies of GASs emphasise that these initiatives combine individual or household consumption choices that privilege high-quality, sustainably and locally produced food with the capacity to forge social relations (Grasseni 2012; 2014). Several *ènostra* members who were also ‘gasistas’ (a term they used to describe belonging to a GAS) told me that one of the primary motivations for their involvement in a GAS was the opportunity to connect with individuals who share similar political and social views, which often evolve into friendships and collaborations in other initiatives. Some have pointed out that, in contexts that practice alternative approaches to food production and provision (e.g., community-supported agriculture programmes, neighbourhood food markets, etc.), food serves as a medium for building connections that are thought to exist beyond conventional market structures (Pratt et al. 2014). According to Grasseni et al. (2013), gasistas privilege purchasing goods from local, small producers rather than from mainstream retailers because of the distinctive non-monetary qualities of the formers’ products and the privileging of cultural, environmental, and social values over economic convenience. Gasistas “buy in solidarity” (Grasseni et al. 2013: 1) with producers in the sense that they consider the difficulties and costs implied in small and local farming enterprises. For example, some farmers (e.g., ageing farmers, young neo-rural entrepreneurs, etc.) may struggle to compete with larger suppliers who sell organic products because they are in an economically vulnerable condition that does not permit them to navigate the certification process (Grasseni 2007). At the same time, gasistas practice solidarity among themselves in the sense that their involvement in such initiatives implies a sort of advantage on the side of the consumers. Gasistas typically purchase substantial quantities of products from one or more chosen producers. Even if the price per individual item is higher than what large retailers offer, this bulk buying approach allows them to secure a favourable price for the entire bundle.

For Solare Collettivo, *gruppi di acquisto fotovoltaico* harmonised self-interested economic motives with a broader commitment to social and environmental concerns. During our conversation, Pino expressed this sentiment: “We believed that the more

photovoltaics we could have, the better results we could get regarding [environmental] sustainability. And to create networks between people, to collectivise.” For him, these initiatives sparked a collective endeavour aimed at shifting perspectives on renewable energy, thereby enhancing the readiness of many individuals to engage in renewable energy generation actively. This endeavour contributed to expanding grassroots renewable energy initiatives in Italy between the late 2000s and the early 2010s (Magnani & Osti 2016). Since its establishment, Solare Collettivo has actively advocated for and facilitated the installation of numerous residential photovoltaic systems, achieving the remarkable milestone of 100 PV projects in 2011 alone. The expansion of residential PV installations facilitated by Solare Collettivo mapped onto a broader national trend, further reinforced by the previously mentioned solar subsidies. Many individuals recognised the chance to reduce their energy expenses or, in some instances, generate income through domestic PV systems (Blasutig 2017).

Nonetheless, Solare Collettivo kept looking for new ways of engaging ordinary citizens with renewable energy. In 2012, they embarked on a new project called *Coltiviamo il sole* (lit. ‘Farming the sun’) that facilitated groups of individuals to collectively finance the construction of a rooftop solar plant on a farm owned by a couple hailing from a small town in the province of Cuneo, who bred goat and produced cheese. In return for the lent capital, they received a ‘payback’ in food products made from the farm. Simultaneously, Solare Collettivo replicated its first project (*Adotta un kWh*) by installing a new rooftop photovoltaic plant on the buildings of a fair trade-oriented cooperative, similar to the one implemented with the cooperative Proteo. Despite the success of their various initiatives, Solare Collettivo felt that they needed to take a further stride to realise the ‘energy revolution’ Marco and his fellow founders envisioned. Drawing from their experience, they recognised that a true breakthrough would necessitate entering the market as a more structured organisation capable of providing an alternative to profit-driven companies. In essence, they had to become entrepreneurs. One of the most inspiring passages in the book encapsulates this

pivotal moment: “If we really believe that a new energy management model is possible, and if we want to allow individual citizens to choose where to produce and how to manage the electricity they use in their homes, then we need to engage with the market” (Mariano 2020: 38). Their idea was to embark on a collective, people-centred entrepreneurial endeavour within the energy sector, guided by ethical principles and a participatory model. The path toward this objective led to the establishment in 2008 of Retenergie, the first national renewable energy cooperative.

### Dreaming of an enterprise: Retenergie

Cooperatives represent a central organisational structure worldwide, even though they frequently operate in the background compared to private corporations and government institutions (Rakopoulos 2020). According to the International Cooperative Alliance (ICA), an astounding 12% of the global population are members of cooperatives, which are defined as “autonomous association[s] of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” (ICA 2016: n.p.). Cooperatives have raised a range of intriguing questions for the social sciences, and various scholars, including anthropologists, have characterised cooperatives as a manifestation of “industrial democracy” (Holmström 1989, cited in Rakopoulos 2020: 4), a notion that reflects the aspiration to create an economy that is democratic, equitable, and participatory. Some describe them as manifestations of ‘associative capitalism,’ a middle-ground between traditional capitalism, based on aggressive competition, and a more collaborative or solidarity-based economic model (Sapelli 2015). Put differently, cooperatives are capitalist organisations because their philosophy incorporates capital and profit generation. However, these are included not for accumulation as conventional economic theory associates with capitalism, but rather to fulfil their social objectives upon the ground prepared by capitalism. For anthropology, the study of cooperatives implies, among other things, “an attention to

how these scale up towards larger markets and networks of political power” (Rakopoulos 2020: 5).

In December 2008, a group of 13 individuals who were deeply engaged in the initiatives of Solare Collettivo came together to officially establish the Renenergie Società Cooperativa (lit. ‘Retenergie Cooperative Company). The founding group comprised five individuals hailing from the Cuneo province, another quintet from the city of Turin, two members originating from Reggio Emilia in the Emilia-Romagna region, and a lone representative from the metropolis of Milan. The latter was Gianluca Ruggieri. While Gianluca viewed the regional character of the initiative as a minor aspect, I discovered through my interviews with Retenergie founders that this identity marker held a fascinating resonance, as I will elucidate in the next section. One day, Pino fondly reminisced about those earlier days, vividly recalling when he and his fellow Retenergie founders officially registered the cooperative’s statute at a notary’s office (Figure 7). “I still remember the subtle smirk that played on the notary’s lips as he perused our vision to generate energy and provide it to our cooperative members,” Pino told me in an interview. “His amusement was not unfounded; our aspirations seemed almost impossible back then. But we had a dream, a fervent belief that one day we could deliver the energy we generated directly to our members.” As I listened to Pino, I was captivated by the enthusiasm and optimism that drove his unwavering commitment to the project, harbouring an unshakeable belief that they would eventually be the reality they are today. Even though the specific form of the initiative remained unclear at that time, as became evident during my further inquiry, he stated, “We’ve always dreamt of it. Having dreams propels you to stride swiftly toward their realisation. This is exactly what brought us to where we are today: the unwavering belief that this narrative would one day materialise.”



**Figure 7.** Founding members of Retenergie signing the establishment of the cooperative at the notary office in 2008.

*Credit: Mariano (2020: 40).*

My interlocutors often used the word ‘dream’ to describe the journey that brought about *ènostra*, stemming from the initial idea of *Solare Collettivo*. As a cultural horizon in which humans speculate about the future (Appadurai 2013), dreams provide an entry point for an anthropological exploration of capitalism. For instance, in the Global South, anthropologists have delved into the capitalist aspirations of Kenyan unemployed youth, nurtured by the ideology of market inclusivity (Dola & Rajak 2018) or the varied responses and visions brought forth by economic regulations like the Special Economic Zones (Cross 2014). In the Global North, they have examined how individuals dream of financial success by riding the wave of speculative enthusiasm and visions of boundless expansion and perpetual future growth, as exemplified by Japanese derivative traders (Miyazaki 2006). They have also explored how private equity, operating as a somewhat concealed infrastructure beneath the global financial system, fosters entrepreneurial optimism and enthusiasm, motivating Colorado oil entrepreneurs to ‘dream big’; in doing so, these entrepreneurs articulate utopian

visions emphasising care and inclusivity, drawing on disparities within extractive economies (High 2022b). As Jamie Cross (2014) pointed out, these dreams conjure up utopian capitalist visions of industrial modernity, where widespread employment leads to prosperity and advancement, and mass production eradicates scarcity, stock the expectations and desires for enhanced living standards, upward social mobility, material well-being, and economic security, and improvement, amplify neoliberal ideals market freedom, where private companies are emancipated from governmental, political and cultural constraints. Still, they can also encompass oppositional aspirations involving popular movements against the state and capital, radical departures from the present, and envisioning alternative realities (Cross 2014). In the case of cooperatives, dreams of alternative realities are not necessarily built upon an overhaul of capitalism; instead, they often express a desire to address some of the deficiencies of the capitalist system by prioritising people over capital (Sapelli 2015). For Retenergie, this vision was centred on the concept that cooperative endeavours would be oriented towards serving their members' social, political, and ethical concerns, as Marco Mariano eloquently articulated it.

The message was to tell people: “Look, there are things you don’t like in the daily life you lead, maybe even significant and complex things. It’s not necessary to either oppose them or conform to them. There are other paths, which involve coming together and finding alternatives, discovering different routes that might ultimately lead to the same destination. That destination is the comfort of having a switch at home that allows me to turn on the light for reading in the evening or listening to music. These are all, so to speak, neutral things, neither good nor bad, but the path that brings electric energy into our homes is a path marked by blood, suffering, and destruction. It’s what we’ve always done, to some extent, in various aspects, but specifically in the energy sector. If we look at what’s behind the energy we all use — well, for those who aren’t here — it’s a path of exploiting the land and people. We believe that such a path doesn’t satisfy

us, and doesn't align with our worldview. So, let's make another one, let's come together, let's find alternatives. Things are always difficult, but the more difficult they are, the more opportunity we have to demonstrate our inventiveness, creativity, and our ability to adapt and transform realities we don't like.”

Echoing Marco Mariano's sentiments, Retenergie aimed to offer an alternative to the prevailing energy sector, viewed as deeply entwined with capitalist practices and, thus, ethically problematic. Their vision was to introduce a different economic model prioritising environmental and social responsibility, human well-being, collaboration, and active participation. In the upcoming three chapters, I will delve deeper into the intricate ethical framework where concepts of sustainability and solidarity come into play. However, here, I want to emphasise how my interlocutors envisioned the passage from a Solare Collettivo to Retenergie as an entrepreneurial journey. This journey was dotted with the challenges of harmonising the pursuit of the common good, a cause championed by choosing the cooperative form as an entrepreneurial type of organisation, with the demands of remaining financially stable in a fiercely competitive market such as the electricity economy. The ground for this entrepreneurial venture was laid by the changes in the energy market in the decades leading up to its establishment (see Chapter 4).

Until the early 1980s, for most economists, the electricity industry epitomised the concept of a 'natural monopoly,' where a single company was granted a license and regulated by a governmental authority to provide services within a defined territory (Özden-Schilling 2021). In the decades preceding the first experiments of liberalised energy markets globally, electricity stood out as a prime example of the impossibility of having competitive markets for certain commodities, mainly due to the substantial investment required for infrastructure that made it prohibitive for most potential competitors (Ulbrich 1991, cited in Özden-Schilling 2021: 2). The idea of a common energy market was one of the primary objectives of the European Union, set within the

provisions of the Single European Act (1986) and taken forward by the Maastricht Treaty (1992), which conferred specific competence in the field of energy to the EU bodies (Meeus 2020). In Italy, the turning point was Legislative Decree 79/99 (known as the Bersani Decree), which declared the activities of electricity production, import, export, purchase, and sale to be open to competition while reserving the activities of transmission, dispatching, and distribution for the state. Although fragmented and considered by some still provisional (Osti 2017), this process uncoupled the energy market from Enel's monopoly and opened it up to several competitors, including cooperatives.<sup>6</sup>

Between 2007 and 2017, about 20 citizen-led renewable energy initiatives were launched in Italy, comprising associations, cooperatives and limited companies operating nationally or locally (Candelise & Ruggieri 2020). In line with a broader European trend, many of these projects adopted a cooperative structure, with Retenergie as one of the few initiatives operating nationally. At the time of fieldwork, aside from Retenergie (which had merged with *ènostra* in 2018), two other cooperatives operated nationwide: WeForGreen and Energia Positiva. WeForGreen, derived from a locally-based cooperative called Energyland, was initiated by Venetian entrepreneurs with professional experience as managers in a local energy utility and mobilised a vast network of economic and financial actors (banks, insurance companies, businesses) to acquire unused land in the outskirts of the provinces of Verona (Italian North-East) and Lecce (Italian South-East) to build PV farms (Magnani 2013). Energia Positiva was founded in 2015 in Nichelino, in the province of Turin, and attracted around 70 members from different Italian regions with an average investment of a few thousand euros each (Barroco et al. 2020). The three cooperatives shared a similar feature — they “enlarged the territorial scale of their activities, both by developing projects in different locations across the country and by involving members at a national scale” (Candelise & Ruggieri 2021: 105). However, as some have

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<sup>6</sup> Enel is the formerly State-owned and largest Italian electricity company.



noted, compared to Retenergie, the other two placed great emphasis on energy as an investment and source of returns (Magnani & Patrucco 2018), which “follow a growth path more focused on [...] serving the interest of their members” (Candelise & Ruggieri 2021: 107), a view that echoed that of some of my interlocutors.

Retenergie aimed to generate electricity from renewable sources through *azionariato popolare* (lit. ‘popular shareholding’), a form of ownership where company shares are in the hands of as many individuals as possible, especially so-called ‘non-institutional’ investors (Ravazzi 1960). In Italy and other parts of Europe, popular shareholding is viewed as a means to promote fair participation in the financial markets, serving as a counterbalance to concentrated ownership by large institutions or a few affluent investors. Retenergie pursued this objective by introducing a modest membership fee, which made it more accessible to many individuals while relying on more substantial investments from some of them. The revenues generated from these investments were primarily reinvested in activities, such as energy services offered to members and the acquisition of new power plants, which did not yield direct financial returns. Nonetheless, Retenergie experienced steady growth during its initial years, both in installing new photovoltaic plants and recruiting new cooperative members. From 2008 to 2013, Retenergie focused on a singular goal: obtaining the electricity generated by photovoltaic plants funded collectively or through PV purchase groups. These efforts heavily depended on the Conto Energia subsidy scheme introduced by the State-owned energy service operator, Gestore dei Servizi Energetici (GSE), which compensated the producer with a feed-in premium fee for each KWh generated in addition to the revenue from the energy fed into the grid. This approach enabled Retenergie to install rooftop solar panels, compensate property owners for using their rooftops, and reimburse their members’ investments, even considering the high cost of photovoltaic technology at the time. Over five years, Retenergie completed the construction of seven photovoltaic plants, boasting an overall installed capacity of nearly 450KWp (Figure 8).



**Figure 8.** 50KWp solar facility on the roof of a high school in Cuneo, Piedmont. Established in 2010, the project was one of the several rooftop solar projects promoted by Solare Collettivo.

*Credit: Author.*

According to my interlocutors, human and relational factors were pivotal in Retenergie's expansion. This expansion was significantly influenced by the network of solidarity economy groups in which most members were involved. The cooperative benefitted from the voluntary commitment of its members, either as individuals or organised local groups, who presented and promoted Retenergie's projects and vision at various events, including fairs, seminars, and meetings across Italy. This practice continued through *ènostra* (see Chapter 3). Throughout its ten years of activity, members who had invested in the cooperative patiently retained their funds within its financial reserves. Additionally, members of the board of directors, who were the only salaried workers at the time, frequently decided to forgo their remuneration to alleviate the financial burden on the cooperative. For the funders, the members'

approach to finances illustrated the project's social significance, nurtured by a network of "savers who aim to give meaning to how they use their money instead of chasing the promises, often unattended, of finance" (Mariano 2020: 48). Members' investments functioned as a form of social currency, "primarily used to transform social relationships" as opposed to their value being "seen to lie in buying, selling, renting or otherwise disposing of alienable property" (Graeber 2012: 412). At the same time, Retenergie held the money of *soci sovventori* ('financing members') — as fellow cooperative members who invested in the cooperative were known — in high regard. This sentiment was reflected in an entrepreneurial mindset prioritising caution over risk, encapsulated by the unspoken principle of *far tornare i conti* ('make the numbers work'). This entailed ensuring a sufficient financial return to cover expenses while avoiding risky investments and budget shortfalls. Some attribute this prudent entrepreneurial approach to the distinctive Piedmontese mindset, which I will discuss in the following section. As for the cooperative facilities, upon the final release of the Conto Energia subsidies in 2012, Retenergie realised that investing in photovoltaics was no longer significantly more economically advantageous than other renewable energy technologies. Consequently, they opted to reassess their development strategy, incorporating hydroelectric and wind power into their plans. However, the task of identifying suitable projects presented a formidable challenge. Implementing wind turbines and hydroelectric dams proved significantly more complex due to the extensive permitting procedures and environmental assessments they entailed. Furthermore, hydroelectric ventures required obtaining a concession, allowing water use for economic purposes, even if the water is entirely returned to its source. Retenergie successfully launched only one wind project (60 kWp) in 2016, while hydro projects remained stalled. Between 2015 and 2017, the cooperative acquired three additional PV installations, nearly doubling their installed capacity.

Concurrently, Retenergie recognised that the combined support of its members' investments and government subsidies alone could not fully cover the cooperative's cash flow requirements. Consequently, they began exploring potential financial

support from the banking sector and identified a suitable partner in Banca Etica, an ethical bank intertwined in the social and solidarity economy networks. Ethical banks are financial institutions that adopt a political stance, emphasising their dedication to solidarity and viewing their practices as a novel form of collective action and public intervention (Laville 2010). One of the notable practices they employ is extending loans without a prerequisite for prior savings. Additionally, ethical banks encompass collective enterprises and initiatives aligned with ecological or social goals. They go beyond mere credit provision, offering supplementary services like guarantees, venture capital, and insurance, and actively participate in project oversight and contribute to public funds. They set themselves apart from other solidarity finance approaches, such as microcredit, which often overlooks the productive utility and focuses primarily on individual entrepreneurs. Instead, ethical banks subject financial interventions to a process of 'socialisation' of credit (Servet 2006, cited in Laville 2010: 26). Ethical banks have made significant inroads in Northern countries over the past few decades. In Europe, institutions from 11 countries have joined the European Federation of Ethical and Alternative Banks (EFEAB) since its inception in 2001. Founded in Padua, Veneto, in 1998, Banca Popolare Etica (lit. 'Ethical Bank') serves as a hub for individuals seeking to manage their finances responsibly and conscientiously (Carabini 2014). These investors are interested in supporting socioeconomic initiatives that align with environmental sustainability, human rights, and social responsibility. When depositing their funds, investors can specify the particular areas of activity to which their funds will be allocated (e.g., healthcare, welfare, education, social inclusion, environmental and heritage preservation, international aid and sustainable development, fair trade, etc.). For Retenergie, who ultimately became a shareholder in Banca Etica, this financial support played a pivotal role in various instances, such as establishing the rooftop photovoltaic plant within the indoor market in Boves, Piedmont (Figure 9).



**Figure 9.** Rooftop solar plant in Boves, Piedmont.

*Credit: ènostra's website.*

### Closing the loop: ènostra

Retenergie's ultimate objective was encapsulated in a phrase often used by my interlocutors: *chiudere il cerchio tra produzione e fornitura di energia* (lit. 'closing the loop between energy generation and supply'). As anthropologist Jeffrey Pratt would describe it, Retenergie aimed to create a "closed system" that would "keep the fruits of labour and creativity, the goods and resources it generates, within the bounds of those who produce them" (Pratt 2014b: 31). In Retenergie's vision, electricity would be generated by medium-sized photovoltaic, hydroelectric, and wind power plants located across Italy, all owned and financed by the cooperative's members. This concept aligns with the dichotomy Stephen Gudeman and Alberto Rivera (1990) presented between the household and the corporation. In this comparison, the household — or, in Retenergie's case, the cooperative — strives for self-sufficiency in

producing essential resources, while the corporation — akin to traditional energy providers — engages in commercial ventures to generate profits (Gudeman & Rivera 1990). However, economic and social systems cannot be entirely closed because “there is inevitable interaction with what lies outside it: the market” (Pratt 2014: 32). This held particularly true for Retenergie. At the time, energy regulations did not allow the same entity to generate and supply energy simultaneously. This remained an unresolved tension in practice (as I elaborate in Chapter 4). In response to this challenge, Retenergie embarked on a quest to find an energy provider that shared its principles and values, focusing on renewable energy over fossil fuels and the capacity for nationwide supply while maintaining a dialectical relationship with local communities. After months of searching, Retenergie connected with Trenta, a small energy supplier affiliated with the larger joint-stock company Dolomiti Energia, which was deeply integrated into the electricity cooperatives network of the Alps. A mutually beneficial agreement was forged between Trenta and Retenergie in 2011, ensuring that Retenergie’s members had access to 100% renewable energy. Trenta, equipped with its own hydroelectric plants, procured the electricity generated by Retenergie’s plants and distributed it to Retenergie’s members across the country. While not without flaws, as it required the involvement of a third party, the agreement with Trenta represented a significant stride in Retenergie’s pursuit to “close the loop” between energy generation and supply, sparking increased interest among the cooperative members. The situation, though, was set to take a sudden turn.

In 2012, the European Commission initiated a project called REScoop 20-20-20, intending to expedite citizen-led renewable energy initiatives, thereby aiding in achieving the EU 20-20-20 strategy to combat climate change, promote sustainable energy, and improve energy security. REScoop is an abbreviation for Renewable Energy Sources Cooperative. The project was rooted in the concept that energy cooperatives, defined as “a group of citizens that cooperate in the field of renewable energy, developing new production, selling renewable energy or providing services to new initiatives” (REScoop 2014: 4), represent a key means of achieving sustainable

energy goals and community involvement. REScoop 20-20-20 found a warm reception in Italy. Avanzi, a sustainability-focused consulting firm based in Milan, was the primary Italian partner for this European project. In late 2012, Avanzi organised a workshop to explore the country's challenges and opportunities for renewable energy cooperatives. The workshop brought together representatives of grassroots renewable energy initiatives that had emerged in the years prior, sparking discussions about what was necessary to foster the growth of Italy's renewable energy cooperative sector. Notably, the conversation underscored a point that resonated with Retenergie's mission: the absence of an energy cooperative dedicated to sales. Avanzi formed a collaborative working group with two entities previously introduced in this chapter: EnergoClub, an association known for its promotion of several PV purchase group initiatives, and WeForGreen, a Venetian cooperative that, like Retenergie, was engaged in electricity production. Over the following two years, REScoop 20-20-20 led to numerous initiatives, including visits to established European cooperatives and information exchanges. It was during one of these visits that Avanzi's Davide Zanoni and Retenergie's Gianluca Ruggieri, joined by sustainability consultant Matteo Zulianello, crossed paths with Gijsbert Huijink, a Dutch researcher and the founder of Som Energia, the most prominent Spanish renewable energy cooperative boasting around 10,000 members at the time. This encounter was pivotal because Som Energia was perceived as a noteworthy success story in the renewable energy cooperative sector. In 2014, Avanzi, EnergoClub, WeForGreen, and Retenergie jointly established ènostra, a consumer cooperative with a specific focus on procuring energy from production cooperatives and distributing it to its members. In 2016, Retenergie decided to recede from its contract with Trenta and started a partnership with ènostra: Retenergie would transfer the energy produced by its plants to ènostra and promote ènostra among its members who would buy electricity from it. ènostra marked a significant turning point in Retenergie's journey, bringing it one step closer to realising its goal of "closing the loop" between energy production and consumption, ultimately leading to its merger in 2018 (Figure 10). Simultaneously, this

development brought about an inevitable transformation in the cooperative's entrepreneurial approach.



**Figure 10.** Members of ènostra's and Retenergie 's boards of directors who were present at the 2018 meeting that formalised the merger of the two cooperatives.

*Credit: ènostra's Facebook page.*

Anthropologists note that cooperatives often prove malleable enough to adapt in shape and operation to the larger socio-cultural and institutional context (Vargas-Cetina 2005). Cooperatives swiftly adapted in terms of their size, focus, structure, legal standing, and membership as they engaged with national governments and bureaucracies, global markets, international media, solidarity movements, private foundations, multinational entities, and international organisations in response to evolving economic, political, social, and even religious landscapes. The fundamental idea of an organisation being entirely managed by its members, where each member



has equal involvement in investment, profits, and losses, at the core of the cooperative movement, is at stake with the reality of many organisations that call themselves cooperatives. Like many organisations operating in the social and solidarity economy, ènostra was born in the spirit of the “new generation cooperatives” that align more closely with contemporary corporate business models rather than the traditional cooperative model (Kotov 2001, cited in Vargas-Cetina 2015: 138) as the following vignette will elucidate.

In December 2014, delegates from the four founding organisations of ènostra received an invitation from Senator Gianni Girotto, the president of the Italian Senate’s Commission for Industry, Commerce, and Tourism — and a prominent figure within the Five Star Movement (M5S), a political force at the forefront of Italy’s renewable energy advocacy — to introduce ènostra during a press conference held at the Italian Senate. Among them was Sara Capuzzo, EnergoClub’s communication officer, who later became ènostra’s president. In her address to the Senate, Sara pointed out some of what, according to her, were ènostra’s defining attributes.

I would like to start with a point that has struck me in recent months since we began working on this project. I come from the non-profit world, and [...] I’ve been with EnergoClub since 2005, since its inception. The association’s mission is the transition from fossil energy to renewables. So, it’s obvious that you encounter people’s enthusiasm and support because it’s a commendable initiative. Plus, when you’re in the non-profit sector, there’s a sense of being connected to the initiative.

In this case, we’re in an enterprise. But the feedback we’ve received is the same, in the sense that all the people we’ve met and who have heard us talk about this project have been excited about its innovative nature and all the goals this project aims to achieve.

Distinguishing the non-profit association and the enterprise, Sara subtly alluded to the venturesome nature of ènostra. Scholars noted that the demarcation of a non-profit

sector separate from the state and the market is informed by an approach called ‘theories of institutional choice,’ rooted in a neoclassical economic perspective, which implies a hierarchical relationship between the three sectors (Laville 2010a). This is further indicated by the term ‘third sector’ or ‘non-profit sector,’ commonly associated with the realm of non-profit organisations in most countries. In Italy, despite its increased marketisation and the expansion of professional organisations within it, the non-profit sector is still seen by some as in competition with the market and as competing within it (Muehlebach 2012). As such, it has emerged instead as “an affective and ethical field” (Rose 2000: 1401, cited in Muehlebach 2012: 37) eminently based on voluntary work (see Chapter 3), whose “added value which is not graspable in monetary terms” as it can “satisfy a series of social needs with a sensibility and competence that the market does not have” (Tei 2002, cited in Muehlebach 2012: 68).

At the same time, the non-profit sector has served as the breeding ground for a distinct approach to business. Instead of primarily pursuing profit, this approach employs economic tools to achieve social objectives. Widely known as ‘social entrepreneurship,’ this concept has sparked intense debates and become the focal interest of a specific field in anthropology. This field of anthropological research explores the political, structural, and ideological transformations within both non-profit and for-profit sectors as researchers investigate their intersections, relationships, and collaborative endeavours (Mauksch 2017; Mauksch et al. 2017). Richard Pfeilstetter contends that contemporary anthropology’s tendency to discuss social entrepreneurship through the lens of the gift economy has led to its reification rather than “granting it the aura of a ‘new’ field of research or concept” (Pfeilstetter 2022: 96). Instead of uncritically using the concept of ‘social entrepreneurship,’ he suggests examining “the social in entrepreneurship” (ivi) to illuminate how businesses are increasingly integrating social service delivery into their everyday operations for profit. This integration demonstrates how corporations, non-profit organisations, and consumers mutually depend on each other. Several ethnographies have focused on how businesses, by framing their operations as ‘doing well by doing good,’

incorporate economies of care into economies of capture. This involves targeting vulnerable individuals and communities through commercial activities that are presented as legitimate and ethical (Cross & Street 2009; Rajak 2011; Cross 2019, 2020). In the case of *ènostra*, its departure from the conventional view of a non-profit organisation did not revolve around its financial objectives, which, as Sara noted in her address, were not profit-driven but aimed at achieving economic stability. Instead, it was rooted in its approach to finances and, more specifically, its approach to risk, as I will elaborate in the following sections.

Much like Retenergie, the fundamental concept behind *ènostra* was to leverage the revenue generated from electricity sales and member investments to control operational costs. This approach aimed to ensure that any surplus income could be reinvested in members through services or reduced tariffs. Sara articulated *ènostra*'s conviction that energy users could actively support renewable energy producers through solidarity and mutualism. She emphasised that *ènostra* sought to establish a connection between the 'aware consumer' (see Chapter 6) and the energy producer while engaging energy users in their *strategie d'impresa* ('corporate strategies'). While sharing the same ideals and mission with Retenergie, which involved actively advocating for a 'just transition' (It. *transizione giusta*) to citizen-led renewable energy, Sara's business-infused language suggested a more evident capitalist approach. As the founders acknowledge, Retenergie's project was born as a 'patient capital' investment, one where investors did not anticipate benefitting from substantial financial returns. Instead, they were comforted by the prudent asset management and the assurance that their capital was only deployed when it was considered secure. *ènostra*'s inception unfolded amid economic instability, a move many perceived as a "bold gamble." As Gianluca endorsed during one of the annual meetings, the cooperative commenced active operations in the market in 2015 in a hazardous environment. When the cooperative began billing its *soci* ('members'), these were only a few hundred when the threshold for economic stability was set at 5,000. "What we did was completely anti-economic," he said. "The budget was utterly negative, and it

didn't make any sense then, but we believed that by becoming operational and starting to bill on behalf of *ènostra*, our idea could be more persuasive and reach many more people." Gianluca, who had moved from Retenergie's to *ènostra*'s board of directors, remarked that meeting Som Energia encouraged them to embrace risk and uncertainty because "nothing new can be built without courage and a bit of madness." For *ènostra*, waiting until they had a solid number of members and a positive budget was not an option. A linguistic examination of common usage in modern British and American English revealed that, whether employed as a noun or a verb, the term 'risk' underscores actions, individuals, or central figures, along with unfavourable consequences such as the possible loss of valuable assets (Hamilton et al. 2007: 178, cited in Boholm 2015: 5). Risk is taken as an almost universal conceptual framework that allows the transformation of uncertainty from a limitless domain of unforeseen possibilities into a defined collection of potential results that can, in theory, be computed, evaluated, overseen, and regulated (Boholm 2015). Risk carries significant weight in economic decision-making, underpinned by calculating the likelihood of gains, losses, and profitability. Notably, it has become a defining feature of financial capitalism (LiPuma & Lee 2004). While I do not intend to propose an analysis of how risk unfolds as a set of practices in *ènostra*, pointing this out helps better frame how the cooperative navigated its transformation in the sense of an enterprise.

The contrast between *ènostra*'s approach and Retenergie's became evident during the period leading up to the merger. The idea of merging Retenergie and *ènostra* had been harboured by many of Retenergie's members in the meetings that ensued after the partnership agreement in 2016. Most no longer saw a reason to maintain the division between the two cooperatives, as they could now effectively function as a unified entity. The contrast that posed a challenge during the merger came to the forefront in Pino's account of the process, which appeared to mirror the innovative vision and narrative of the emerging enterprise. In one of my conversations with Pino, he emphasised, "To divide is very simple: when two individuals or two cooperatives no longer agree, one group goes in one direction, and another group goes in another.

But to merge two cooperatives, each governed by a board with differing perspectives on the future... that's tough!" He further explained that "ènostra was already there" and that Retenergie was to be integrated into it. ènostra retained its name with a slight adjustment to its logo and slogan. This decision was influenced not only by the fact that the name ènostra was more popular among the public but also by the more promising growth prospects identified by consultants from both cooperatives. Beyond the sentimental attachment to the name, the most formidable challenge lay in incorporating Retenergie's capital into ènostra and assuming the associated risks.

In Retenergie, different views existed about how things should be run. What was later dubbed the "soul" of Retenergie was characterised by a *modus operandi* marked by a low-risk approach and an unwavering capacity to wait (Mariano 2020: 41-52). This approach was bolstered by the trust and patience of its members. Another noteworthy distinction was that Retenergie was born within the solidarity economy, with most members being part of or familiar with GAS and similar groups. In contrast, the ènostra community was more diverse, comprising individuals, associations, and firms that had ties to the social and solidarity economy (Mariano 2020). A third distinction was geographical. Retenergie originated in Piedmont, far from the bustling 'big cities.' Conversely, ènostra was a project conceived and deeply rooted in Milan, primarily through collaboration with the local broadcaster Radio Popolare ('People's Radio'), which played a significant role in promoting and fostering the cooperative's growth. Some, like Gianluca, regarded the geographical distinction as a mere coincidence. "There might be some cultural factors, but I wouldn't go that far. Perhaps that's your area," Gianluca remarked with a smirk, alluding to my position as an anthropologist when I probed further on this distinction. Others, however, saw it as a fundamental aspect that ran through the very essence of the organisation. This distinction led to some friction during the merger, ultimately shedding light on two distinct, almost opposing, commercial attitudes. I will provide a more vivid illustration of this with the following anecdote.

Sitting in our respective study rooms, Pino and I engaged in a video conversation for over half an hour, discussing *ènostra*, its history, and Pino's pivotal role, who strongly nudged the merger. He was on the verge of delving into the merger with Retenergie when he paused and let out a nervous sigh. "It was not an easy move due to some divisions," he confided. Intrigued, I asked, "What kind of divisions?"

The division could be summarised as follows: Should we take a leap of faith and embark on a project even with limited funds and resources? Or, as they say here in a Sabaudian way, should we proceed cautiously, one step at a time, minimising the risk of messing it up?

Pino's use of "Sabaudian way" particularly piqued my interest. The adjective 'Sabaudian' has its roots in the House of Savoy, the royal dynasty that reigned in Italy from the establishment of the Kingdom of Italy in 1861 until the establishment of the Republic in 1946, with their royal residences in the then-capital Turin. It is still employed as an adjective to describe people from Turin — and Piedmont more in general — often playfully recognised and teased for their marked traits of austerity and discretion. Adopting a Sabaudian way, according to Pino, meant proceeding with utmost care and avoiding any risks, an approach that characterised Retenergie. Echoing the view of others, Pino believed the friction stemmed from two divergent approaches: the more "adventurous stance of *ènostra*'s board of directors" and "the more cautious approach of Retenergie's." These "two different souls" had to be integrated, eventually tilting in favour of "the more adventurous."

I firmly believed that this was the right course of action. I thought it was the right decision to bet on the future and move on, even if we didn't have what it takes just yet. Considering all the risks it carried, 'cause you gotta hire people who you don't know if you're gonna be able to pay; you gotta invest in projects you don't know if you're gonna find the money to realise. If you do this kind of stuff, you're... well, maybe not an adventurer, but surely someone who bets on the future.

Some of Retenergie's members were said to have been deeply sceptical about the merger. While I did not have the opportunity to hear this scepticism directly from them, it is easy to imagine why. Retenergie had injected a relatively substantial sum of financially secure assets into the project, while ènostra carried its own debts. Over two years of operation, ènostra had been selling electricity without generating sufficient revenue for economic sustainability. Through a personal analogy, Pino elucidated ènostra's perspective, which harmonised with his. He articulated that, were he to embark on building a family, he would not defer until he had amassed sufficient funds to purchase a house; instead, he would opt for a mortgage. "People who shy away from mortgages," he emphasised, "often do so out of fear of the risk of being unable to repay it." He ardently believed in the value of taking out loans and mortgages, mainly, "That's the only way when you're young and have the resources to do the things you wanna do. You gotta bet; you gotta be entrepreneurial." He underscored the importance of taking calculated risks and embodying an entrepreneurial spirit. In his view, "entrepreneurial" was the precise term to encapsulate the distinction between Milan and Turin. Pino firmly contended that "betting on the future" and embracing an entrepreneurial mindset yielded long-term benefits. In his view, this belief was validated by the fact that, in 2022, ènostra successfully attained its goal of 10,000 members and presented a positive balance sheet during the annual meeting, providing concrete evidence of his perspective.

## Conclusion

During the pivotal meeting convened for Retenergie and ènostra members to cast their votes on the merger, Davide Zanoni, who then served as the President of ènostra, articulated the vision for the forthcoming cooperative. "Today, let us not talk about numbers, for once, at least in a meeting, let us not discuss numbers," he hinted, acknowledging the typical tension-ridden moments in general meetings where economic management in cooperatives becomes the focus. "Normally, we only meet

once a year with the budget, and it is always a difficult and critical moment, full of tears and strife,” he added with exaggeration, “but this time, we can talk about future strategies and even utopian ideals.” Davide evoked utopian ideals and future strategies to forge a community enterprise embodied by its members, described as “critical consumers committed to consuming energy efficiently and ethically, and investing in its production.” These utopian ideals encompassed the goal of establishing a community of “energy prosumers”: individuals who could produce and consume energy simultaneously, which was in line with Retenergie’s dream to close the loop of an alternative electricity economy. The strategies to attain this objective revolved around the belief that *ènostra* would reach as many individuals as possible through ‘movimentality’ (Rakopoulos 2015a).

In his ethnographic exploration of a solidarity economy organisation in austerity Greece, Theodoros Rakopoulos elucidates how his interlocutors conceive and cultivate movimentality (Rakopoulos 2015a). Movimentality entails sustained engagement with individuals external to the movement to shift perspectives and expand the movement’s reach. Davide underscored this approach: “After the merger, we should continue to grow the community. If you think about it, how many will we become? 3,000-3,500 by May. If each of you brings one person, we will become 7,000”; thereby confirming *ènostra*’s strategy to harness its members’ movimentality. *ènostra*’s growth was incremental, in the sense that it was envisioned as the “accumulation of tactical individual moves by a social group” (Rakopoulos 2015a: 173) aimed to bring about a broader societal and environmental transformation by setting up and growing a “community enterprise.” Nonetheless, the scale of this transformation was not linear; it emerged constantly in tension with the changing cultural, political, and economic context in which the project unfolded. In this sense, how the cooperative envisioned change is best understood in terms of “overlapping ‘scales’ (historical, environmental, political, economic, etc.) of meaning and action that people deploy to engage with their present, and assess the consequences of such engagements” (Jiménez 2005: 158). The transition from a grassroots initiative to a



'community' enterprise was underpinned by imageries of social transformation constantly shaped by cultural-economic views, where a patient, low-risk attitude made way for a venturesome approach to entrepreneurship. At the same time, understanding *ènostra's* endeavour requires attention to a "pragmatics of scale," intended as a critical perspective that distances itself from established scalar boundaries and focuses instead "on the social circumstances, dynamics, and consequences of scale-making as social practice and project" (Carr & Lampert 2016: 10), where aspiring to 'the social good' is always contingent on the condition of navigating the market.

## Chapter 3:

# Cooperative Selves

Early on a scorching June morning, I arrived at the Avanzi Coworking space, where ènostra headquarters are based. Located in Via Ampère, a street that has undergone significant ‘green’ architectural and urban renewal in recent years, Avanzi Coworking is one of the most sought-after locations for eco-minded businesses and nomadic workers seeking a workspace. Situated within a renovated historic factory adorned with a wisteria pergola, Avanzi was also where some ènostra staff spent their working days and the venue for the cooperative’s annual meetings. I traversed the passage connecting the main gate from the street to the building’s entrance, noticing fewer bicycles than usual lined up along the way (Figure 11). It was the first Monday of June, and following the extended break that accompanied the Day of the Republic on June 2nd, it seemed that many ènostra staff had opted to work from home. Suddenly, Salvatore appeared. As one of the switchboard operators, Salvatore shared a designated room with his colleagues, Elena and Davide, where they could make phone calls without disrupting others. Seeing that the office was quiet, I inquired if I could join him in the room. As we started chatting about the recent holiday break, the telephone rang. “Excuse me, he said politely, “but it’s 9 o’clock, and since it’s Monday, they start calling right away.” Salvatore immediately dropped our conversation and turned to the person on the other end of the phone, an elderly lady who had called to ask for information about ènostra. He meticulously answered the lady’s questions and proudly recounted ènostra’s activities. A long-standing cooperative member, Salvatore was hired as a switchboard operator about a year after I commenced fieldwork in ènostra. Having worked his entire career as a technician for different IT companies, he struggled to navigate a rapidly transforming job market, for which he felt “too old,” leading to several years of unemployment. His new job at ènostra not only took him

out of unemployment but also allowed him to merge his activism with his paid work. Salvatore embodied, perhaps most aptly, what I refer to in this chapter as the ‘cooperative self.’



**Figure 11.** Walkway connecting the main gate to the entrance of the Avanzi co-working space.  
*Credit: Author.*

By ‘cooperative selves,’ I refer to specific individuals at the core of ènostra organisational life. I draw on Gideon Kunda’s (2006) notion of the ‘organisational self,’ which he used to analyse how the employees of a high-tech engineering firm in the United States during the 1980s managed their relationships with their corporate employers. Kunda shows that many engineers in his study sought to “manage the cognitive and affective responses” (Kunda 2006: 163) that their corporate roles required them. They did so by constructing an ‘organisational self’ capable of delineating distinct boundaries between their professional and private lives,

preserving emotional detachment from the workplace, and strategically either embracing or distancing themselves from the pre-defined organisational roles assigned to them. Differently from Kunda's 'organisational selves,' for the 'cooperative selves' I encountered in *ènostra*, the boundaries between professional and private lives were often moot. Moreover, *ènostra*'s 'cooperative selves' transcended formal distinctions between formal and informal labour. As Patrick O'Hare (2020) observed in his study of a Uruguayan waste pickers cooperative, rigid categorisations of roles, individuals, and activities as either formal or informal can obscure our understanding of how labour is organised in cooperative settings. Following O'Hare, I move beyond this dichotomy to explore how my interlocutors engaged with and reflected on both the paid work and voluntary activities they undertook for *ènostra*.

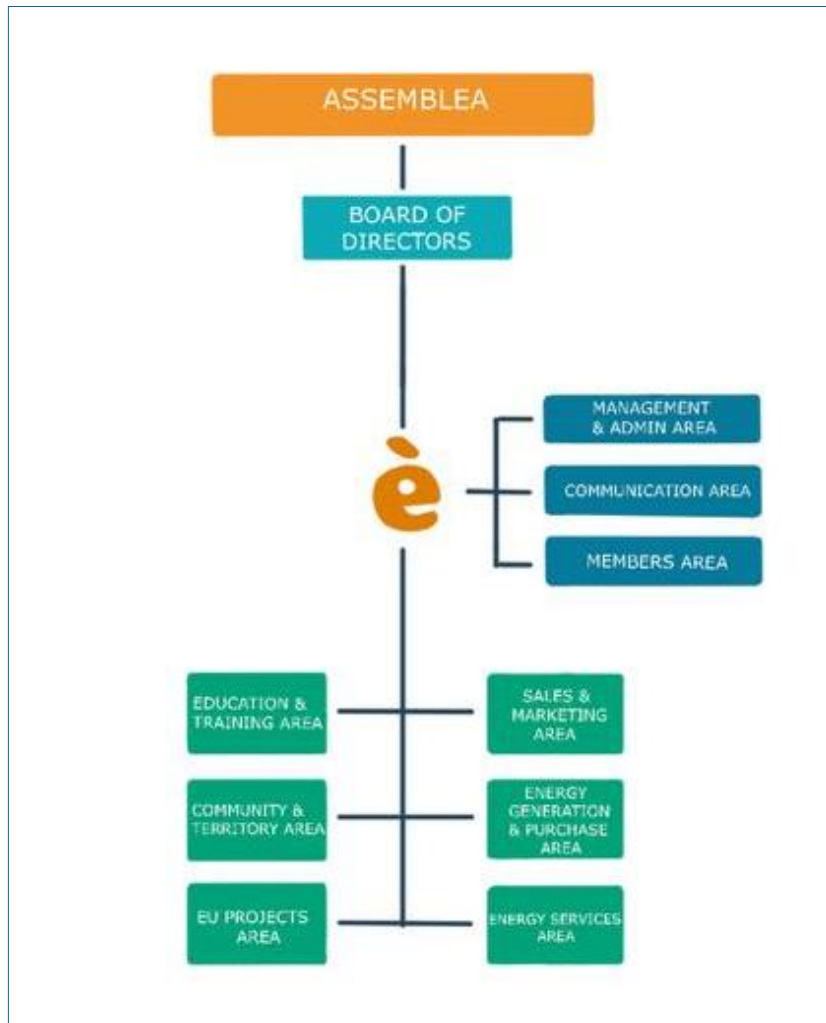
In Chapter 2, I discussed how *ènostra*'s founders envisioned the cooperative as a "community enterprise," a collective aspiration to pursue the social and environmental good while "staying in business." I argued that this aspiration involved constantly balancing social and environmental goals with economic concerns about maintaining the enterprise financially viable, highlighting the different perspectives my interlocutors held on how to navigate an enterprise in the non-profit sector. In this chapter, I build on these insights to explore how 'cooperative selves' engage with the *ènostra* to articulate personal pursuits of the good within the non-profit sector. I do so by focusing on two primary modes of engagement with the cooperative: work and voluntarism. These modes of engagement were shaped by multiple responsibilities: towards broader society and the environment, the cooperative and its members, and themselves. In particular, I use work and voluntarism as a lens to look at how responsibility is "recognised and invoked in the world, what relations it draws upon" (Demian et al. 2023: 4), and how it comes to define the 'self' in the cooperative setting. In the following section, I describe the formal arrangements that define roles in the cooperative's organisational setting. Then, I provide an ethnographic analysis of how multiple responsibilities unfold as my interlocutors engage with voluntarism and work in *ènostra*.

## Being a cooperative: Inside ènostra's community of practice

In this section, I will introduce the organisational structure of ènostra, tracing the contours of what I term as ènostra's 'community of practice.' The concept of 'community of practice,' cultivated within anthropological and social science inquiries into learning and knowledge, emphasises the dynamic processes that shape communities through informal interactions among individuals who may not necessarily be affiliated with the same social group (Lave & Wenger 1991; Wenger 1998; Wenger & Trayner 2015). Communities of practice have become both a conceptual tool and a strategy to convey "codified and institutionalised forms of informality within organisations" (Serio & Caramazza 2011: 21). In corporate environments, professional associations, educational institutions, and governmental as well as non-profit agencies, skill and knowledge sharing beyond the geographical or functional boundaries of an organisation are increasingly reshaping how professionals understand being part of a community. I use this term descriptively, drawing on my interlocutors' empirical understanding of it to describe individuals (both workers and non-workers) actively engaged in the cooperative's activities. To help the reader better understand how work was organised within ènostra and where the community of practice stood in this process, I will provide a detailed description of ènostra's organisational structure in the following paragraph.

As a cooperative, the bedrock of ènostra is its *base sociale* ('membership base'). Most of these members are *soci utenti* ('members-users'): individuals, businesses and associations who joined the cooperative primarily to buy its goods and services (for further details, see Chapter 4). All members can participate in the *assemblea*, a term which indicates both the entity ('assembly') that deliberates on financial, management, governance and statutory matters and the event ('general meeting') in which such decisions are made (see Figure 12 for a visual representation of ènostra's

organisational structure). The *assemblea* elects a Board of Directors (BoD), the highest authority in the cooperative's management. The BoD is exclusively responsible for overseeing the cooperative's operations, executing decisions made by the general assembly, intervening in specific matters as needed, and appointing its president and vice president. Additionally, it can establish a supervisory board tasked with ensuring compliance with legal frameworks and upholding sound governance principles. BoD members put different knowledge and skills at the cooperative's service. As such, they are considered cooperative representatives and may also receive monetary compensation (agreed upon by the *assemblea*). In addition to the BoD, *ènostra* maintains a paid staff responsible for various functions such as marketing, administration, financial management, partnership management, technical services, and community engagement.



**Figure 12.** Illustration of ènostra’s organisational structure.

*Credit:* Author.

The Avanzi Coworking space in Milan, which I introduced in the previous section, was frequented by only a handful of people residing in Lombardy. Most of ènostra’s employees embraced *smart working*, a term used in Italian to indicate working remotely, as their preferred work modality. This approach garnered favourable sentiments, especially from individuals in other parts of Italy and even abroad. For instance, Chiara, a young employee who recently moved to Barcelona, perceived *smart working* as an exciting and adaptable means to harmonise her professional and personal life. Workers who lived in Milan and its suburban areas enjoyed the flexibility of in-person and online modes as a good way to juggle family and other non-work

responsibilities with their jobs. Videoconference platforms for weekly general staff meetings, briefs and debriefs internal to each different team, and the occasional update were already part of ènostra's work practices before the pandemic, which was minimally disruptive in these terms. At the outset of my fieldwork in early 2021, the cooperative employed approximately 20 staff members, nearly doubling by the end of fieldwork. As a pivotal element in the "growing up" process (as described in the previous chapter), ènostra recognised the necessity of expanding the number of staff and diversifying the professional backgrounds of its staff. This perception was prompted by the significant rise in members-users and the concurrent expansion of the cooperative's activities. I frequently heard remarks emphasising how ènostra was now "truly operating as a company," underscoring the notable transformations that ènostra underwent in terms of workload and workforce management. These changes marked a shift from an "amateur" approach to management that characterised the cooperative's early years to a more corporate mindset. The challenge of competing in the intricate and swiftly evolving electricity market necessitated the expansion of various departments such as accounting, administration, customer service, and customer support. This expansion led ènostra to enlist professionals with expertise in finance, legal compliance, marketing, and energy services. Furthermore, a new team was established in response to the new regulatory framework on Renewable Energy Communities (which I discuss in detail in Chapter 6).

ènostra's community of practice was comprised of not only paid employees but also several members-users who were actively involved in the cooperative. Although unpaid, these individuals were integral to ènostra's goal of expanding its membership base and raising public awareness about renewable energy and were known within the cooperative as *soci e socie attivi* (lit. 'active members,' m. f.). In 2019, concurrently with the election of a new BoD, ènostra received a proposal from some of its members-users to develop a plan for participation. This plan aimed to enhance communication between the board and the membership base by amplifying members' involvement in the cooperative through co-planning, co-designing, and co-decision-making while



strengthening member relations. Consequently, a questionnaire was distributed among approximately 7,000 members to gauge their interest in a so-called ‘participation pathway,’ ultimately establishing active members as a new entity within the cooperative. This would involve coordinating their activities at the local level through *gruppi territoriali* (‘local groups’), composed of active members residing in the same region. While forms of local aggregation, known as *nodi locali* (‘local nodes’), already existed in Retenergie (Mariano 2020), these were only formalised in ènostra. Having described the organisational structure of ènostra and identified the ‘community of practice’ within it, I will focus on the active members in the next section. I will explore how they navigate their cooperative selves, highlighting how notions of responsibility and accountability unfold in their voluntary activities and through their relations with the cooperative.

## Change lies in the difference between a “member” and a “customer”

Cooperatives are known for being constituted by their members. Even in cooperatives centred around collective purchasing of goods and services, known as consumer cooperatives, individuals who benefit from these activities are referred to as ‘members’ rather than ‘consumers’ or ‘clients.’ This distinction is not merely a linguistic nuance, and it held particular significance in ènostra, where the use of the term *cliente* (‘customer’) was not taken lightly. On one occasion, when I inadvertently used it to refer to ènostra members, I was playfully reminded, “You’d better be careful when you’re around Sara!” Perhaps more than anyone else, the President of ènostra emphasised the distinction between *cliente* and *socio/socia* (‘member,’ m.f.). While both terms might encompass purchasing goods or services from an organisation, only the latter conveys the ideals of democracy, autonomy, community, participation, and collective ownership commonly associated with cooperativism. For some of my interlocutors, these ideals were not only abstract values but also the lifeblood of the ènostra community. Nicolas, for instance, once said that he “fell in love with ènostra” when he first encountered it during a promotional event at his solidarity-based

purchase group. This was not only because the idea of being part of a cooperative resonated with his views of social change and provided a sense of belonging. It was also because he could experience these values firsthand during general meetings where everyone had a voice and a shared responsibility to act. Other interlocutors echoed these sentiments, as Mercedes once conveyed them:

I met the people who came there to present: Gianluca Ruggieri was there, and there were other cooperative members, volunteers, and so on. And, when you get to know people, you can tell whether you can trust them, right? So, having met them in person, I immediately got the idea of joining because I saw that these people believed in it. There was a genuine desire to act, to make a difference in the future and the environment. So, I joined [...]. You can get to know other people who have joined the cooperative and those on the Board of Directors, so the president at this time and the various Councillors, and, listening to them speak, sharing their experiences [...]. Those from Retenergie had started even before *ènostra*, with an association — so they had come together with people they knew — they had begun to build the first plants. From the experiences and stories of these people, I understood that I could trust them. So, it was a matter of getting to know the other people and the other members, and as we got to know each other, this trust was born, and... it's a beautiful thing. As Nicolas said earlier, at the meetings, getting to know the person sitting next to you and talking to them and discovering that they think like you, and we're all happy and in agreement with this project, is, in my opinion, truly exciting.

Living the cooperative can be seen as a prefigurative practice. Prefigurative politics relates to how activists embody and put the dynamics and practices they aim to promote for the broader society into action. This encompasses participatory democracy, horizontal organisation, inclusivity, and direct action (Graeber 2009; Maeckelbergh 2011; Fians 2023). In this sense, some *ènostra* members felt they were practising “another world” by participating in the life of the cooperative. For my

interlocutors, participating in *ènostra* enabled “new, non-alienating modes of interaction” (Graeber 2009: 235) that prefigured what a genuinely democratic society could look like. Claudio, a resident of a small town in the northeastern Italian region of Veneto, shared his personal transformation journey, which involved shifting from a somewhat individualistic mindset to embracing the desire to “make a meaningful contribution,” as he put it. Like numerous other members, his initial engagement in activities such as solidarity-based purchasing groups was a stepping stone toward his active involvement with *ènostra*, motivating him to participate actively in the cooperative’s initiatives. For instance, Salvatore constantly seized opportunities to represent the cooperative at solidarity economy fairs whenever possible, and his enthusiasm for the general meetings was especially noteworthy. Often, *ènostra* members also took part in direct actions, such as the Fridays for Future global strikes<sup>1</sup>, during which they would make their affiliation with the cooperative explicit by wearing t-shirts, carrying banners or distributing flyers that represented the cooperative (as shown in Figure 13).

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<sup>1</sup> Fridays for Future started as an international movement of school students who skip Friday classes to participate in demonstrations to demand climate action from political leaders, spearheaded by Swedish climate activist Greta Thunberg. The movement increasingly involved adult activists and organisations, who participated in the strikes with the students.



**Figure 13.** ènostra members participating in a national Fridays for Future strike in 2019.

*Credit: ènostra Facebook page.*

ènostra members' activism was woven into the broader national landscape of energy and environmental advocacy, which involved active participation in movements and initiatives closely aligned with the cooperative's mission. Connections between ènostra and other energy and ecological movements took diverse forms, ranging from members' engagement with local groups to joint public demonstrations and collaborative campaigns. Giulio was one of the members whose dedication to energy activism I found particularly remarkable during my fieldwork. A surveyor from Tuscany, he began to participate in various committees focused on opposing the establishment of an asbestos landfill in the province of Florence. This experience led him to engage with multiple local branches of Zero Waste, the global movement advocating for waste reduction that has gained significant traction in Italy. Other ènostra members — like Vincenzo, whom the reader will encounter in Chapter 4 — were also actively involved in this movement to raise awareness about waste reduction

through initiatives such as recycling programmes, packaging waste reduction workshops and support to local businesses and governments aiming at fostering a circular economy. Giulio was also a member of *Statuto in Transizione* ('Statuto in Transition'), a local group based in the Statuto neighbourhood of Florence, which was part of the broader Transition Towns movement. Often considered one of the most significant social movements of the early 21st century (Taylor 2012), Transition Towns are community-driven initiatives that seek to address the environmental and economic effects of ramping energy demand and climate change at the local level. Since the first Transition Town initiative was established in Totnes, England, in 2006, numerous initiatives have emerged in nearly 90 countries, encompassing over 1,000 groups and engaging more than 200,000 people (Transition Network 2024a). Italy currently hosts 13 initiatives, mainly in Tuscany and Emilia-Romagna, primarily focused on workshops for sharing, repairing, and reusing, training in permaculture and other alternative agricultural practices, farmers' markets, and awareness-raising events like festivals and fairs (Transition Network 2024b). A few days after our interview, Giulio was invited by *Val di Sieve in Transizione*, another Transition Town group based in nearby Pontassieve, to give a talk at their farmers' market. He was set to address the contrasting visions of community-based initiatives versus the top-down approach of industrial energy projects, particularly given local activists' growing discontent regarding the proposed installation of nine large wind turbines in the neighbouring Mugello region (Chapter 5 addresses this controversy in greater detail, examining the varied moral scales at which my interlocutors evaluated energy conflicts). Recently, as a member of *Statuto in Transizione* and *ènostra*, Giulio took part in a film discussion following the screening of the documentary *Anthropocene: The Human Epoch* organised by local activists of Extinction Rebellion, the global environmental movement that aims to compel governments and institutions to take urgent action against climate change. After watching the documentary, which explores the profound impact of human activity on the Earth's geology and ecosystems, Giulio was asked to share his reflections on the need for an energy transition with the students. These were only a few of the initiatives that members like

Giulio engaged in, sometimes including *ènostra* workers and members of the board of directors, to illustrate the cooperative's commitment to promoting a fair energy transition and to encourage collaboration between *ènostra* and the various energy and environmental movements operating nationally. These collaborations often led to commercial partnerships with the cooperative. For example, Kontiki, a community space established in 2023 in Turin by members of *Giustizia Climatica Ora* (lit. 'Climate Justice Now'), an environmental association linked to Fridays for Future and the first headquarters of the movement in Italy, chose *ènostra* as its energy supplier (*ènostra* 2024a).

Through their participation in *ènostra*, the active members I encountered in *ènostra* embraced their responsibility for effecting change. This sense of social and environmental responsibility underscored their commitment to realising a more just and democratic society by practising the cooperative and its values. Often regarded as the quintessential democratic value, participation is a central notion in cooperativism and other movements committed to producing societal change. As Marianne Maeckelbergh (2009) argues, in many cases, the prevailing idea of participation in social movements focuses eminently on decision-making and the methods by which decisions are reached. Discussing the practices of alter-globalisation activists and forums she followed in different regions of the world, Maeckelbergh contends that activists often intend participation as being present at the meetings. Such a definition entails a conflation of participation and presence that reduces the former to the mere attendance of meetings where decisions are made. Similarly, in *ènostra*, for many members, participation in the cooperative translates as attending the annual general meeting and the occasional extra meetings to cast their vote on the topics on the agenda. Although they identified with cooperative values, their engagement was limited to the presence in the meetings and was more readily associated with a notion of participation centred on economic exchanges (see Chapter 4 for a deeper discussion on this). For the active members I met, instead, participation entailed a sense of

belonging where at stake are values of mutual engagement, dedication and responsibility (Weiner & Forno).

As anticipated in the previous section, in 2019, ènostra initiated a participatory pathway to increase the active involvement of non-workers in the cooperative. That year, ènostra organised a workshop in Turin to gather ideas and suggestions from some members about organising this process. Facilitated by Gianluca and Chiara and supported by two applied social researchers from Codici Ricerche with expertise in community engagement and facilitation, this workshop divided participants into groups to deliberate on various topics. While I did not personally attend the workshop (hosted before I commenced fieldwork), Gianluca was so kind as to share the resulting report. It stated that:

The pathway is grounded in [our] awareness: Today, we know, we are aware that we must act. Change, for us, lies in the difference between a member and a customer. In this sense, the cooperative is a self-defining entity since it implies participation and allows one to share a horizon [...] with those who become part of it.

The differentiation between “being a customer” and “being a member” summarised the conceptualisation of a cooperative self whose subjectivity is shaped not just by a sense of responsibility for acting towards social and environmental causes but also to mutually engage with fellow members and commit to the cooperative and its project. This was evidenced, for example, by a series of activities that active members organised independently and, with the establishment of the participatory pathway, under the guidance of some ènostra workers.

Before the participatory pathway, some ènostra active members used to organise initiatives in their parishes, cultural associations, and other circles to advertise the cooperative and recruit new members. One such initiative was the so-called *cenetta bolletta* (lit. ‘energy bill dinner’), where an ènostra member would organise a dinner at

home or another venue to get more people to sign a supply contract with the cooperative. During an online gathering of ‘active members,’ Giulio vividly illustrated the process of a *cenetta bolletta*. “We would explain to friends what it meant... what it entailed to become members of a cooperative and detach themselves from a company logic... any company, in the end, has profit as its logic.” Giulio explained that *ènostra* active members would then guide interested guests through the supplier switch process on the *ènostra* website. However, throughout the pandemic, with the impossibility of organising in-person gatherings, online presentations hosted on videoconference platforms replaced in-person initiatives. I attended most of the events organised by the Milan active members’ local group, where they invited members of local GASs, *banche del tempo* (‘time banks’), and other alter-economy groups to persuade them to buy *ènostra*’s electricity.<sup>2</sup> They called these events *serate informative online* (lit. ‘online informative nights’) to stress their intention to provide informative sessions rather than promotional events (see Figure 14 for an example of how *serate informative* were advertised). Mindful of conveying to the attendees that they were not *ènostra* representatives seeking to promote the cooperative for personal economic gain, Mercedes and Nicolas would introduce themselves as *volontari* (‘volunteers’). “We don’t earn anything [from this presentation]; we don’t make money by giving this presentation; we should make this quite clear. We do it as volunteers,” Nicolas emphasised. The use of the term *volontari* signalled an engagement with labour that extended beyond mere economic drives.

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<sup>2</sup> Time banks are initiatives where time, rather than money, serves as a currency. People engage in giving and receiving assistance, earning time credits in return.





**Figure 14.** Digital flyer advertising a serata informativa. April 2021.

*Credit:* ènostra Facebook page.

Like other 'active members,' Mercedes and Nicolas dedicated much of their time to mutual associations, time banks, and solidarity-based purchase groups that form the thick network of social and solidarity economies in Northern Italy (Bertell et al. 2013; Lekakis & Forno 2019). Like Italy, social and solidarity economy initiatives have proliferated across European countries, such as Portugal, Ireland, Greece, and Spain, and have been profoundly impacted by the economic and financial tumult since 2007. These initiatives gained traction in the wake of the crisis and the subsequent austerity measures implemented by their respective governments in response to the economic

upheaval. In broad terms, social and solidarity initiatives often arise concomitantly with the gradual withdrawal of the State in welfare provision (Milligan & Conradson 2006; Muehlebach 2012; 2016; 2017). Such initiatives seek to weave networks of resources, ranging from knowledge and services to goods and labour, primarily focusing on non-profit purposes (Weiner & Forno 2020). In this context, solidarity frequently arises concomitantly with adjacent and complementary concepts such as mutuality, reciprocity, and cooperation. Anthropologists have explored the local applications and interpretations of solidarity. For instance, Theodoros Rakopoulos (2014) shows how, in austerity Greece, affiliates of an anti-middleman organisation conceptualise solidarity as a claim to explore forms of economic life alternative to the dominant economic utilitarianism. In Italy, Andrea Muehlebach characterises *solidarietà* as an “emotionally resonant category” available to large segments of the Italian Left to “reimagine the neoliberal reordering of the social fabric” (Muehlebach 2012: 8). According to the author, many Italians are urged to acquire the ability to express and act upon emotional dispositions such as compassion and solidarity and to nurture these qualities through public engagement.

In the context of post-welfare Italy, Muehlebach (2012) argues that *volontariato* (‘voluntarism’) is a function of solidarity, intended as a type of radical giving that enables a form of opposition to market-driven dynamics. In this sense, *il volontario* (‘the volunteer’) embodies “a new mode of social and moral subjectivity, new assumptions about citizens’ rights and duties, and new conceptualisations of human agency, affect, and will” (Muehlebach 2012: 17). For Muehlebach, this was spurred by the non-profit sector’s replacement of the State in the provision of social services. Consequently, ‘the volunteer’ has surfaced as a flexible subject that straddles between charitable work and unpaid labour in many sectors of post-welfare societies’ economies. In *ènostra*, those among my interlocutors who self-identified as active members saw volunteering for *ènostra* as “an opportunity for practical engagement in the world” (Muehlebach 2012: 14), a way to take responsibility for environmental and

social issues for which they did not seek any monetary return. As Nicolas described active members during a *serata informativa*,

What unites us is [...] our shared sensitivity to environmental and ethical issues in general. What unites us is our commitment to making the world a better place. In particular, we are fond of this cooperative, *ènostra*, and we want to promote it [...]. We don't earn anything from it. I believe that our return will be in terms of tonnes of CO<sub>2</sub> saved. In other words, every one of you that we manage to convince to switch to *ènostra* will be a source of satisfaction because it means a few tonnes less of CO<sub>2</sub> in the environment. So, I think that's how we pay ourselves off and get a return.

Underpinning Nicolas's and many of his fellow active members' deeds was a conception of value not as monetary compensation but as pursuing "ideas about what is ultimately important in life" (Graeber 2013: 224). As activists and members of a renewable energy cooperative, they shared environmental and democratic values and a sense of responsibility for producing ecological and societal change with other active citizens (Crick 2010; Jaitli 2014; Kenny et al. 2015). From this standpoint, my interlocutors resembled the Lancashire anti-fracking activists described by Sarah O'Brien (2023a; 2023b) in that their sense of responsibility was tied to taking individual and collective action to bring about such change. They did not limit themselves to purchasing electricity from *ènostra*, as though they were simple 'customers'. Instead, by operating as 'active members,' they attended to their responsibility to instil change in others.

In the following sections, I will focus on *ènostra* workers and how they navigate and strive to harmonise their responsibilities. For the active members described in this section, responsibility emerged as a personal commitment, which manifested through voluntarism, to the cooperative's social and environmental goals. In the case of the employees, multiple responsibilities emerge at the intersection of work and voluntarism, which surface as practices to balance different ethical commitments.

## We are not a charity!

In *ènostra*, voluntarism extends beyond the participation of the active members; it also appears in how the cooperative's workers engage with their work. This section explores how voluntarism articulates the sense of responsibility of *ènostra* workers, highlighting the complexities and contradictions that arise when voluntarism is associated with paid employment. Some of the *ènostra* workers also engaged in forms of voluntarism, which sometimes overlapped with those of the active members described in the previous section. A singular example was Sara Gollessi, an energetic woman from Genoa, Liguria, who joined *ènostra* in 2018 as a collaborator specialising in EU-funded projects.<sup>3</sup> Over time, Sara seamlessly integrated herself into the Renewable Energy Community (REC) team. In a noteworthy achievement in 2022, she secured a significant milestone by being elected a board member for the first time. Sara's fervour and commitment to *ènostra* were palpable in her recent involvement with the local group of active members in Genoa. As a volunteer, Sara's endeavours were slated to occur outside official working hours, primarily in the evenings on weekdays or over weekends. She identified herself as an active member and collaborated closely with her local group from Liguria. Sara played a pivotal role in coordinating online presentations of *ènostra* for GAS in the group, mirroring the successful initiative the Milan group mentioned earlier. Simultaneously, she actively pursued establishing connections with social enterprises, exploring the possibility of creating "an *ènostra* informational hub" within these enterprises' facilities. Moreover, the Genoa local group maintained consistent communication through weekly online meetings and a dedicated chat group on the mobile app Telegram. In these forums, they organised brief gatherings, exchanged news, and shared ideas regarding potential associations or organisations to connect with, contributing to the collaborative and dynamic spirit of the group. Although Sara was the sole worker

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<sup>3</sup> *ènostra* participates in a number of EU projects, in partnership with other European cooperatives and institutes, focussed on the uptake of renewable energy. Most of these projects concern the recent regulations of Renewable Energy Communities (RECs).

directly with the active members, her tireless commitment and dedication beyond regular working hours were not unique among other *ènostra* staff members.

Christian, an engineer from Gioia Tauro in the southern region of Calabria, had recently joined *ènostra* when I began my fieldwork, becoming part of the REC team. He was initially surprised at the organisation's ethos. Attending his first annual general meeting, Christian, determined to be present in person, travelled to Milan the day before the event, following the practice of employees residing far from the city. Upon arriving in Milan, Christian and his colleague Tommaso, with whom he shared a B&B, headed to their accommodation. Despite the late hour, around 11 p.m., Tommaso, a founding member responsible for organising the assembly, asked Christian if he would like to contribute something for the next day's presentation. Without hesitation, Christian quickly assembled a few slides. Just an hour later, he called it a night while Tommaso continued working until 5 a.m. to finalise the preparations. Christian emphasised, "And at 8 a.m., he was fresh as a daisy and ready to start the assemblea. I mean, who does that? He's one of those people who believes so much in *ènostra*." This episode exemplified the extraordinary dedication and belief in the organisation that some members, like Tommaso, exhibited and were celebrated for. Several other staff members demonstrated an unwavering dedication to *ènostra* throughout my fieldwork and dedicated their free time to the cooperative beyond their regular working hours. An illustrative example was Gianluca Ruggieri, who hosted a weekly radio program on climate change and energy transition, proudly sponsored by *ènostra*. Similarly, Sara Capuzzo was frequently invited to participate in both online and in-person events, where she shared her expertise on Renewable Energy Communities.<sup>4</sup> This zeal can be attributed, to a certain extent, to the personal moral projects and ambitions of *ènostra*'s founders, which extended beyond conventional corporate promotional rhetoric (High 2019) and were animated by visions of an energy

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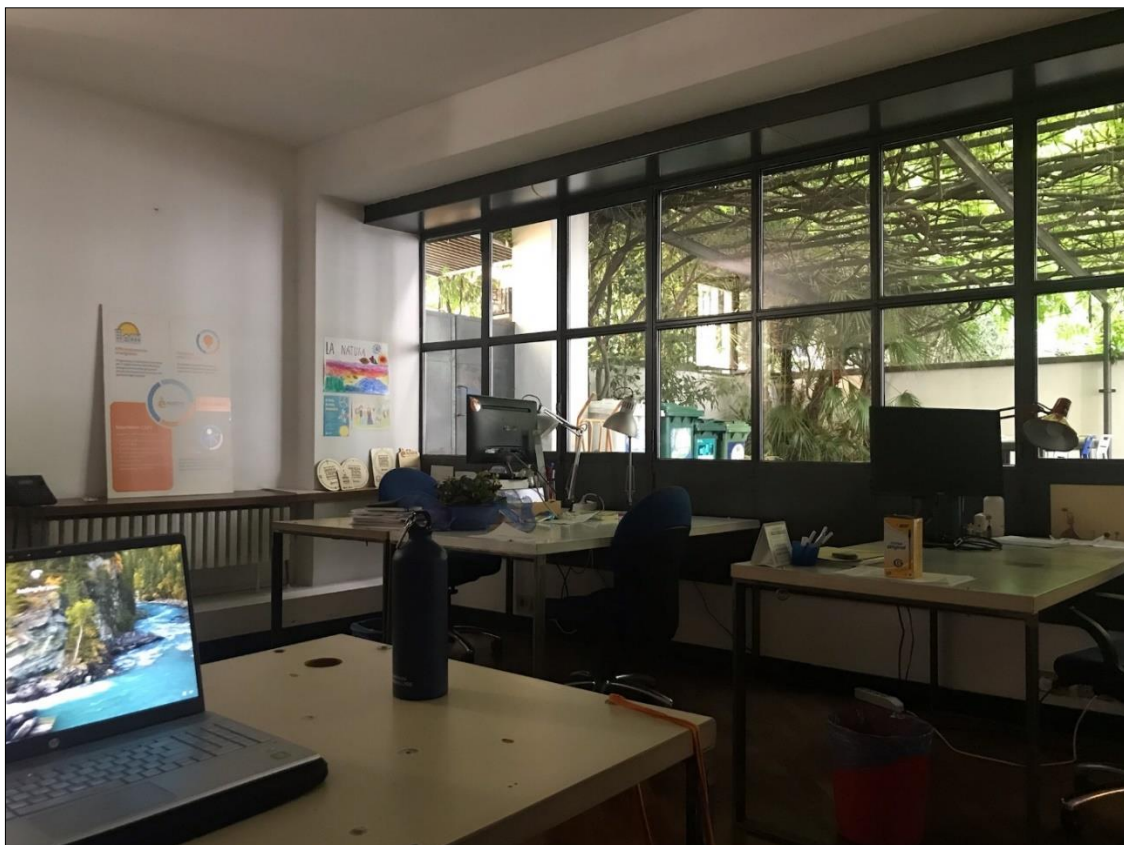
<sup>4</sup> Called *Il Giusto Clima* (lit. 'The Just Climate'), the programme was broadcast on and in collaboration with Radio Popolare.

transition from below, as highlighted in the previous chapter. Similarly, remarkable efforts came from junior staff who actively engaged in promotional and partnership activities and dedicated substantial time to engaging with cooperative members and the wider public through workshops and seminars. In the early months of 2022, with COVID-19 restrictions still partly in place, the cooperative organised or participated in around 20 webinars, some initially dedicated to its members, which were eventually opened to non-members and live-streamed on YouTube. Topics encompassed energy efficiency, energy conservation, electric mobility, and the pressing issue of the contemporary energy crisis, which directly impacted *ènostra* members (as I will discuss in more detail in the next chapter). For their unwavering dedication, these individuals appeared as moral exemplars intended, in Joel Robbins' terms, as the persons "treated as exemplary by people in the societies we study, and at the values those persons realise" (Robbins 2018: 181) as Christian's comments remarked.

This moral exemplarity was underpinned by a sense of individual responsibility transcending the corporate logic of accountability. Before each annual meeting, *ènostra* would produce a general report, which would be publicly shared on the website, documenting all the activities carried out by the cooperative and its workers, including voluntary initiatives. As a growing organisation, *ènostra* was also looking for further strategies to *rendicontare* ('account for') its activities to a large number of members who had all, to different degrees, invested financially in the cooperative. For example, towards the end of my fieldwork, *ènostra* invited a sustainability consultant to give a webinar to workers and active members about sustainability reports and documents published by companies and organisations to provide information on their environmental, social, and economic performance. However, some workers were sceptical about the necessity of incorporating these documents in *ènostra*, as the following vignette exemplifies.

Sitting at my desk in the *ènostra* marketing and communication office at the Avanzi Coworking, I was sifting through my notes from a webinar where the sustainability

consultant talked about sustainability reports and corporate accountability (Figure 15 depicts my workstation). Gianluca and Piergiorgio (a junior worker in the sales and marketing team) were at the office as well, so I took the chance to bring up the sustainability report question. After waiting patiently for the two workers to finish chatting, I asked them for their views on adopting further tools for reporting to the members. “Well, there are many things that could be considered a form of reporting,” Gianluca responded, hinting at the radio presentations, creation of divulgative video pills on renewable energy and other activities that *ènostra* workers engage with. Jumping into the conversation, Piergiorgio added that, in his view, an organisation like *ènostra* does not need formal corporate accountability tools. “We don’t need to announce that the staff participated in a tree-planting initiative,” the young employee exclaimed, emphasising that the staff’s voluntary and profound commitment to the organisation was self-evident.



**Figure 15.** My primary workspace during in-person fieldwork in Milan.

*Credit:* Author.

While Piergiorgio dismissed the idea of a formal corporate accountability framework in *ènostra*, others sensed they were navigating between scales of personal and institutional accountability (Müftüoglu et al. 2018; Smith 2021). For example, Christian emphasised this when he talked to me about his move to *ènostra* from being self-employed. During an interview, he expounded,

I had built something of my own, and, let's say, the most beautiful thing was not only making a living but [...] also having my own time, which has always been important to me... the ability to say, "Today, I don't feel like working. Ok, goodbye, I'm off." You don't have to ask for holidays. You don't have to ask for permission.

Research on flexible work arrangements underscores that professionals who value autonomy and the freedom to determine their work hours and locations often adopt self-disciplined attitudes (Cook 2020). These attitudes are commonly associated with a sense of personal responsibility characteristic of neoliberal selves. Flexible workers are perceived as embodying neoliberal values, assuming personal responsibility for self-realisation, self-promotion, and optimising their well-being (Rose 2017). Transitioning from self-employment to becoming an employee at *ènostra* presented Christian with certain alterations in how he navigated responsibility. These alterations partly concerned adapting his attitude to self-discipline to the different work environments offered by the cooperative. Without any specific prompting, the engineer consistently maintained a daily hourly log, meticulously documenting his workday activities. He explained his motivation, "To some extent, it's to reciprocate their trust in me," referring to his colleagues and employers. For Christian, this practice served as a tangible manifestation of his sense of responsibility towards *ènostra*. Christian's sense of responsibility was not limited to just his peers and superiors; it also extended to his interactions with the members and clients of the cooperative. Explaining this shift, the engineer remarked, "In *ènostra*, I had to change my approach [to the clients]," highlighting that during his self-employment days, he possessed the



autonomy to selectively decline associations with clients whom he found bothersome or excessively opportunistic. During his experience as a REC developer in ènostra, Christian found that situations in which clients expected voluntary work from the cooperative were common. “Many people ask you, and even demand, I want to do this. Can you give me the cost of that? Can you explain? Can you tell me? And I say, Hang on, we are not a charity!” For the engineer, the non-profit nature of ènostra led to a notable influx of clients and, on occasion, members who anticipated voluntary services. While he did not align with offering labour without compensation, Christian acknowledged the prevalent belief among non-profit professionals that work serves as a form of charitable expression. To a certain extent, the engineer was acquiescing to this perspective as he recognised that he was no longer representing himself “in my personal capacity but on behalf of a company.”

Studies of large firms suggest that their employees face the challenges of mediating and managing their ‘corporate person’ (Kirsch 2014; Müftüoğlu et al. 2018). As Jessica Smith (2021) points out, the term ‘person’ is used interchangeably with ‘self’ in common language. Anthropologists, however, approach the term ‘self’ as the “subjective and experiential sense that one is or has a locus of awareness — a private consciousness that, while it may be a universal human trait, is also socioculturally mediated” (McIntosh 2018: 1). On the other hand, personhood typically pertains to a socially acknowledged and attributed condition of being a social, physical, and aware entity, which offers an insight into “distinct ontological and ethnopsychological ideas about the constitution of persons, including persons’ articulation with others, their interpenetration with the world around them, their moral or jural capacities, and the qualities of their agency” (ivi). Smith maintains that the latter “provides a more nuanced theory of engineers’ agencies in the context of corporate employment” (Smith 2021: 116), particularly in its elaboration into “relational persons” intended as the “plural and composite site of the relationships that produced them” (Strathern 1998: 13). In her ethnography, Smith shows that while the engineers upheld distinct conceptions of themselves as individuals with unique backgrounds and

characteristics, the corporate environment in which they operated led to a somewhat expanded sense of personhood, “in which they were not always the authors of their own actions, found their own agencies expressed by others, and were held accountable for the actions of a distributed network of others” (Smith 2021: 117). Engineers had to navigate this distributed agency by which they “attuned their actions to the desires, mandates, and agencies of others, at the same time as they tried to influence the desires, mandates, and agencies of those others as they tried to enact corporate forms to more accountable ends” (ivi: 118).

ènostra workers were subject to a similar distributed agency whereby they had to conform to an ethics of solidarity and voluntarism spurred by the public perception of the non-profit sector. To illustrate this point further, I will return to the ethnographic account of Christian’s perception of working in ènostra. Christian referred to members or clients who expected uncompensated services, like training or consultancy, from the cooperative. Reflecting the sentiment shared by other ènostra staff, the engineer harboured resentment towards those who occasionally regarded ènostra as if it were merely “a cow to be milked.” Chiara confirmed this friction while telling me about a client demanding a free consultancy service on a REC project because he felt ènostra “should be interested in its social and environmental impact.” Her explanation to the client that certain services imply staffing costs was met with the following answer, “But you’re non-profit!,” implying that the cooperative should not be paid. Employees like Christian and Chiara navigated the tension between their responsibilities to adhere to a voluntarist ethic typical of the non-profit sector and to act in the best interest of the cooperative. Christian, for instance, described his stance as “somewhere in between those who are part of ènostra and want to focus more on ethics and social aspects, and those within ènostra who want to focus more on business.” Christian remarked that ènostra is a non-profit organisation that does not aim to maximise profits, but the cooperative still needs to generate revenue to cover operating costs and adequately compensate its workers.

## Work as a path to the good life: Responsibility and the ethics of self-care

The multiple responsibilities that my interlocutors experienced in *ènostra* go beyond mutual relationships among individuals and commitment towards the social and environmental good. They also included self-care. Susanna Trnka and Catherine Trundle (2014) highlight that obligations formed through expressions of care represent a significant, though frequently overlooked, aspect of responsibility in present-day social existence. Care is demonstrated at different levels of relationships, whether within intimate, personal connections (e.g., between a parent and child) or in broader relationships involving groups (e.g., between teachers and students or citizens and the nation). Regardless of the type of connection considered, Trnka and Trundle conceptualise care as motivated by an individual's or a group's commitment to the welfare of another. In contrast, the type of care I focus on here is centred on the self and, in particular, the sense of responsibility towards one's own well-being that emerged throughout discussions about career choices and paid employment. In her ethnography of Lancashire anti-fracking activists, Sarah O'Brien reflects on the complicated encounter between "the imperative to earn a living" (O'Brien 2023a: 56) and the desire to lead a meaningful life. Conflicted by the idea of working for the sole purpose of getting a salary, some of O'Brien's interlocutors redefined activism as a form of work which moves away from the quest for monetary compensation and embraces the fulfilment of values such as their political and ethical motivations. Unlike the Lancashire activists described by O'Brien, for the *ènostra* workers who shared their perspectives with me, paid employment was seen as a means to pursue well-being. For many, working for *ènostra* and earning a salary from the cooperative was a vector to living a good life.

'The good' has become the focus of anthropological research concerned not much with pursuing a universal definition of what is considered good but rather with the multiple ways in which individuals and communities structure their personal and

collective existence to promote and live to (at least to some extent) what they perceive as good (Robbins 2013). A strand of this research has focussed on what it means to live well, highlighting the varied perceptions of ‘the good life’ that emerge across places, societies and cultural settings (Mathews & Izquierdo 2009). In energy worlds, the pursuit of a good life is often entrenched with the views that people working in the energy industry have about the rightness and wrongness of energy resources, the societal infrastructures of which they are part and, ultimately, their participation within them (Smith & High 2017; High & Smith 2019). Studying how energy sector experts in Norway formulate ideas and take actions related to energy transitions, Anna Seeger Rauter (2022) observes that, in response to worries about climate change, these experts, whom she refers to as ‘energy elites,’ envisioned alternative energy futures that involved reconsidering their career paths. Seeger Rauter suggests that many energy elites deeply question and examine their roles in shaping what they can consider a good life. While acknowledging their privilege of living in one of the most affluent nations globally, benefiting from a robust social welfare system, experiencing a fair distribution of wealth, and holding financially rewarding positions in the industry, energy elites also recognised their role in shaping what they deemed to be a better future for everyone. Energy professionals’ career and personal aspirations were motivated by more than just economic considerations. To them, striving for a fulfilling life meant maintaining their socio-economic well-being while enhancing environmental sustainability. In ènostra, some workers grappled with similar ethical considerations regarding the role of their career in shaping a ‘good life’. They saw the choice to work for a renewable energy cooperative in a primarily profit-driven sector, such as electricity, as a way to enable a fair transition to a low-carbon society. Many workers felt that their views of a desirable energy transition resonated with ènostra’s project to promote change “from below,” a change driven by ordinary citizens rather than companies.

Nonetheless, ènostra workers’ concerns about the significance of their jobs extended beyond ideas of a good life intended as shared environmental and social good. These

concerns reached into the intimate domain of their private selves. For some of my interlocutors, the choice to work for *ènostra* encompassed notions of self-care prompted by a desire to distance themselves from work environments which they perceived as adverse to their pursuit of well-being. One of the most significant examples in this sense was the story of Giacomo, who was the Sales and Marketing Manager at *ènostra*. Before his role at *ènostra*, he worked different jobs. After graduating with a degree in management engineering, Giacomo started his career in the IT sector. However, after nearly a decade, he made a deliberate career change because, in his own words, “I was tired of spending my time in the IT offices of large companies, dealing with problems and messes.” Giacomo’s enduring passion for renewable energy prompted him to pursue a Master’s focused on energy, environment and climate protection, a decision that proved to be a turning point in his career. Following the Master’s, he got a job as a consultant at a renewable consulting firm. After several years, he moved to a prominent Italian utility company, where he served in the Business Development for Renewables department. In this position, Giacomo actively participated in diverse activities related to project analysis, encompassing bioethanol, thermosolar, and photovoltaic panel production. The move from the consulting firm to the utility company marked a significant shift in Giacomo’s career, guiding him into the dynamic realm of the energy sector. Reflecting on this move, he noted, “I gradually started seeking to improve my position, and when the opportunity presented itself, I did not think twice and seized it.” After a decade-long tenure at the Italian utility, Giacomo assumed leadership of the Marketing Department at the Italian branch of a prominent French gas company. In this role, he oversaw marketing activities in the consumer division for what he described to be a fulfilling three-year period. Despite finding satisfaction in the job and its associated responsibilities, he soon realised that it also entailed “a significant bureaucratic burden, which consumes your time and the time you would dedicate to actual business work.”

Although he managed to cope with the bureaucratic burden of the job, Giacomo admitted that he could no longer bear what he described as “the significant

commitment related to managing internal relationships, the power structures within the companies, and your career ambitions within those companies.” Giacomo expressed his discomfort adapting to what he perceived as systemic challenges faced by employees of corporate structures. He found it especially burdensome to spend much time managing relationships and self-protection instead of focusing on “actual work.” Giacomo admitted that his character made him incompatible with the corporate setting, which often led to internal struggles and kept him alert about the need to anticipate and deflect attacks from colleagues and superiors. “I’m telling you, when I talk to my former colleagues, I don’t relate to them anymore,” he said, expanding on his sheer disinterest in the detrimental dynamics of workplace conflicts. In Giacomo’s view, his previous colleagues dedicated an inordinate amount of time and mental effort to issues he considered essentially futile, centred around power dynamics and the quest for higher salaries. Upon joining *ènostra*, he landed in an entirely distinct work environment that prioritised collaboration and mutual support over competition and personal gain. Here, Giacomo recognised that cooperation and assistance were integral to having a good job and leading a fulfilling life, superseding the traditional focus on money and power. Determined to keep working in the energy sector, Giacomo embraced *ènostra* as a project that, in his own words, “was closer to my ideals and also with the pursuit of a different work ethic.” In her ethnography of mobbing in contemporary Italy, Noelle J. Molé (2012) argues that the pursuit of well-being at work is now subject to a neoliberal paradigm, requiring individuals to seek it through decentralised services and programmes when it should be granted as a right. The term ‘mobbing,’ used in various European countries, corresponds to what is termed ‘moral harassment’ in France and is commonly known as ‘workplace bullying’ in the UK (Heywood 2014: 151) . According to Molé, the issue of mobbing reflects broader criticisms of the neoliberal work environment, perceived by interlocutors as pathological. In this context, Molé argues, the pursuit of well-being at work shifts from authorities safeguarding workers against occupational diseases to the individual who has to take on responsibility for self-care. In post-welfare Italy, people like Giacomo view the non-profit sector as a space where workers can find ethical and health-

promoting workplaces. My interlocutors often highlighted the inclusive and collaborative working environment in *ènostra*. Some regarded the “horizontal organisation of work” as one where workers feel listened to and appreciated regardless of their seniority and where people share their knowledge and skills as ethical work practices. They valued these practices more than the higher salaries that for-profit companies might offer.

The emphasis on self-care becomes particularly evident in the example of Giusy, another recently hired *ènostra* employee. When I first met her, Giusy was employed in *ènostra* for about a year in a role within the technical service team. In January 2023, a few months after I had returned to Scotland from fieldwork, we met for an online interview. At the time, she was on a one-year contract that followed a previous six-month contract. As a junior engineer who left academia out of exhaustion, Giusy enjoyed the flexibility of short-term contracts as she was still figuring out the career path she wanted to follow. She talked profusely about why she chose to leave academic research, which she felt had “betrayed her inquisitive spirit.” After a PhD in Electrical Engineering, she took on several post-doctoral research positions at various institutions, often collaborating with non-academic partners. The young engineer recognised that such collaborations marked a transition from theoretical to applied research, underscoring how a corporate mindset had permeated every facet of her work. “It was all about profit,” she said repeatedly, hinting that everything, from grant applications to lab interactions, was driven by the productivity imperative that she felt characterises large segments of academic labour. Giusy felt trapped in an academic ‘audit culture’ (Strathern 2000) where numbers, intended as deliverable results, were the hard currency rather than passion for research. Worn out by extenuating work schedules and unhealthy relationships with colleagues and principal investigators, she experienced an existential crisis spurred by a working environment where her co-workers’ values did not align with hers. “Research was no longer being done for the sake of an ideal,” she emphasised, once more stressing profit and productivity. Giusy conveyed that, in *ènostra*, she rekindled her understanding of what it truly meant to

strive for an ideal. “The ideal of being a cooperative and an energy cooperative, I mean, I hadn’t seen anyone, even from the job interview, who said we had to aim high. Well, aiming high for sure, but not with this profit-driven anxiety.” Praising *ènostra*, the young engineer also expressed her appreciation for the cooperative's collaborative and inclusive working environment. “It became clear to me that we were people on the same side, looking for the same things, wanting to improve not just because of our economic condition, but also because our growth as individuals had to improve.”

My interlocutors felt that having a meaningful job was more crucial to their well-being than earning a higher salary. For many *ènostra* workers, the motivation to grow, both professionally and personally, went along with the aspiration to contribute positively to society and the environment through their work, strongly encouraging their participation in voluntary initiatives. This was especially true for junior workers. At the same time, some among the senior workers perceived a need to move past a voluntarist work ethic typical of the non-profit sector. According to them, transitioning to an entrepreneurial structure that would position *ènostra* as a competitor to large utility companies primarily required a shift in mindset, particularly regarding the approach to money. “Making profits and earning money isn’t necessarily a negative thing,” said one of the senior workers, “especially if it allows you to compensate and retain talented individuals fairly.” As the cooperative membership base expanded, the increased workload necessitated additional effort from some workers, a trend I observed during my final months of fieldwork. Moreover, some senior workers believed that the amount of work required from junior workers and the high level of professionalism they contributed to *ènostra* should directly correlate with higher salaries. They expressed concerns that neglecting this aspect might prompt young professionals to leave the cooperative in favour of alternative employment opportunities in other organisations. Unlike the anti-fracking activists described by O’Brien (2023a), *ènostra* workers saw receiving a good salary not opposed to collectively pursuing a cause but rather as an incentive to do it better. O’Brien maintains that her interlocutors distinguished between wage and funding, as they saw



the former as a practice that compensates individuals, whereas the latter funds collective tasks of causes. Conversely, for *ènostra* workers, paid employment did not bear the same contradiction. Instead, *ènostra* workers saw being employed by the cooperative as a means to pursue 'the good' as a way of combining their responsibility for societal and environmental causes with self-care.

## Conclusion

In this chapter, I have shown how work and voluntarism, rather than formal divisions of roles in the cooperative, are better understood as modalities through which individuals articulate their multiple responsibilities in *ènostra*. In various ways, these individuals navigate the blurred boundaries between professional and personal commitments that delineate moral, social, and political responsibility within the non-profit sector. In this context, the tensions between voluntary activities and paid employment characterising non-profit settings shape the particular moral subjects that I term 'cooperative selves'. These tensions were neither unidirectional nor uniform. Each 'cooperative self' experienced them uniquely, as evident from the provided accounts, although a general distinction can be drawn. On the one hand, *ènostra* active members embraced their responsibility for promoting change through volunteering initiatives they put at the cooperative's service. On the other hand, voluntarism defined how *ènostra*'s employees embraced dedication to their work. While some understood working for *ènostra* as a way to reconcile moral and institutional obligations, others perceived it as a form of self-care integral to their well-being.

In analysing *ènostra*'s 'cooperative selves,' it is crucial to emphasise that the distinction between workers and non-workers is not purely formal. Albeit sharing a perception of societal and environmental responsibility and a sense of accountability towards the cooperative, they had different roles, obligations, and returns. However, a purely formal categorisation would fall short of grasping the multiplicity of responsibilities

that define the ‘cooperative selves’. Despite originating from different starting points, active members and employees discovered themselves entangled in a “web of responsible relationships” (O’Brien 2023a: 55). These responsible relationships revolved around voluntarism and work as practices that exceeded formal definitions of roles in an organisation. Instead, they appeared as an “ambiguous matter of exchange and sociality” (Kjaerulff 2015: 2) that surpassed the commodity form and reached into the ethical and moral realm.

By examining the ‘cooperative selves,’ this chapter provided a more nuanced understanding of the dynamics that shape the life of an organisation operating amidst the tensions between capitalism and the non-profit sector. This led me to consider how these tensions manifest beyond different approaches to entrepreneurship, as discussed in Chapter 2, to encompass the ways in which individuals perceive and navigate their roles and responsibilities within the organisation. As *ènostra* continued growing as an organisation, some of my interlocutors started to reflect on how a non-profit ethos grounded on voluntarism conflicted with the ambition to compete in the market as an enterprise. These insights supported my argument that the pursuit of the ‘good’ was intimately connected to the challenges of balancing moral aspirations with market demands. Moreover, they prompted me to explore the implications of *ènostra*’s position at the intersection of capitalism and non-profit more deeply. In Chapter 4, I take the reader on a journey into the electricity economy to investigate a different dimension of *ènostra*’s labouring upon ethical subjects, highlighting the tensions between moral ambitions and market dynamics.

## Chapter 4:

### Freedom is Self-Production

<i>Vorrei essere libero come un uomo.</i>	I would like to be free, as a man
<i>Come un uomo che ha bisogno</i>	is free.
<i>di spaziare con la propria fantasia</i>	Like a man who needs
<i>e che trova questo spazio</i>	to wander with his imagination
<i>solamente nella sua democrazia.</i>	and who finds this space
<i>Che ha il diritto di votare</i>	only in his democracy.
<i>e che passa la sua vita a delegare</i>	Who has the right to vote
<i>e nel farsi comandare</i>	and spends his life delegating
<i>ha trovato la sua nuova libertà.</i>	and in receiving commands
<i>La libertà</i>	finds his new freedom.
<i>non è star sopra un albero,</i>	Freedom
<i>non è neanche avere un'opinione.</i>	is not being on a tree,
<i>La libertà non è uno spazio libero.</i>	nor is it having an opinion.
<i>Libertà è partecipazione</i>	Freedom is not a free space.
	Freedom is participation.

G. Gaber, *La Libertà* (1972)

#### Introduction

The passage above highlights the central verses of *La libertà* ('Freedom'), a song crafted in 1972 by the Italian singer-songwriter Giorgio Gaber in collaboration with lyricist Sandro Luporini. Gaber's music and lyrics have attracted a large following and left a deep imprint on the culture and politics of Italian society for over four decades since his debut in the late 1950s. *La libertà* is one of his best-known songs, written in a period when Gaber's artistic pursuits aligned more intimately with the fervent protests of the workers' and students' movements that swept through Italy, marking perhaps the most radical social and political upheaval in post-World War II Italy. In March 2021,

ènostra live-streamed a webinar on YouTube titled *Libertà è autoproduzione* to showcase its project of a collectively-financed wind turbine named *Il Cerrone* ('the Big Mount') in the central Italian region of Umbria (see Figure 16 for a promotional graphic of the event and Figure 17 for a picture of *Il Cerrone*). The title explicitly references *La libertà's* refrain, replacing the word *partecipazione* ('participation') with *autoproduzione*, roughly translated into English as 'self-production.' While it generally denotes producing or manufacturing goods independently without relying on external suppliers, the Italian term *autoproduzione* conjures a distinct connection to the electricity economy. The Italian dictionary defines it as follows: "In economics, self-production of electric energy, outside the monopoly system, carried out by an industrial company to meet the requirements related to its production processes."<sup>1</sup> As detailed in Chapter 2, ènostra set off to achieve the ambition to close the loop of electricity production and consumption. ènostra's founders saw this goal as a crucial step in enabling members to become self-producers of the electricity they consumed.



**Figure 16.** Graphic used to promote the webinar 'Freedom is Self-Production'.

*Credit:* ènostra's website.

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<sup>1</sup> 'Autoproduzione.' *Vocabolario Treccani*. Source: <https://www.treccani.it/vocabolario/autoproduzione/> (Accessed: 27 March 2023).



**Figure 17.** Snapshot showcasing *Il Cerrone* plant alongside a gathering of *ènostra* members. A team of *ènostra* workers crafted an 'è' (the initial letter of *ènostra*) from stones and sand.

*Credit: ènostra's Facebook page.*

In Chapter 3, I examined how participation in the cooperative's activities through work and volunteering serves as the way *ènostra's* active members and workers embrace responsibility. The 'cooperative self' surfaced as a subject whose moral qualities emerged in connection with the tensions between work and volunteering that my interlocutors encountered in the non-profit sector. In this chapter, I explore the 'self' (it. *auto*) in its adjective form, emphasising how the notion of 'self-production'

underpins the particular political aspiration that *ènostra* encouraged members to pursue. When linked to production (It. *produzione*), the word ‘self’ highlights a form of participation where economic aspects came to the fore along with political ones. The notion of self-production informed *ènostra*’s political aspiration to “break free” from the mainstream electricity market. As I will detail in this chapter, “breaking free from the market” unfolded as a set of moral and economic relations between *ènostra* and the members who committed to the cooperative’s aspiration. In the next section, I elaborate on how my interlocutors linked ‘self-production’ with freedom, highlighting how these connections manifest within the electricity economy.

### Breaking free from the market: *ènostra* and the electricity economy

Recent anthropological discussion has explored ‘freedom’ from various perspectives, often in dialogue with other notions. Drawing substantially on the work of Nobel-Prize economist Amartya Sen (1999), Alberto Corsín Jiménez (2008b) pondered the relations of freedom and wellbeing to advance the latter as a field of anthropological inquiry. In this sense, the distillation of ‘capabilities’ (different from ‘functionings’) at the core of Sen’s concept of human wellbeing as freedom is conducive to a model of “proportional sociality” that “takes into account different ways in which people inflect and qualify their relationships” (Corsín Jiménez 2008b: 194). In other words, the equilibrium between social and personal choices significantly shapes an individual’s capacity to become ‘capable.’ For James Laidlaw (2014), an “ethnographically usable understanding of freedom” should be sought in the ordinary ethical life of people where the study of ethics ought not to be dedicated to a “more or less distinct domain of social life” (Laidlaw 2014: 93, 43) such as politics or the economy. From this perspective, an adequate understanding of freedom should do without a practice theory view of agency, which ties the efficacy of the individual inextricably to its ability to alter structure. Practice theory systematically conflates freedom with the idea that people’s actions necessarily yield structural or transformative efficacy. Consequently, it only acknowledges actions that lead to structural transformation as conducive to

freedom. Building on Laidlaw (2014), Mette High (2013) argues that the experience of freedom of Buddhist monks in post-socialist Mongolia encourages us to shift away from the idea that freedom can only exist when constraints are absent. Occupying a world in which humans coexist with a multitude of non-humans, the monks exercise a “cosmopolitical freedom” (High 2013: 765) not centred on the capability to make unrestricted choices but rather on that to engage in a world that encompasses much more than the individual self.

At first glance, ènostra’s project of self-production implies a rather materialist notion of freedom: freedom is tied to a disentanglement from the electricity market and, more specifically, to its carbon economy. The cooperative’s workers and members understand freedom more precisely as *sganciarsi dalle fossili* (lit. ‘breaking free from fossil fuels’), as one of its slogans states (Figure 18). Many ènostra members I interviewed associated freedom with energy independence and self-sufficiency. Across our conversations, my interlocutors engaged with these themes from perspectives that mainly addressed political and power dynamics on both a global and local level. From a broader perspective, some argued that achieving energy sovereignty entailed liberating oneself from the constraints of fossil fuels by reducing dependence on influential fossil fuel-exporting nations. Their insights delved into the extensive geopolitical ramifications of carbon-based economic relationships, echoing arguments about the adverse effects of fossil fuel economies on democratic processes (Mitchell 2009; 2011). On a more localised scale, others underscored the potential for individuals to make choices regarding their energy sources and providers for their homes. Members like Giulio, for example, stressed the importance of bolstering local economies and supporting small-scale producers, broadening the scope of this issue beyond the realm of energy and encompassing other sectors typically dominated by large distributors, such as the food and textile industries.



**Figure 18.** A t-shirt featuring the slogan 'Sganciamoci dalle fossili!' ('Let's break free from fossil fuels!'). This is one of the promotional accessories distributed by ènostra to its members.

*Credit: ènostra's Facebook page.*

Frequently, my interlocutors felt the overwhelming economic and political influence of what they called “the big energy players” (i.e., large energy utilities) as the primary challenge to realising their ideals of freedom. Statements like “the big energy players are almost the sole protagonists of the energy system,” “sovereignty means breaking free from multinational companies,” and “a few large competitors dominate the market” effectively encapsulated this sentiment. According to my interlocutors, people’s relationship with energy remained significantly influenced by a handful of large corporations that wielded substantial economic power, shaping policymaking in their favour while restricting individual liberties concerning this essential resource. For ènostra members, the cooperative ultimately represented the possibility of “breaking



free” from the fossil economy. In the following sections, I dig deeper into how the rupture with the market manifests in ènostra. Rather than through a material disconnection from the mainstream electricity market, I argue, ènostra members pursued and negotiated their aspirations of freedom from within it. In the next section, I will provide additional context and evidence of the dynamics of the electricity market and its associated infrastructure to better frame my argument.

### Electricity infrastructures and markets

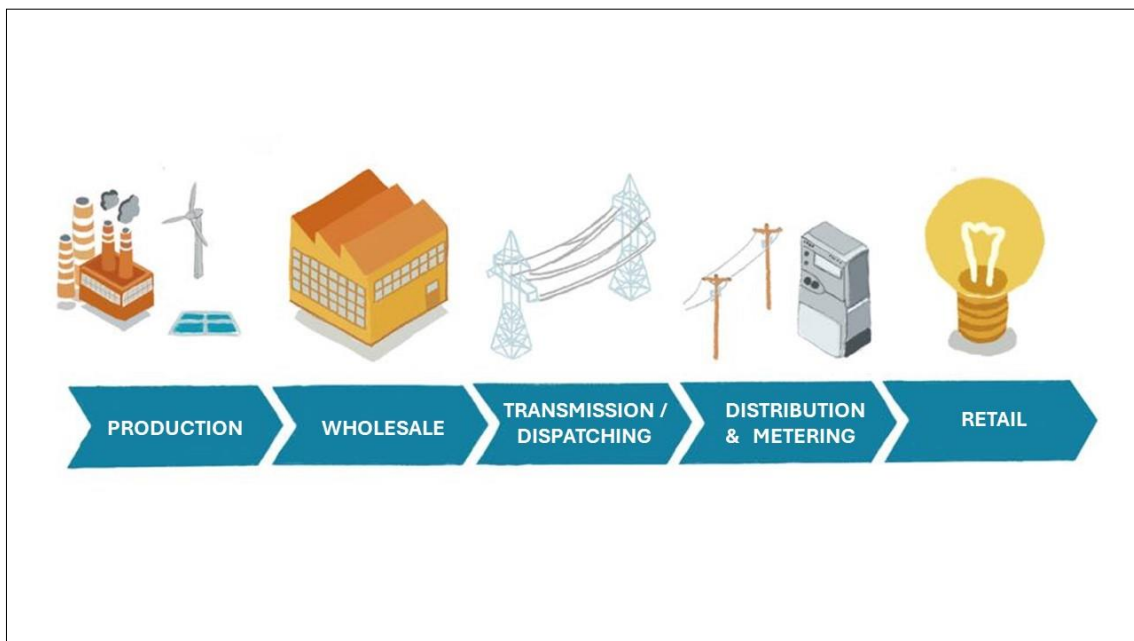
Electricity is a special commodity. Despite being a fundamental component of modern life since the late 19<sup>th</sup> century, it remains imperceptible and inaudible in the daily lives of most individuals (Boyer 2015). Its intangible nature makes electricity an intriguing subject for anthropological inquiry. One key aspect that anthropologists have spotlighted is the inseparable relationship between electricity and its infrastructure (Abram et al. 2019; Bakke 2019). Electricity demands a unique infrastructure coursing through transformers, substations, synchrophasers, relays, switches, fuses, and wires that transmit it from generation sites to its consumption points. These material components, including ports, chargers, outlets, and concealed wiring in people’s homes, collectively constitute what we call ‘the grid’ (Bakke 2016). Electricity’s coexistence with the grid makes it a special commodity because, unlike other goods, it cannot sit in a warehouse awaiting end-users decisions or favourable price fluctuations. Despite the battery industry’s efforts to flood the market with storage systems, most electricity generated in power plants must be immediately consumed (Bakke 2016). Furthermore, due to the limited substitutes available to end-users during power outages, its demand remains mainly unresponsive to price fluctuations. Economists describe this as inelastic demand (Özden-Schilling 2021).

In Chapter 2, I explained that, throughout the 20<sup>th</sup> century, most economists assumed there could be no such thing as a marketplace for electricity because many competitors could not afford initial investment in infrastructure. In the United States,

for example, the electricity market was considered a ‘natural monopoly’ dominated by a single, state-licensed, and state-regulated firm (Özden-Schilling 2021). However, with the initial attempts at liberalising energy markets in the 1980s, a transformation began in electrical infrastructures. This transformation led to the separation of generation, transmission, distribution, and supply, which became distinct stages of carrying electricity, ultimately evolving into distinct marketplaces (Özden-Schilling 2015). In Italy, the journey towards energy market liberalisation commenced at the end of the 1990s with the introduction of Law Decree 79/1999, known as the Bersani Decree, named after the then-Minister of Industry, Pierluigi Bersani. The Bersani Decree identified the figure of the ‘eligible customer,’ namely end-users characterised by their electricity consumption (in GWh) who have the right to access the liberalised market. All end-users could not become eligible customers until they reached a set consumption threshold and remained in the regulated market. Concurrently, the market was opened to private operators, with state control gradually decreasing over the various phases of energy distribution. To ensure fair competition in the market, the Decree established a public regulatory body, the *Autorità per l’Energia Elettrica e il Gas* (‘Authority for Electricity and Gas’), later becoming the *Autorità di Regolazione per Energia Reti e Ambiente* or Arera (‘Regulatory Authority for Energy Networks and the Environment’). Arera was tasked with monitoring and supervising the operations of private companies. In 2007, a second Bersani Decree officially opened up the national free energy market to every customer.

The Bersani Decrees marked the end of the monopoly of *Ente Nazionale per l’Energia Elettrica* (Enel), which had been the sole operator responsible for generating, transmitting, dispatching, and distributing electricity in Italy since the nationalisation of the grid in 1962. Before, customers could only purchase electricity from Enel, except for a few areas where the local municipality’s company supplied electricity. In line with neoliberal electricity reforms elsewhere, the Bersani Decrees disaggregated the various phases of the electricity supply chain. Italy’s electricity supply chain can be roughly summarised as follows. Production companies handle the generation:

sourcing raw materials, converting sources (renewable and fossil) into electrical energy, transmitting the produced electricity into the grid, and constructing and maintaining power plants. In the wholesale phase, production companies are remunerated for the sale of electricity on the Italian *Borsa Elettrica* ('electricity stock exchange'). The electricity produced and sold wholesale is transmitted from production companies to local distributors on the national high-voltage grid. Distributors primarily handle the transformation of electrical energy from high to medium/low voltage and, secondarily, the physical distribution to end-users, alongside connection operations and metering services. Finally, in the retail phase, sales companies manage the relationship with the end-user: these companies purchase electrical energy from the electricity exchange or directly from producers and handle all commercial and administrative aspects related to the supply of electrical energy (see Figure 19 below).



**Figure 19.** Illustration of the Italian electricity supply chain.

*Credit:* Author.

However, only some of these five phases of the electricity supply chain are fully liberalised: production, wholesale, and retail. Transmission and dispatching are distinct functions within a single market that operates as a ‘natural monopoly.’ Transmission involves managing, maintaining, and developing the national high-voltage electrical grid, and dispatching entails managing electricity flows on the grid at any given moment. These two functions are overseen by a public joint-stock company called Terna. Distribution and metering also have different functions within a single market that operates as a ‘natural monopoly,’ and Enel oversees them. Besides these two ‘natural monopolies,’ some scholars argue that the Italian electricity market is characterised by an oligopoly (Osti 2017; Cringoli 2019). As of 2021, nine major electricity utilities controlled 60% of Italy’s household electricity retail market, with formerly State-owned Enel and Eni (*Ente Nazionale Idrocarburi*) at the forefront of retail (Statista 2023). In this context, ènostra operates at the two ends of the supply chain, production and retail, in line with its aspiration to “close the loop.” The following section will clarify how the market mediates transactions between ènostra and its members.

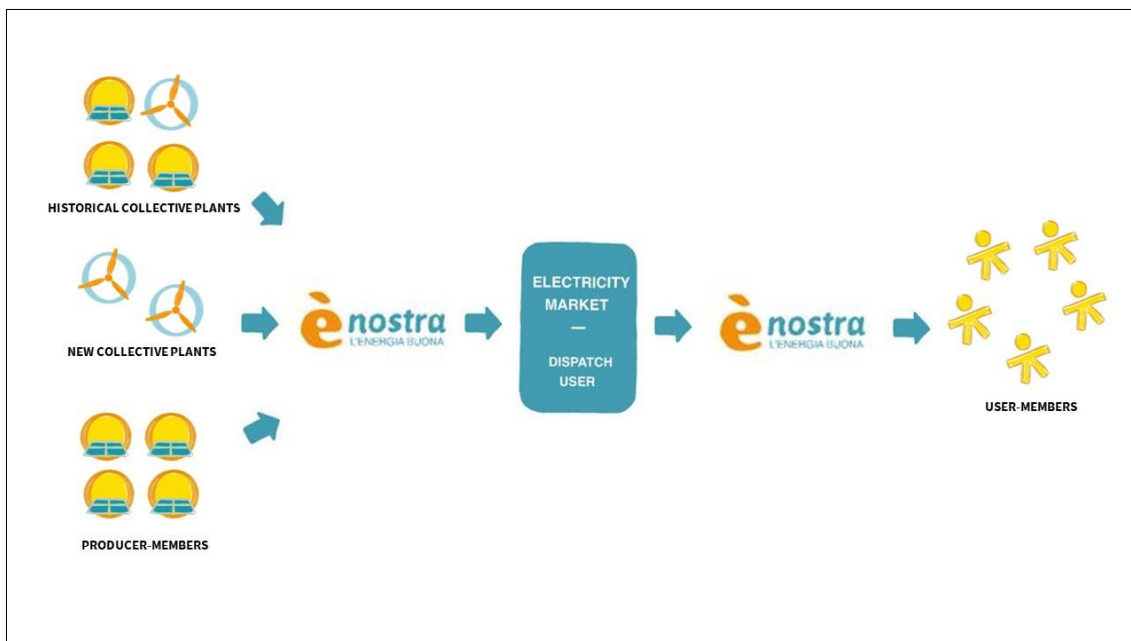
### ènostra’s electricity

According to a recent cooperative report, ènostra (2023) supplies its members around 42 GWh of electricity annually. ènostra produces electricity through three different types of plants. The first type consists of the ‘historical’ collective plants (11 solar plants and one wind turbine), most of which were incorporated from Retenergie with the merger. The second type is the new collectively financed plants, one being *Il Cerrone*.<sup>2</sup> The third type comprises the plants owned by the so-called member-producers (It. *soci produttori*). Member-producers are private owners of renewable energy facilities who, through becoming cooperative members, can sell the electricity they do not need for their own use to ènostra. ènostra, in turn, sells it to the rest of the

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<sup>2</sup> In 2023, almost one year after I had returned from fieldwork, ènostra inaugurated a second collectively-financed wind turbine, not far from *Il Cerrone*.

members, who are called member-users (It. *soci utenti*). These transactions do not happen in a vacuum but are mediated by the electricity market. As Piergiorgio, from the marketing and sales team, explained regarding the member-producers, “Energy is simply fed into the grid. Then, there is a private agreement between ènostra and its members-producers. At the same, there is a contract between ènostra and its *utente del dispacciamento*.” The *utente del dispacciamento* or UDS (lit. ‘dispatch user’) is an operator qualified to purchase and trade electricity from a producer on the market. In other words, the UDS operates as an intermediary between ènostra (the ‘producer’) and its members (the ‘consumers’). Similarly, ènostra must sell the electricity produced through collective plants on the wholesale market and repurchase it from a trader before selling it to the members (Figure 20).



**Figure 20.** Illustration of electricity transactions within ènostra.

*Credit:* Eleonora Gagliardi.

The above represents just one way the market mediates between ènostra and its members. Most electricity supplied to the members is not produced by either ènostra’s collective plants or member-producers’ plants. According to the report above, collective and member-producers’ plants amount to around 22% of ènostra member-

users' annual electricity demand. Enel must buy the remaining circa 78% on the wholesale market to meet this demand. In supplying electricity to member-users, Enel uses a standard provisioning system, entailing a tariff mechanism similar to that of other electricity suppliers. Enel's tariffs are linked to the *prezzo unico nazionale* or PUN (lit. 'national single price'), plus a slight additional charge for operational costs. The PUN is the reference price for electricity on the *Borsa Elettrica*. This means that the price most Enel member-users pay for electricity is intrinsically tied to fossil fuels. Like its European counterparts, the Italian *Borsa Elettrica* operates transactions based on a marginal pricing system. Initially developed in the United Kingdom when the country first embraced liberalised electricity markets, this system determines the daily electricity price, which would otherwise be highly volatile.<sup>3</sup> The daily price is established by aligning the estimated demand with the actual supply capacity. Once demand is ascertained, each producer specifies the quantity of electricity it can offer and its corresponding price. The most cost-effective bids are accepted by the *Gestore del Mercato Elettrico* (GME), a publicly operated company responsible for overseeing the electricity market until demand is entirely met. One notable peculiarity of this system, often deemed perplexing by many analysts, is that all producers participating in the daily market are compensated at the highest price within that mix. Marginal pricing allows new producers to enter the 'auction' with low prices, fully aware that they will receive better compensation (Codegoni 2021; Saccò 2022). Since electricity generated from fossil fuels is less cost-effective than renewables (when subsidies support these, as in the case of Italy), fossil fuel-based producers, who are also active competitors, will submit the highest bids. These bids will ultimately determine the final price.

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<sup>3</sup> The idea behind this approach was to prevent the scenario in which previously amortised coal-fired power plants would significantly undercut their prices. Such a situation would have adversely affected newer gas-powered plants, which could not effectively compete on price.

Having delineated how electricity and economic transactions between *ènostra* and its members occur within a network of market intermediaries, I will develop my argument in the following sections. I will first review how anthropologists have interpreted ethical consumers and prosumers as moral actors who, at various levels, disengage with capitalist markets perceived as unethical. Then, I will examine how the disengagement of these moral actors from the mainstream electricity economy was articulated in *ènostra*.

## Ethical consumers, prosumers and the electricity market

Neoliberal interpretations of market economies rest upon the concept of markets as universal, objectified constructs centred on the individual's pursuit of maximising material well-being and finding value for money. In this perspective, the 'invisible hand' of the market guides the interaction of supply and demand, prioritising market forces over individual needs. Anthropological investigations into market relations challenge this view by examining societies in which capitalist markets are peripheral or exogenous and societies in which those markets are prevalent (Busse 2022). Anthropologists interrogate people's actions within capitalist markets, meticulously considering the distinct social, political, and ethical contexts that influence and form part of these actions. They aim to comprehend the multifaceted relationships in these market settings and how concepts such as 'producer' and 'consumer' are constructed (Dilley 1992). Much anthropological research on market relations has focused on alternative systems of economic exchange that seek to differentiate themselves from mainstream marketplaces. According to Geert De Neve, Peter Luetchford, and Jeffrey Pratt, these alternative economies formulate self-representations grounded in values perceived as opposed to the values of capitalist economies (De Neve et al. 2008). These values emphasise the precedence of social relationships over impersonality, the rejection of open markets, the blending of production and consumption rather than segregating them into distinct spheres, fair pricing founded on livelihoods as opposed to profit-oriented pricing, and regulatory measures as counterweights to unfettered

market forces. Both in scholarly and activist circles, people who seek to pursue the above values through their consumption practices are called 'ethical consumers.' According to James Carrier (2012), the adjective 'ethical,' when associated with 'consumer,' points to the fact that individuals choose what they consume based on their evaluation of the moral aspects of the context where the goods are produced. Ethical consumers tend to opt for products made in ways that these consumers see to be socially and environmentally sound or, at least, better than the alternatives available. Consumer behaviour becomes an expression of ethical selves who "set moral ideals, create visions of alternative economies, develop agendas for improvement and implement new principles of production, work, trade and consumption" (Mauksch 2022: 266). These ethical selves engage with questions about the 'rights' and 'wrongs' of economic behaviour and market exchange. They also imply or directly articulate a critique of the free market and pinpoint themselves either in opposition to it or in struggles to reform or replace the market through exchanges carried out on a different basis, under different values.

Often attributed to futurist writer Alvin Toffler (1980), the prosumer concept brings a different light to the discussion about self-production. According to Toffler, prosumers produce goods and provide services that they need and consume, such as preparing their own food, crafting their own items, or conducting their own household tasks. They do so not necessarily out of necessity but due to a "do-it-for-yourself" attitude, as opposed to a "do-it-for-the-market" (Toffler 1980: 358). Stefanie Mauksch (2022) characterises prosumerism as a form of ethical consumerism that transforms the desire to break free from capitalist consumption into a quest for self-sufficiency. From this perspective, prosumers are considered "ethical consumers who transform their lives in ways that reduce commerce to an absolute minimum, preferably relying on autarky and non-monetary exchange of goods" (Mauksch 2022: 272). Similarly, Elizabeth Kosnik (2018) argues that prosumers take ethical consumerism a step further as they aspire to reject the consumption of goods produced by others, irrespective of how closely the practices and values of producers align with their expectations. As a



result, prosumers aspire to a self-sustaining lifestyle that enables and requires them to create and supply nearly everything they need for their families. However, these aspirations often fall short of escaping consumerism altogether. As Kosnik's research in New Zealand and Austria illustrates, prosumers might occasionally resort to waged labour and economic exchanges to meet expenses such as bills, taxes, transportation, and non-state-provided healthcare and acquire goods they cannot produce themselves. For Kosnik, while prosumers may share the same objectives as ethical consumers, that is, "protecting the social realm from incursions of values and practices from the economic realm" (Kosnik 2018: 127), their methods differ substantially. While the ethical consumer selects certain goods and avoids others, the prosumer shifts production from the market back into the social context of home and household.

From a prosumerism perspective, a radical concept of energy self-production conjures up the practice of living off the grid. As anthropologists Phillip Vannini and Jonathan Taggart point out, "[o]ff-grid isn't a state of mind" but "the property of a building (generally a home but sometimes even a whole town) that is disconnected from the electricity and the natural gas grid" (Vannini & Taggart 2015: 1), reminding us once again of the inextricable link between electricity and its infrastructure. Living off the grid is far more widespread than one would assume. One-quarter of the global population resides in dwellings that lack dependable and reasonably priced heating, lighting, and cooking facilities, and presently, the number of people living without access to electricity is more significant than at any point in human history (Ritchie et al. 2019). Indeed, experiences related to being 'on' or 'off' the grid may result from development processes, neoliberal government policies, and political actions that reproduce global social and economic inequalities. In places like the hamlets of the north coast of Papua Guinea and the highlands of the eastern Indian state of Odisha, many people live disconnected from but in the vicinity of (or in the shadow of) larger centralised energy systems, which become means through which they envision their capacity to demand recognition, resources, and entitlements from the government (Cross 2017). At the same time, examples from wealthier regions of the world, like the

Welsh eco-villagers described by Elaine Forde (2016; 2017) and the Canadian off-gridders encountered by Phillip Vannini and Jonathan Taggart (2013; 2014), suggest that material disconnection from the grid can be a deliberate practice. In these cases, off-gridders use their material disconnection from the grid to signal a moral detachment from the political and economic contexts in which grids are embedded.

In *ènostra*, while prosumerism involved a moral detachment from the grid, it did not imply a material disconnection. Contrarily, the notion of the prosumer I encountered in *ènostra* was contingent on the cooperative's links with the grid and the market dynamics that underpin it. The *ènostra* prosumer emerged in continuity with the 'ethical consumer,' defined by the same moral commitment to the cooperative's goal to "break free from the market." Like the prosumers described by Kosnik (2018), in *ènostra*, 'prosumers' aspired to take ethical consumerism a step further. However, I argue that *ènostra* prosumers differed from ethical consumers not because they avoided monetary transactions but because they engaged in a different type of monetary transaction. Becoming a prosumer involved a further step than simply choosing *ènostra* as a renewable energy supplier: investing money in the cooperative's project to pursue self-production. In the following sections, I will detail how notions of ethical consumers and prosumers emerge, highlighting their connections and differences and how market relations shape them.

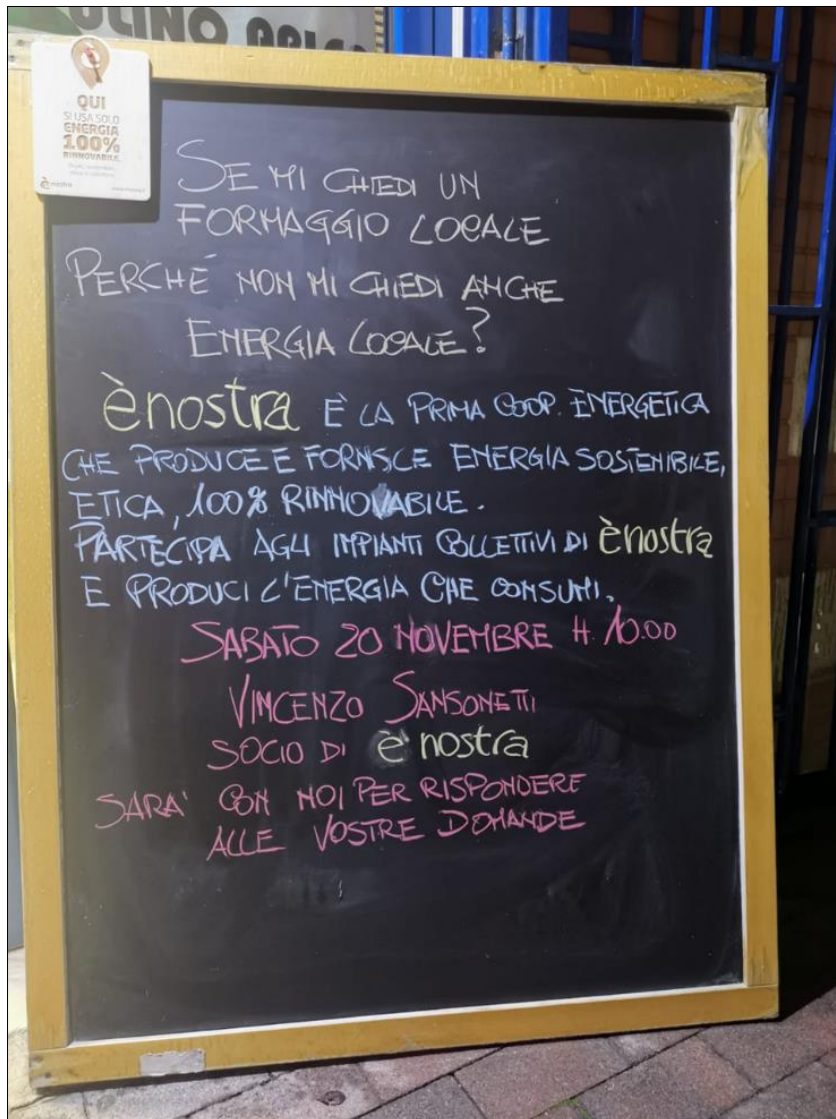
### **If you ask me for local cheese, why don't you also ask for local energy?**

One of the fundamental aspects of ethical consumerism is that ethical consumers endeavour to reestablish the link between the realms of production and consumption. This endeavour takes on various forms at an organisational and symbolic level. On the organisational front, ethical consumers attempt to reconnect with producers outside conventional economic channels. They often favour small-scale producers with indications of 'direct' or 'fair' supply chains or engage in self-production, as seen in the intersection of ethical consumerism and prosumerism mentioned earlier. Conversely,

on the symbolic level, ethical consumers forge connections with producers through discussions about product origins and production processes, informed by direct experiences or product labelling. Regarding the symbolic level, especially within food systems, alternative economy movements often aim to emphasise how different food chains organise production and distribution, rooted in cultural and ethical values. An essential tool to reestablish the connection between producers and consumers is tracing or imbuing goods with a history, a dimension often overlooked in large-scale distribution. This history is frequently interwoven with narratives of the ‘local,’ the ‘traditional,’ and the ‘authentic’ (Pratt 2007; Pratt 2008). In this section, I will demonstrate how these values are invoked by exploring the symbolic framework that *ènostra* members utilised.

In November 2021, I attended a virtual meeting of the ‘active members.’ After an almost year-long hiatus, *ènostra* active members convened with Gianluca, Chiara, and Jacopo to discuss the state of their activities. Before the meeting, they were asked to prepare concise presentations detailing the initiatives undertaken since the last gathering. As seen in Chapter 3, active members promoted the cooperative through various means, such as WhatsApp groups, social media campaigns, online and in-person events like information desks, presentations, and collaborative projects, encouraging friends, comrades, and people in the broader social and solidarity economy networks to join. The final speaker in the lineup was Vincenzo, a well-known *ènostra* member recognised for his involvement in numerous initiatives. Vincenzo resided in Noci, a relatively large *comune* (‘municipality’) in the Metropolitan City of Bari, Apulia. He first learned about *ènostra* during the 2019 Friday for Future Global Climate Strike. He was one of the few *ènostra*’s Apulian, where he had been operating individually because the limited regional participation prevented the formation of an *ènostra* local group. In addition to collaborating closely with the REC team (see Chapter 6) in the neighbouring municipality of Santeramo in Colle, Vincenzo also actively promoted *ènostra* within and beyond his activist networks. During the virtual meeting, Vincenzo shared some initiatives he had undertaken for the cooperative. Like other cooperative

members, one of Vincenzo's initial actions was to invite Gianluca to discuss renewable energy and introduce *ènostra* to environmentally committed groups, such as his local environmental association. He continued his efforts to promote renewable energy and *ènostra* in his region. A couple of days after the virtual meeting, Vincenzo was set to host an *ènostra* information desk at a local food store in Matera, Basilicata. In preparation for the event, he composed a message on a chalkboard prominently displayed at the *ènostra*-supplied store. The opening lines of the chalkboard message read, *Se mi chiedi formaggio locale, perché non mi chiedi anche energia locale?* ('If you ask me for local cheese, why don't you also ask for local energy?'). A photograph of this chalkboard message was shared during the virtual event (see Figure 21). The meeting attendees enthusiastically applauded the catchy slogan and the initiative, sharing the image on their social media profiles in the following days. To them, this phrase encapsulated the meaning of becoming a *ènostra* member-user and purchasing electricity from the cooperative. Initially, the analogy between local cheese and energy struck me as somewhat enigmatic. Eventually, I discovered how the analogy served as a tool that *ènostra* active members employed to engage with the ethical sensibilities of potential new member-users.



**Figure 21.** Picture of the chalkboard displayed during a promotional event in Matera.<sup>4</sup>

*Credit: Vincenzo Sansonetti.*

During one of our conversations, I asked Vincenzo to elucidate the connection between local cheese and local energy. His response was straightforward, “Energy comes from the sun, and *caciocavallo* is made from milk. They’re two natural products that meet

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<sup>4</sup> Translation: “If you ask me for local cheese, why don’t you also ask for local energy? ènostra is the first energy cooperative that produces and supplies sustainable, ethical, and 100% renewable energy. Participate in ènostra’s collective installations and consume the energy you produce.”

one another.”<sup>5</sup> Vincenzo’s response was logical and mirrored the perspective of other members I encountered during fieldwork. My interlocutors placed great significance on the idea that individual consumption choices can substantially impact curbing the climate crisis. They firmly believed that the climate crisis stems from human activity’s effect on the Earth and its atmosphere, with the production of heating and electricity from fossil fuels contributing significantly to CO<sub>2</sub> emissions. In their view, a shift to renewables, considered a ‘natural’ power source, was imperative. Yet, the association between ‘natural’ and ‘local’ operated by Vincenzo remained open. As mentioned earlier, *ènostra*’s energy is generated by producers at various latitudes and flows nationally to serve numerous end-users nationwide. Then, how can it be considered ‘local’?

Much research into ethical consumption has been conducted on agro-food systems. Alternative food economies define their characteristics in contrast to the global agro-food industry, which is portrayed as disrupting the connection between production and consumption (Pratt 2007; Pratt et al. 2014; Grasseni 2003; 2012; 2014). They advocate for a reconnection between these scales of local and global. Anthropologist Jeffrey Pratt (2008) contends that this reconnection occurs within a predefined discourse that employs tropes like ‘natural,’ ‘organic,’ ‘local,’ and others, which are used interchangeably or evoke one another indirectly. According to Pratt, the ‘local’ is strategically significant among these tropes because it evokes proximity between production and consumption. In the realm of food systems, the emphasis on the ‘local’ arises from various motivations, such as environmental care (e.g., locally sourced products reduce transportation emissions due to shorter supply chains), the endeavour to build local economies outside the capitalist system, as seen in rural anarchist programs described by Pratt (2003), or the pursuit of higher quality of products associated with a specific location, as observed in ethnographies of

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<sup>5</sup> *Caciocavallo* is the stretched-curd cheese made from cow's or sheep's milk, famously produced throughout Southern Italy.

‘guaranteed’ or ‘protected place of origin’ products (Grasseni 2003). However, the ‘local’ trope operates on more ambiguous grounds in the context of electricity systems. Due to its distinct nature, electricity is less readily associated with a specific place or territory, making it challenging to establish material or symbolic connections. I argue that rather than emphasising a direct relationship between the production and use sites of electricity, *ènostra* members employ the trope of the ‘local’ to appeal to ethical consumers’ responsibilities toward a more socially and ethically responsible economy. These responsibilities are embedded in the economic choices made by end-users. In a way, the ‘local’ can be seen as a distinguishing marker from the “big energy players” who operate as dominant suppliers and are considered ‘central.’ In this sense, *ènostra*’s members seek to diminish the influence of these players by redirecting end-users away from the big players and aligning them with the community enterprise’s efforts to decentralise the electricity economy.

Before drawing on another example to illustrate this point, let me return to electricity to stress its distinct economic features. As I noted earlier in this chapter, electricity is not a singular, stable entity but emerges as a complex interplay of materials, technologies, and concepts, rendering it a multifaceted subject. Gretchen Bakke (2019) posits that the defining feature of electricity is not so much materiality as measure. Drawing inspiration from Lévi-Strauss’s renowned formulation, she argues that measure is what “transforms things that are bad to think with into things that are good to think with” (Bakke 2019: 28). In fact, electricity is synecdochical. Instead of saying ‘a kilowatt-hour of electricity’ (which is technically correct), we only say a ‘kilowatt-hour’ (KWh). Like other electric synecdoches such as volts and amperes, the kilowatt (along with its thousandth part, the watt) represents a novel vocabulary of measurement stemming from the emergence of electricity as a scientific subject. Commensuration is not only a powerful apparatus employed to make sense of electricity; it is precisely what transforms electricity into a commodity. The KWh is the measure utility companies use to sell electricity to their customers. It is obtained by calculating the number of kilowatts of power transferred to or consumed by a user in one hour (Abram

2022a). The KWh is also what enabled my interlocutors to address electricity in their discourses on ethical consumption.

Two of the most industrious members I encountered throughout my fieldwork were Nicolas and Mercedes, both of whom I introduced in Chapter 3. *Gasisti* in their local areas, Nicolas and Mercedes organised numerous *serate informative* (promotional events) for members of solidarity purchase groups, whether from their same region or others, in which they passionately promoted the cooperative and encouraged attendees to join. Since attendees might not be familiar with the electricity system, the two active members often employed an informative sketch to convey their message. “How can I be sure that the KWh of electricity reaching my home is from renewable sources?” they would provocatively ask the audience, hoping to elicit a response as convincing as the question was unsettling. Every power plant producing electricity moves electrons. Electrons are fugitive critters; once they mesh into the grid, they cannot be guided to a desired destination and end up at the nearest point. “Electrons are all the same,” Nicolas would clarify, whether they are produced with renewables or fossil fuels. “What makes the difference is: what am I, as a consumer, buying? What am I financing?” He alluded that while *Enostra* supplies 100% renewable energy, most electricity providers selling renewable energy also rely on fossil fuel or nuclear power, whether directly produced or purchased on the market. For him, it was a matter of ethical consumerism. What kind of economy do end customers finance when buying electricity from a supplier? What kind of world do they want? For Mercedes, these questions resonated with her concerns about corporate social and environmental responsibility. She expressed irritation with phone calls from large energy suppliers’ call centres trying to persuade her to switch to more cost-effective tariffs. “Ma’am, you’re overpaying for your energy. Aren’t you interested in saving some money?” Mercedes mimicked a typical call centre agent. She would respond calmly, “I’m happy with what I pay. My priority is renewable energy.” However, Mercedes would get frustrated if suppliers offered renewable energy tariffs. Echoing Nicolas, she would argue that many energy suppliers now incorporate renewable energy in their offerings.



However, this renewable energy often results from environmental and social exploitation at the expense of local communities. For the two ‘active members,’ choosing *ènostra* instead of a large utility company was a way of exerting their moral judgement on the mainstream electricity market and dissociating their ethical selves from it.

Like other *ènostra* members, Mercedes and Nicholas firmly believed that their concerns should resonate with members of solidarity-based purchase groups. Their advocacy centred on a vision of a world powered by renewable energy, where energy generation is steered by moral considerations prioritising societal and environmental wellbeing. To them, this vision could be translated into “acting through our wallets” by making ethically grounded consumption choices, emphasising the political dimension of ethical consumerism. Scholars contend that ethical consumers can exert political agency, as their consumption choices are market transactions that can potentially catalyse transformative shifts within society and the economy (Micheletti 2003). Similarly, in *ènostra*, some members believed that directing their financial support to the cooperative could help bolster a shift in the electricity economy. They believed that, by supporting *ènostra*’s production of renewable electricity, they could alter the national energy mix in favour of renewables, ultimately benefiting every member of society. As Nicolas argued during a *serata informativa*, merely transitioning to a ‘green tariff’ offered by any electricity provider today does not inherently imply a systemic shift toward renewable energy sources. He contended that most companies lack the incentive to construct new renewable power plants because they already possess a sufficient number of plants or can procure adequate electricity from existing facilities. For Nicolas, these companies do not contribute to creating additional renewable capacity. In contrast, *ènostra*’s goal was to establish a significant number of renewable power plants capable of supplying all its members with renewable energy while increasing the share of renewables fed into the national electricity market. Given the structure of the Italian electricity market, where fossil fuels significantly influence the prices end-users pay for electricity, my interlocutors believed that increasing the share

of renewables would allow them to impact the pricing of this essential commodity.

The type of moral subjects active members like Mercedes and Nicolas called upon to join *ènostra's* project evoked the 'citizen-consumer' described by James Carrier (2012). Carrier defines people who practice ethical consumerism as 'citizen-consumers' because, in their attempt to achieve a more socialised economy, they operate in two realms: the public (citizen) and the private (consumer). He contends that 'citizen-consumers' leverage their market transactions to convey their values to shop owners, wholesalers, and manufacturers, shouldering the responsibility for the societal and economic changes their actions can bring about. *ènostra's* active members appealed to the ethical sensibilities of individuals they believed held the same values. They invoked their responsibility to generate change by embracing the project of *ènostra* to "break free from the market" and become 'self-producers' of their own electricity, thus disengaging from a mainstream economic system they perceived as wrong. In the next section, I discuss *ènostra's* notion of the prosumer to show how the disengagement from the market takes on specific economic features.

#### Becoming a prosumer: The moral economy of financing *ènostra*

It was an autumn afternoon in Milan. I had just arrived in the city on a fast train from Rome, planning to meet Chiara at the Patagonia store on Corso Garibaldi, at the very heart of the city. Upon entering the store, I navigated through the corridor and approached the counter, where three clerks were stationed. I informed them that I was there to meet the *ènostra* staff, and one of the gentlemen promptly directed me to follow him. I found a concealed staircase behind a brick wall, characteristic of the store's Scandinavian design. We took the stairs together and arrived in a room where I finally met Chiara and her colleague, Fabiana. They sat at a sturdy wooden table against a wide industrial-style window, offering a captivating view of the shop's central aisle. To their right, cardboard cut-outs adorned the wall, featuring images of a northern pike, clouds, a pine tree, and a female farmer. These cardboard cut-outs also

displayed inspiring slogans reminiscent of environmental and fair trade ideals, such as “Protect biodiversity,” “Defend wilderness,” and “Support local producers” (Figure 22).



**Figure 22.** Room inside the Milan Patagonia store.

*Credit: Author.*

In 2021, the American clothing company Patagonia, renowned for its environmental advocacy, launched a promotional campaign to support renewable energy community initiatives across Europe.<sup>6</sup> ènostra was chosen as the Italian partner for the campaign, which, according to ènostra’s press release, aimed to:

[...] encourage citizens to choose an energy community as their electricity provider, to join or invest in a group, thereby promoting job creation, community growth, and supporting residents living in energy poverty, or to establish a new energy community—an energy revolution with positive impacts on both people and the planet (ènostra 2021: n.p.).

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<sup>6</sup> Some of the initiatives feature in the company-produced short film *We the Power*, directed by David Garrett (Byars 2021).

Patagonia endorsed *ènostra* through various promotional initiatives as part of the collaboration. Among these was providing an upper-level space within Patagonia's Milan store, which *ènostra* utilised for several days to set up an information desk. Chiara and Fabiana took the helm on that particular day, ready to engage with the store's customers. Promotional flyers from *ènostra*, meticulously designed to convey the essence of the cooperative, were neatly laid out on the table. The two *ènostra* workers hoped that Patagonia's customers would take a moment to learn about *ènostra* and, perhaps, consider switching to an environmentally responsible electricity contract. To Chiara and Fabiana's disappointment, the day passed without a customer showing interest in the cooperative's cause. The following day, I again joined Chiara at the Patagonia store, accompanied by Piergiorgio. They had better luck this time, as several Patagonia staff members decided to switch to *ènostra*. In the middle of the afternoon, Bernardo, an outdoorsy Milanese man, approached the information desk. Unlike previous customers, who had unquestioningly embraced switching to *ènostra* as "the right thing to do," Bernardo showed more curiosity. Upon admitting his lack of knowledge of energy systems, he inquired about *ènostra*'s energy generation, asking what the plants consisted of in practice. "It can be photovoltaics," Chiara answered. "So, you mean solar panels?" Bernardo counter-replied before Chiara could continue to say that it could also be wind plants. Visibly puzzled, Bernardo rephrased his query, seeking clarification, "I just wanted to know whether the energy is generated in households or at dedicated facilities." Chiara elaborated on the nature of *ènostra*'s energy production, highlighting that some of *ènostra*'s plants were owned by third parties (i.e., member-producers), who *cedono* (lit. 'give up') to the cooperative the excess electricity that they did not use themselves. In turn, Chiara clarified that *ènostra* would sell it back to its member-users across Italy. "Because the plant is located in a given region, but families all around Italy benefit from it." This, Chiara explained, was the essence of the complex situation. Piergiorgio chimed in, shedding light on the intricacies of the process. He mentioned that *ènostra* had to purchase the energy produced by its wind turbines from the grid because no direct physical connection

linked consumers directly to the energy source. As he pondered establishing a “direct wire,” Piergiorgio’s explanation seemed to spark an idea in Bernardo’s mind.

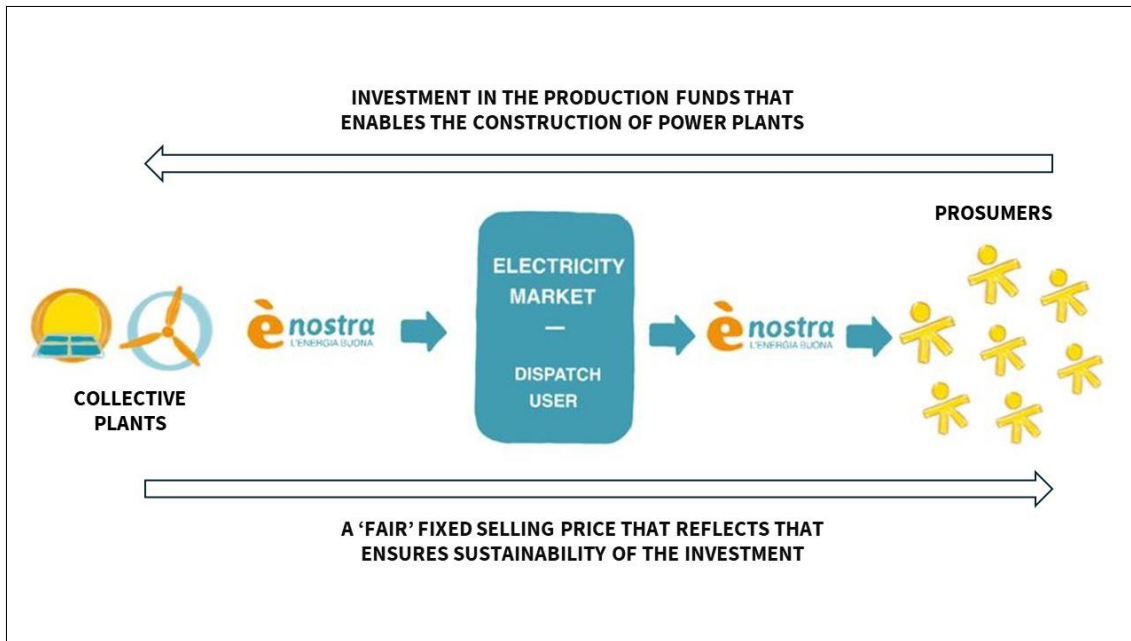
That’s what I’m saying... If there were an alternative to the public grid, it would remind me of the coffee supply chain, right? Coffee is produced there, and often it’s not processed there, but it has to be taken somewhere else because, for you to drink it at the café for one euro, many people need to make a profit, so they don’t want those who cultivate it to have the opportunity to process it. The entire supply chain and the economic system would collapse at that point. There would be fewer people managing the whole thing.

Using a clever food analogy, Bernardo subtly pointed out what some recognise as one of the most significant challenges of alternative economies: cutting out the middle person (Counihan 2019; O’Hare 2022). The middle person is an economic actor who, often as a dealer, agent, or company, operates as an intermediary between producers and consumers, hindering their direct reconnection. Cooperatives are part of what Karl Polanyi (2001 [1944]) famously described as a double movement of capitalist expansion and popular protection from the market. As previously highlighted, *ènostra*’s entanglements with the market meant its members could only be partially shielded from the market. To solve this enigma, Bernardo mused about the possibility of an alternative to the existing grid, contesting, “After all, you’re [*ènostra*] producing energy, selling it, and buying it back.” Seated across from Bernardo, Piergiorgio swiftly clarified that, in their case, an intermediary was necessary due to the intricacies of the electricity system.

Jumping back in the discussion, Chiara exuded confidence and assured Bernardo that, in the future, *ènostra* would “break free” from the constraints of market dynamics. She pointed out the current impossibility of this endeavour, as the cooperative’s generation capacity fell short of meeting its members’ electricity demands, necessitating purchases from the market. Chiara emphasised that *ènostra*’s ability to

generate sufficient electricity hinged on the implementation of additional renewable plants, for which members were encouraged to invest. Despite Chiara's optimism, "breaking free" from market dynamics cannot be easily achieved within highly structured economic sectors such as electricity. While *ènostra* could potentially achieve this by eliminating the middle person and taking on the role of its energy trader or dispatch user, Giacomo, the engineer leading the marketing and sales team encountered in Chapter 3, pointed out the practical limitations. The cooperative, he noted, remained too small and economically fragile to afford such an ambitious transition. Instead, the vision of market disruption at *ènostra* appeared to revolve around a unique form of economic exchange between the cooperative and its members, grounded in a distinctive moral economy.

During the launch of *Libertà è autoproduzione* campaign, which coincided with the unveiling of the wind turbine in Gubbio, *ènostra* introduced the *Tariffa Prosumer* ('Prosumer Tariff'). The Prosumer Tariff was a special tariff designed for members who invested in the *Fondi produzione* ('Production funds'). These production funds represented capital pools that *ènostra* periodically opened for its members to support the ongoing expansion of its energy generation capacity. Members could contribute additional funds (i.e., beyond their membership fee) to finance the construction or acquisition of new renewable power plants. *ènostra*'s ultimate goal was to eliminate the need to purchase electricity from external sources. This approach would enable the cooperative to offer stable tariffs unaffected by the fluctuations in electricity prices, which are heavily dependent on fossil fuels, as demonstrated previously. The "Prosumer Tariff" exemplifies one facet of this economic exchange. It guaranteed a fixed price for electricity to member-users who invested in the cooperative (see Figure 23 for a visual representation of the tariff's mechanism). By promoting this initiative, *ènostra* aimed to encourage more members to invest in its Production funds, thereby making substantial funds available for the continued development of its power plants.



**Figure 23.** Revisitation of an illustration of the Prosumer Tariff made by the ènostra sales and marketing team. The illustration represents the transactions between ènostra and the ‘prosumers.’

*Credit: Eleonora Gagliardi.*

Like her fellow directors, Sara hoped the cooperative could enable each member-user to become a ‘self-producer.’ Practically, Sara’s aspiration was that, eventually, every member could directly access electricity generated by the power plant they supported through their investments. As the tariff’s advertising campaign articulated, this vision entailed allowing each member to “become a Prosumer.” As highlighted earlier, prosumers are often associated with a desire to gradually disengage from conventional market dynamics through self-reliance practices that seek to circumvent capitalist market relationships. ènostra’s interpretation of the prosumer emerged as a variation of this trend, where ambitions to disengage with the market were pursued through a cooperative effort. This cooperative effort forged a moral economy intended as, following James Carrier (2018), the relationships and mutual obligations that emerge from and motivate economic transactions among groups and individuals. For Carrier, what defines a moral economy are not the values that are the context of economic activity but those that arise from the economic activity itself. Carrier’s

definition provides a base for exploring how a ‘moral economy’ was substantiated by the reciprocal obligations between the cooperative and the members who financed the collective plants, as I will detail in the following paragraphs.

For members who wished to “become prosumers,” a minimum investment of €500 in the cooperative’s Production funds was required. Additionally, they had to request to switch to the Prosumer Tariff, as this transition was not automatically applied to financing members, and some may not be interested in it. Some members who “became prosumers” claimed that ethical motives rather than economic ones drove their decision to invest in the Production Funds. ènostra’s Production Funds operated on a 10 to 15-year basis, which meant that financing members who did not wish to renew their investments could withdraw their capital and potential turnover at the fund’s closure. The turnover was set at a minimum of 2% based on the cooperative’s disposable income, ensuring its economic sustainability (see Chapter 2). Financing members like Nicolas did not view this payback as the primary motivation for their investment. However, the Prosumer Tariff did offer economic benefits to its subscribers. ènostra prosumers enjoyed a fixed-price tariff for the electricity they purchased from the cooperative. This fixed price represented a virtual link between the electricity generated by the power plant funded through the Production Fund and the specific customers who invested in it. In other words, the economic agreement between ènostra and its prosumers established a virtual connection with the financed power plant. The virtual connection with the plant is critical in understanding how the moral economy of the prosumer tariff took shape. Actual electricity transfers still occurred within the infrastructure, as described earlier. The infrastructure was crucial to ènostra, as, to Bernardo’s disappointment, the cooperative saw no alternatives. Consequently, ènostra’s prosumers remained technically connected to the grid, and the electricity they received from the cooperative still traversed the intricate techno-economic system outlined above. However, the ènostra sales team “virtually isolated” the electricity from the plants financed by ènostra prosumers from the rest of the electricity handled by the cooperative. This arrangement implied that, upon



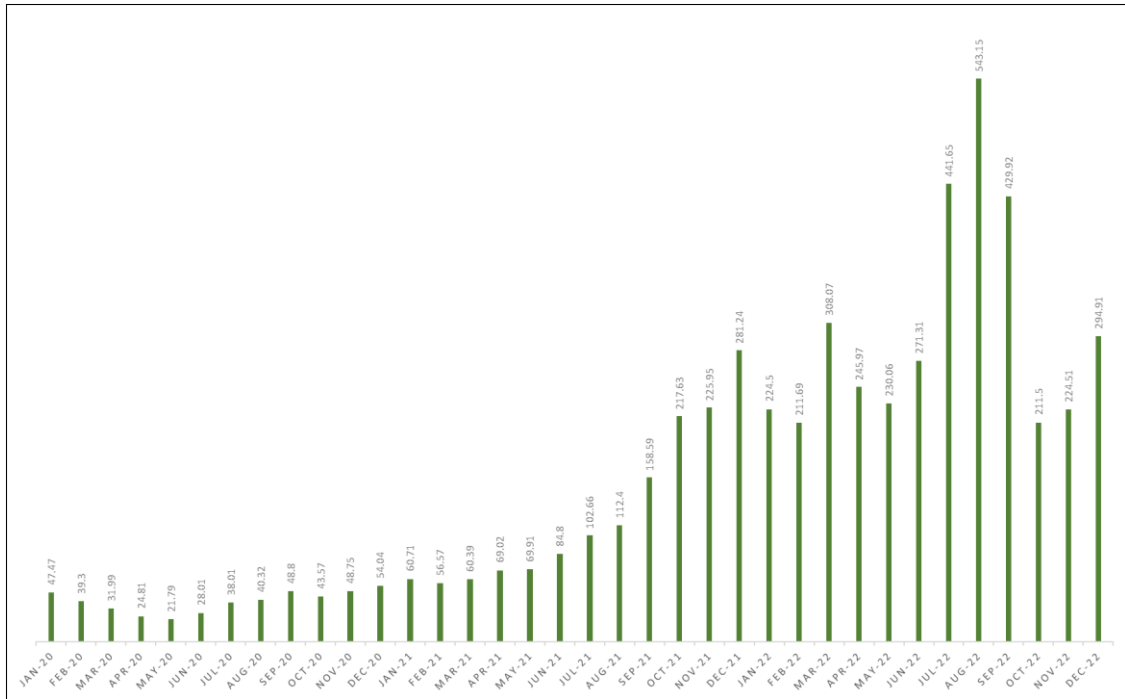
financially supporting the construction of a given power plant, a prosumer would virtually receive electricity from that plant. As Piergiorgio carefully emphasised, “It’s a virtual exchange. Electricity doesn’t physically flow from the plant to a member’s home; the electrons generated at a specific moment don’t actually enter a member’s home.” Instead, electricity was virtually isolated through economic calculations, which allowed the ènostra sales team to estimate a fixed price for that specific quantity of energy as though it were immune to market influences (including those of fossil fuels). Under this agreement, ènostra could offer electricity at a fixed price detached from the volatility of market prices without jeopardising its economic sustainability. The ènostra marketing and sales team would estimate a plant’s potential output and, consequently, set a fixed price for prosumers based on the scope of their investment. Piergiorgio explained, “We know that the average Italian end-user consumes around 2,000 KWh from the grid. Thus, we use this data in conjunction with our generation capacity to calculate a price that ensures the sustainability of this exchange.” In simpler terms, as he conveyed, “Individuals can’t directly purchase electricity from a plant of their choice. Instead, the plant sells electricity to the dispatch user, following the market’s regulations. In theory, we operate this way because members pool an initial capital. With the available incentives, we can determine and establish a fixed price.”

These economic arrangements underpinned what I call, following Carrier (2012), the moral economy of ènostra ‘prosumers.’ By investing in the cooperative’s renewable energy Production funds, prosumers engaged in mutual economic obligations with ènostra. On the one hand, prosumers financially contributed to expanding the cooperative’s electricity production, which aligned with the aspiration of disentailing ènostra’s electricity from the mainstream electricity market. On the other end, ènostra reciprocated the economic effort of the prosumers by offering a fixed price, which rewarded them for their commitment to the cooperative’s objective. Unlike the rest of ènostra’s member-users, the prosumers achieved tangible freedom from the market through an economic arrangement that shielded them from fluctuating prices. In the

following section, I will discuss how market dynamics can shake the economic scaffolding of this moral economy and reveal its fragility.

### 2021: An Electricity Market Odyssey

In 2021, like most countries, Italy was gripped by an exponential surge in energy costs, widely attributed to Russia's short-term political control over Europe's gas supplies. This global upsurge in energy prices was swiftly acknowledged as an 'energy crisis' (Abram 2022b; Field 2021; 2022), which had profound implications for individuals, households, businesses, and institutions, impacting every sector of society. My expert interlocutors and many observers recognised that this surge in energy prices was not only unprecedented. It was also of such bewildering rapidity and immense scale that, as poignantly noted by Simone Abram (2022b), it dramatically increased the number of people unable to meet their basic needs. Within *ènostra*, concerns regarding the energy crisis grew more pronounced between 2021 and 2022 as the escalating electricity price affected numerous members. By July 2022, the PUN (single national price) had surged to approximately €440 per MWh, more than doubling the PUN from the first quarter of that year. To provide some context, before the energy crisis, it had consistently remained below €100 per MWh (Figure 24). In August 2022, the PUN peaked at almost €550 per MWh. Many cooperative members on variable tariffs saw their energy bills skyrocket in just over a year, mirroring the experiences of most other end-users with variable tariffs. In one of his candid remarks, Giacomo bluntly articulated the gravity of the situation, saying, "We're dealing with a situation that has become unmanageable for families and businesses. And when they can't manage it, families can't afford to pay, and businesses are forced to shut down," This unforeseen and unparalleled energy price surge deeply troubled the engineer, who was concerned not only about its impact on end-users but also its potential implications for *ènostra* itself.



**Figure 24.** Histogram of Italy’s Single National Price monthly evolution 2020-2022.

*Credit:* Author (data sourced from <https://mercatoelettrico.org>).

Giacomo and other *ènostra* workers were deeply concerned about the potential negative impacts on the cooperative’s financial stability. There were growing apprehensions among *ènostra* workers that member-users might opt to leave *ènostra* in search of more affordable tariffs from other providers. As 2021 and 2022 progressed, complaints regarding rising energy costs increasingly inundated the cooperative’s customer support team. I observed numerous instances where switchboard operators had to manage distressing phone calls from members confronted with exorbitant energy bills. “What are you doing to address these prices, huh? You’re no different from any other [energy supplier]!” member-users would angrily say. *ènostra* had limited means to counter the price inflation affecting many of its members-users, apart from establishing a deferred payment scheme for those in the most vulnerable positions. The cooperative’s tariff scheme was founded on a select range of pricing solutions, with the most common being the standard single-rate and two-rate time-of-day tariffs, built on the foundation of the PUN, representing the average price established on the

electricity market.<sup>7</sup> Generally, ènostra's basic tariffs would cost slightly more monthly than those offered on the *servizio di maggior tutela*. In one of its most famous campaigns, the cooperative promoted joining as “the cost of one less cappuccino per month,” alluding that its monthly tariffs were €1-€1.50 higher than those of the protected market. In essence, ènostra procured energy from the electricity market and supplied it to member-users at the same (variable) price, along with a small additional amount to cover organisational expenses. Gianluca said ènostra could grow through this tariff system without incurring substantial economic losses. Only later did ènostra introduce a fixed price arrangement like the ‘Prosumer Tariff.’

Amid the energy crisis, in January 2022, the Italian Parliament passed Decree No. 4/2022, known as the *Decreto Sostegni-ter*. This legislation encompassed a range of measures to mitigate the repercussions of rising electricity costs. One of these measures, outlined in Article 16, introduced a two-way compensation mechanism concerning the price of electricity generated by renewable energy-powered plants, intending to recoup any excess profits earned by electricity producers during 2022 (Gazzetta Ufficiale 2022). Article 16 mandated that producers return profits exceeding their 2020 average earnings to the state. Commentators and proponents of renewable energy raised objections to this measure, asserting that it “discriminated against renewable energy producers” and posed the risk of creating “market distortions that undermine investors’ trust and hinder the energy transition” (La Nuova Ecologia 2022: n.p.). ènostra responded to this measure with an open letter addressed to the then-Prime Minister Mario Draghi, as the law significantly impacted its power generation portfolio (ènostra 2022). Because a substantial portion of the profits generated by the cooperative’s renewable plants had to be returned to the state, ènostra found its capacity to offer fairer tariffs to its prosumers compromised. Gianluca once conveyed to a member during an online meeting I attended,

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<sup>7</sup> In addition to these two primary tariffs, ènostra offered a variety of slightly discounted tariffs tailored to energy-efficient homes, condominiums, businesses, third-sector organisations, and individuals or organisations affiliated with partner entities such as Banca Etica.

We must give €100,000 to the State, which we'd have otherwise used to discount the Prosumer Tariff. Say that there are a thousand prosumers... we're talking about €100 each that, instead of going to you [...], go to the State.

Consequently, *ènostra* had to suspend applications for the Prosumer Tariff for approximately half a year, preventing additional members from “becoming prosumers” and enjoying the reduced tariff. The January 2022 decree added another layer of complexity to a system already weakened by the energy crisis. By November 2021, the Prosumer Tariff had been hovering around €60/MWh, roughly a third of the single national price, but discussions were already circulating among *ènostra* works about the necessity of its suspension. If *ènostra* could not generate sufficient electricity to fulfil prosumers' needs with its own plants, it would have been forced to purchase electricity from the market at three times the price it was selling it for. The Decreto Sostegni-ter further exacerbated the fissures in the moral economy of the Prosumer Tariff, causing *ènostra* to fall short of many members' expectations to join the cooperative and achieve its statutory objective of providing economic benefits to them.

What Gianluca described as an “electricity market odyssey,” echoing Stanley Kubrick's famous epic science fiction film, resulted in a relatively small group of prosumers finding themselves in a favourable position. In time, those fortunate enough to have subscribed to the Prosumer Tariff enjoyed significantly lower electricity prices than the rest of the member-users who could not do so. This setback had a demoralising impact on many member-users. On the one hand, the influence of fluctuations in the electricity market on the variable tariff unveiled the paradoxes of operating within a market framework. Many member-users expressed discontent over the higher energy

bills driven by fossil fuels despite ènostra's identity as a renewable cooperative.<sup>8</sup> On the other hand, the Prosumer Tariff, a mechanism supposed to enhance the cooperative's mutualistic approach, created a rift between a few lucky members and a conspicuous number of members negatively impacted by market dynamics. Some began questioning the individualistic nature of the Prosumer Tariff, highlighting that only those with the financial means to invest could reap the benefits of reduced prices. For example, Nicolas contemplated whether a model in which all members could benefit from the investments of a few wealthier members would better embody a mutualistic approach. During a meeting, the idea of an informal mutualistic mechanism was suggested, through which prosumers could share some of their benefits with the most vulnerable members within ènostra, but this proposal was not pursued during the time of fieldwork. Eventually, ènostra reintroduced the Prosumer Tariff with a progressive mechanism in which the amount of electricity members could obtain at a fixed price was proportionate to their investment (e.g., €500 investment equated to 2,000KWh at a fixed price), managing to bring more members-users on board.<sup>9</sup>

## Conclusion

Some anthropologists have noted that, in alternative economies, the moral constructs that economic actors mobilise often undergo an imperfect translation into action, opening up pathways and transformations that were not initially anticipated (De Neve et al. 2008). In this chapter, I have shown that economic actors not only use moral constructs to reshape market dynamics but also that these moral constructs can emerge from the very market dynamics these actors aim to transform. ènostra's

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<sup>8</sup> Despite endeavours to untangle the intricate market dynamics, including the live-streaming of a webinar in March 2022 to elucidate the gas crisis, numerous member-users continued to voice their grievances.

<sup>9</sup> Investments could range from a minimum of €500 to a maximum of €7,000, with increments of €500. Note that the proportions provided here are illustrative and do not correspond to those employed by ènostra.

directors maintained an optimistic outlook that prosumers would come to terms with an increased energy rate while simultaneously recognising the potential for some member-users to leave the cooperative. This optimism was fueled by the growing number of end-users switching to ènostra, culminating in the milestone of 10,000 members (see Chapter 2), and by the influx of capital into the cooperative's Production funds through the investments of the 'prosumers.' As one BoD member cynically said, "This is what breaking away from fossil fuels takes, for better or for worse."

James Carrier and Richard Wilk (2012) emphasise that consumers may encounter disillusionment in their efforts to 'ethicise' the economy. Some may opt for alternative means, such as viewing government action as more suitable than individual market choices, while others may even abandon their ethical practices. Ethical consumers might also turn inward, relinquishing their desire to address global issues and focusing instead on a morally-centred private life. Often, the latter scenario aligns with the trajectory of many prosumers who, by incorporating production into the domestic sphere, reduce their ability to participate in society as 'citizen-consumers' to some extent (Kosnik 2018). As highlighted earlier, the deliberate decision to minimise interactions with the market economy constrains their opportunities to engage with the broader society.

ènostra's ethical consumers and prosumers emerge as market actors who participate in societal change materialise through their economic choices. These economic choices emerge along a continuum, ranging from selecting ènostra as an energy provider to investing in its power generation portfolio. Through their economic engagements with ènostra, ethical consumers and prosumers exert their moral judgment on the electricity economy while trying to transform it. In this context, self-production does not signify a retreat to the private sphere but indicates an outward turn toward a communal dimension. Instead of withdrawing from market dynamics, they actively engaged with them but in a manner that exposed them to these dynamics differently.

In this chapter, I have demonstrated how ènostra members' ethical engagements with the cooperative unfold within the broader context of the national electricity market. As ènostra strove to establish an alternative model to that of large utility companies, it grappled with balancing the ambition to provide the same benefits to all members with the necessity to navigate market forces. These findings reinforced my argument that striving for the 'good' was closely tied to the complexities of reconciling ethical aspirations with the practical demands of the market. In the next chapter, I will bring this argument forward by discussing how multiple ethical aspirations arise at the intersection of organisational and personal views of sustainability.



## Chapter 5:

# Unveiling the Good Energy

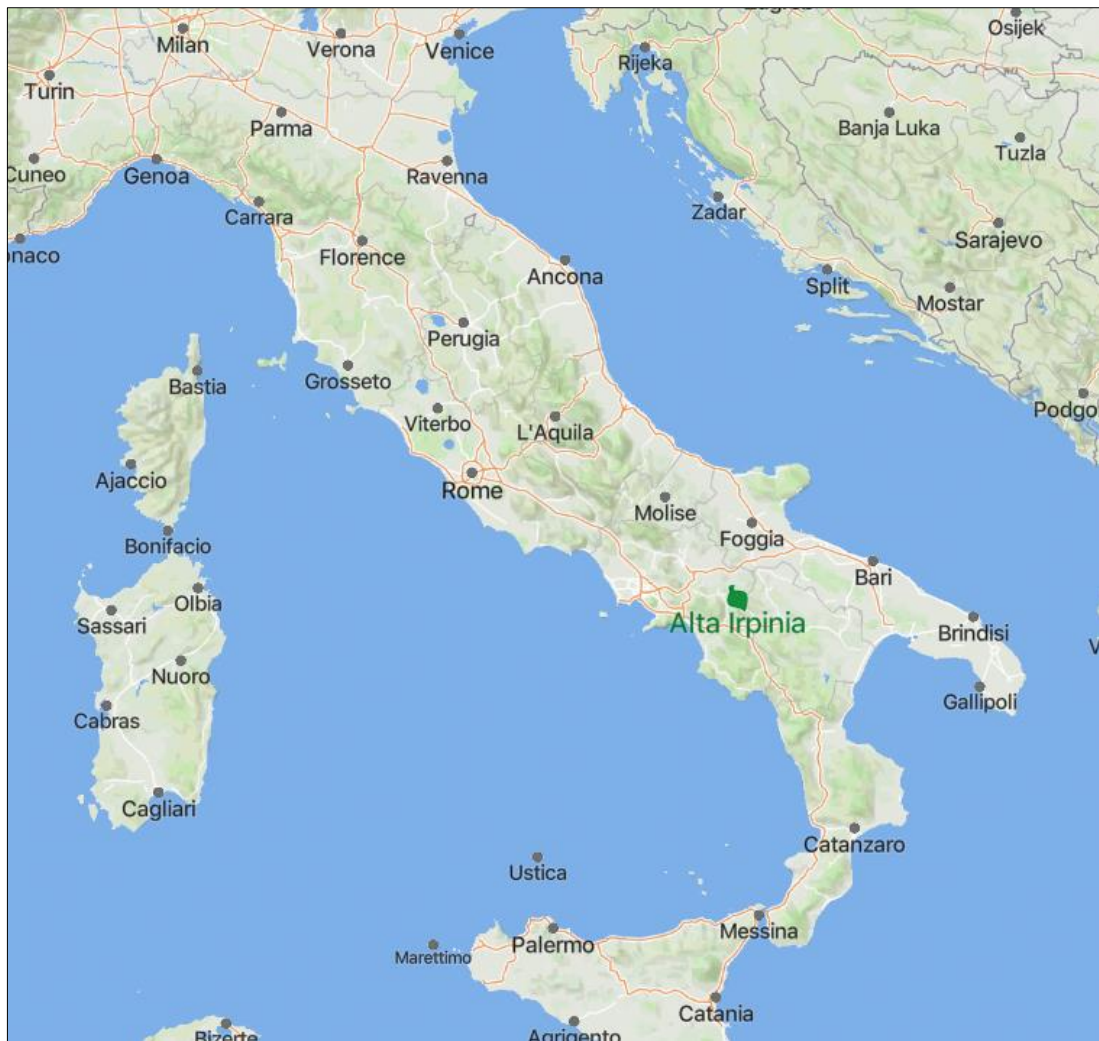
### Introduction

During the launch of the *Libertà è autoproduzione* campaign, which I introduced in the previous chapter, è nostra President Sara Capuzzo invited Michele, an activist from Southern Italy, to share his experiences of opposition to large-scale wind power development.

From 1992 to 2007, 170 wind turbines were hastily built in my town. They call them *parchi* ['parks']. I am the son of farmers, and *parchi* are where cows and sheep graze. They twisted the term - now they talk about *parchi eolici* ['wind parks']. I want to tell you what happened to us and what might still happen. In Southern Italy, 10,000 *pale eoliche* ['wind mills'] have been built, each costing between €1-3million varying according to their power, location, and so on. This money results from *accaparramento di suolo* ['land-grabbing']!

In expressing these sentiments, Michele condemned the rapid increase of wind turbines that had dramatically altered the scenic landscape of his hometown. Michele hailed from Bisaccia, a town in Alta Irpinia, a geographical and cultural region of Southern Italy, covering an area roughly equivalent to the present-day province of Avellino, Campania (Figure 25). The landscape of Alta Irpinia, characterised by rolling hills, lush valleys, and charming villages dotting the hillsides, has been drastically altered since 1992. During this period, Bisaccia and its surrounding areas in Alta Irpinia have become the stage for extensive land acquisition for wind power development. Vast hectares of arable land have been allocated to establishing wind power stations, referred to in international engineering terminology as 'wind farms.' The region's

countryside, adorned with olive groves, vineyards, and dense forests, now contends with the imposing presence of interconnected wind turbines, fundamentally reshaping the tranquil and idyllic setting that once captivated residents and visitors alike for its scenic allure. The meandering courses of rivers and streams that once contributed to the natural beauty of Alta Irpinia are now juxtaposed with the industrial footprint of these wind power developments (see Figure 26).



**Figure 25.** Map of Italy. The region of Alta Irpinia is highlighted in green.

*Credit: Mapcarta.*



**Figure 26.** Parco eolico in Bisaccia.

*Credit:* Giuseppe Zicola.

In Italian, the term commonly used for wind farms is *parchi eolici*, translated as ‘wind parks,’ a choice of terminology that Michele found ambiguous. He argued that the term ‘parks’ implies spaces designated for activities like grazing, which plays a crucial role in the livelihoods of local farmers. Michele was among the first residents to advocate for forming a *Comitato contro l’Eolico Selvaggio* (‘Committee Against Wild Wind Energy,’ CAWWE hereafter). Referred to as “wild wind,” this specific and extensive wind power development has faced significant local opposition from associations and individuals who consider it entirely “unsustainable” (IAEJ 2019). Southern Italy is a major contributor to the country’s wind energy production, with a significant portion generated in the Southern Apennines, spanning three regions: Apulia, Basilicata, and Campania (which includes the area around Bisaccia). Approximately 37% of Italy’s installed wind Megawatt peak (MWp) capacity is concentrated in this region. Critics of “wild wind” argue that it aligns with a capitalist logic of value extraction, benefiting

large companies at the expense of local communities. They contend that this logic has been fostered by a feed-in tariff mechanism that facilitates investments primarily by “those who have the capital” (i.e., corporate giants) rather than residents (Marmo 2020). Public incentives, coupled with authorisation procedures lacking citizen participation and minimal local benefits such as royalties, employment opportunities, and environmental compensation payments, have led to extensive corporate activities in rural areas, even those with less favourable wind conditions (Dechézelle & Scotti 2022).

I was engrossed in a conversation over the phone with Sara Capuzzo when I initially encountered the story of Michele and the CAWWE in the Southern Apennines. The President of *ènostra* recounted a pivotal moment from a few years back when she was on a business trip to Apulia, assessing the feasibility of a collectively-financed wind plant akin to the wind turbine *Il Cerrone*. During this trip, Sara came across a CAWWE meeting in Foggia, a city near the prospective turbine site, and decided to attend. “I wanted to understand the motivations of these people who were vehemently opposing wind energy,” Sara recounted. After the meeting, she cautiously approached a moustached man, later identified as Michele, to introduce *ènostra* and propose the concept of a collective wind plant. “I was apprehensive; I thought he might strongly oppose it, given what wind energy represented to most attendees,” she admitted. Sara feared that suggesting another wind turbine could exacerbate tensions. However, much to her relief, Michele responded positively to the idea. For him, a cooperative approach to renewable energy development meant an alternative to the capitalist exploitation of renewables. It was a way to demonstrate how renewable energy could be *buona* (‘good’).

During the event where Michele was invited to speak, Sara addressed the audience of *ènostra* members with the following words: “As many of you know, renewable plants are not all good. Renewable energy must also be *etica e sostenibile* [‘ethical and sustainable’].” In those words, Sara acknowledged the potential drawbacks of

renewable energy, emphasising a nuanced understanding of renewable energy that goes beyond mere generation capacity to encompass considerations of ethics and sustainability. Sara's speech served as a clarion call to differentiate ènostra from conventional large-scale energy development projects, conveying the cooperative's ethos of being attentive to renewable energy's environmental and social impacts. In the context of ènostra, the adjectives *etica* and *sostenibile* were frequently intertwined. These terms were omnipresent within the cooperative, evident in the slogan accompanying the cooperative's logo, various advertisements and merchandising products, and were commonly highlighted in public speeches (Figure 27).



**Figure 27.** Wooden tokens presented by ènostra to members featuring the engraved phrase: 'We only use 100% renewable, ethical, sustainable energy here.'

*Credit:* ènostra Whatsapp group chat.

In the previous chapter, I demonstrated how notions of ethical consumerism and prosumerism are shaped by the relationships cultivated by ènostra with its members-

customers and how market dynamics, in turn, influence these. In this chapter, I explore how preoccupations with ethics and sustainability come into being and are articulated at various levels, ranging from collective and individual visions and sensibilities to formalised principles. Such preoccupations emerge in connection with renewable energy technologies and infrastructures, reshaped by mounting concerns about the climate crisis and the urgency to speed up the energy transition. Here, I elaborate on the discussion around ethical consumerism to delve deeper into the implications of ethics and sustainability for the cooperative's renewable energy development operations. The focus shifts towards understanding how *ènostra* workers' and members' conceptualisations of ethics and sustainability originate from the inclinations of *ènostra*'s founders and early members. As these principles progress into a structured and collectively shared framework guiding the cooperative's operations, I will show how moral considerations emerge as 'informal' visions, occasionally diverging from the cooperative framework. The ongoing climate emergency has heightened moral concerns, prompting the cooperative to reevaluate its framework. The discussion sheds light on the complexities of harmonising organisational approaches to ethics and sustainability with individual moral stances. Thus, this chapter develops the thesis's overall argument that, in *ènostra*, pursuing the 'good' unfolds as a process where multiple ethical ambitions emerge contingently with the economic context that the cooperative seeks to navigate.

## Exploring the intersection of sustainability and ethics

It was early morning during the onset of the Scottish spring in 2022. As I filled a glass with water, I awaited Marco's appearance on my laptop screen. His face was already familiar, having been featured in various social media advertisements by the cooperative. I was eager to interview him, especially since I had not been able to do so in Gubbio. Marco, who referred to himself as one of the *pionieri* ('pioneers'), had joined the cooperative in 2015, even before it could supply electricity to its members. Marco appeared on the screen. "So, how did your journey with *ènostra* begin?" I inquired.

Marco, based in the North Eastern city of Padua, had a longstanding involvement in social and solidarity economy initiatives and supported the establishment of the initial local fair trade shops. He was also a member of Banca Etica, the financial institution described in Chapter 2. Marco proudly recalled the bank's founding in Padua, conveniently located opposite the fair trade shop. "You know, Banca Etica's motto is *L'interesse più alto è quello di tutti* ['The highest interest is that of us all']," he emphasised, explaining that being mindful of and attuned to the common good, it was an obvious decision for him to join the bank as a member. Like many other *ènostra* members, Marco's connection with Banca Etica influenced his decision to choose the energy cooperative as his and his family's supplier. During our conversation, Marco shared that the 1986 Chornobyl nuclear disaster sparked his environmental and sustainability concerns. Contemplating how energy was produced and utilised, he found himself questioning what actions he could take. Given that, at the time, the energy market was still a state monopoly, Marco recognised the limited impact individuals could have. However, when Italy liberalised its energy market in the late 1990s, Marco actively sought ways to become a more ethical electricity consumer. For him, as with the *ènostra* members encountered in Chapter 4, this pursuit involved seeking a "100% renewable energy supplier," a quest that gained urgency amid escalating global worries about the impact of fossil fuels on climate change. After a few years with another "100% renewable energy supplier," Banca Etica introduced him to *ènostra*, portraying it as a cooperative that, in his words, "not only sells 100% renewable energy but also energy produced ethically and sustainably." Marco underscored that *ènostra* was a perfect fit, as he valued the significance of transitioning to renewable energy and "doing good for the environment and the people."

Sustainability as a concept addressing crucial challenges in our global present and future is often viewed as nebulous yet remarkably influential. Henrietta Moore aptly describes it as "the organising principle of many areas of contemporary life" (Moore 2017: 68). The term itself can be traced back to an 18<sup>th</sup>-century German document that

criticised the excessive use of wood in fueling the mining industry, leading to the depletion of Saxonian forests.<sup>1</sup> This criticism resonated with the intellectual milieu fostered by the Enlightenment, which advocated for the rational management of natural resources. Cartesian beliefs asserting the right of humans to dominate nature fuelled a managerial approach towards nature, a perspective that thrived during the 19<sup>th</sup> century's growing interest in natural history and the commercial extraction of specific species, characteristic of Victorian Great Britain (Brightman & Lewis 2017). However, not until the late 20<sup>th</sup> century did the term 'sustainability' begin to be employed in its contemporary political and economic sense. In 1987, the Brundtland Report, a document issued by the World Commission on Environment and Development (WCED), notably introduced the concept of sustainable development, articulating the idea that societies should fulfil present financial needs without jeopardising the ability of future generations to meet their own requirements (Brundtland Commission 1987). The 1992 United Nations Rio Declaration and the 2015 Sustainable Development Goals solidified its institutionalisation. However, as pointed out by various scholars, this institutionalisation has often remained influenced by the imperative of economic growth (Escobar 1995; Gómez-Baggethun 2019; Latouche 2009). In essence, sustainability has become a central component in the language employed by corporate, governmental, and non-governmental organisations to advocate for their development initiatives.

In Chapter 4, I emphasised how ethical consumers frequently navigate discursive fields shaped by tropes like 'natural,' 'organic,' and 'local.' Ethical consumers may assert a reconnection between production and consumption through these tropes. A comparable pattern emerges on the producers' end. Corporations have progressively turned to buzzwords conveying widely embraced values that are challenging to oppose. Among these buzzwords, 'sustainability' holds a distinctive status.

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<sup>1</sup> *Sylvicultura oeconomica*, or "A guide to the cultivation of native trees" (1713), by Hans Carl von Carlowitz.



Environmental values promoted by sustainability are increasingly acknowledged as foundational by ethical consumers (Carrier 2010). However, claims made in the name of sustainability are not always universally accepted. Stuart Kirsch describes sustainability as a “strategically deployable shifter” (Kirsch 2016: 91) to underscore how the concept may be employed in varying ways based on the user, the target audience, and the intended goal. Shifters are notably potent because they are words lacking a standardised meaning, allowing their definitions to fluctuate depending on the specific context in which they are employed. For example, concerning the mining industry, Kirsch (2010) argues that sustainability primarily revolves around economic variables, and environmentally destructive activities are perceived as remaining viable as a business. Particularly in the mining industry, companies have prioritised economic sustainability, often poignantly dubbed “the business of staying in business” (Doane & MacGillivray 2001: n. p.). Corporations have adopted this managerial mindset as a set of values and principles to inform business decision-making and practices to achieve economic growth without engaging with their actions’ harmful ecological consequences. Essentially, corporations often understand economic sustainability as a prerequisite for environmental sustainability. As a strategically deployable shifter, sustainability suggests aligning values and interests among different groups, even when such alignment may not exist. The concept has evolved into a crucial tool for corporations to navigate criticism and communicate in a shared language with various stakeholders, especially local communities while planning development projects. In this way, sustainability rightfully takes its place among the expanding array of virtuous languages, such as responsibility and transparency, that “invokes ethics as a source of corporate legitimacy in a great variety of geographical and political-economic contexts, as well as across the full spectrum of industries” (Dolan & Rajak 2016: 22).

In today’s corporate capitalism, business practices are unprecedentedly concerned with ethics. Mette High (2022a) emphasises that this trend does not entail embracing more profound moral imperatives on the companies’ side. Instead, companies are increasingly seeking apparatuses to actively and concertedly demonstrate ethics,

including some practices and excluding others in what can be labelled as ethical. Environmental conservation initiatives, philanthropy, donations to causes, support for local communities, social impact investments, transparency and reporting are only a few of the apparatuses through which corporate capitalism is ethicised. They are part of the enlarging and evolving landscape of corporate social responsibility (CSR), which has become an object of methodical anthropological analysis as it progresses from a constellation of scattered practices to a systematic corpus of ethical evaluation standards (De Neve et al. 2008; Rajak 2011; Dolan & Rajak 2016). CSR alludes to the idea that companies have obligations towards society beyond generating profits. Corporations that have long operated in semi or complete invisibility from the public eye are progressively exposed to the scrutiny of governments, international organisations, and media consumers. As they carry out their operations, companies become subject to new regimes of accountability aimed at instituting ethics and social responsibility in business practice and vouching for their 'doing good' to society and the environment. They use CSR's evolving, overlapping, and malleable discourses and practices to assert themselves as ethical actors through a professed elision of moral principles and profit. Ethnographers have focussed on revealing the conflicting interests (Gardner 2012) and the reproduced patterns of patronage, dependency, corruption, and control (Welker 2009; Rajak 2011) behind CSR practices. While scholars seek to uncover what lies beneath CSR's claims of promoting sustainable development and ethical business through consensus-based operations, CSR provides a resourceful toolkit for corporations continuously searching for new markets. For its adaptability and capacity to exploit the unpredictability of global markets, CSR branched off into the various provinces of capitalism. It is embraced not only by corporations which adopted the 'doing well by doing good' credo, but it has also gained affection among consultancy firms, development institutions, certification bodies, think tanks, and social enterprises (Thrift 2005). Non-profit organisations are not immune to the charms of CSR, as I could observe during fieldwork in *ènostra*. As the cooperative navigated an expanding yet uncertain energy market, discussions emerged among certain directors and members regarding how they could effectively demonstrate their

commitment to ‘doing good’ for both an expanding membership and a potentially broader clientele. The process of “growing up” as an organisation, as discussed in Chapter 2, prompted some individuals to contemplate incorporating tools and practices aligned with CSR propositions.

During my interview with then-Vice President Gianluca Ruggieri at the commencement of my fieldwork in early 2021, he expressed the belief that, with the cooperative’s growth and the turnover in the board of directors (BoD), *ènostra* should formalise the values and principles previously upheld by specific individuals. As anticipated in previous chapters, in 2021, *ènostra* entered the last year of the mandate for its second BoD, featuring continuity with three out of five members from the preceding board (i.e., Gianluca Ruggieri, Sara Capuzzo and Davide Zanoni). While they had earned the trust and admiration of a significant portion of *ènostra*’s members, they were well aware that the cooperative’s highest governing body would undergo renewal. Consequently, they began to contemplate how the moral foundations of an organisation merely six years old could be upheld. In 2021, I attended several online meetings where *ènostra* employees and members discussed what frameworks could be used to navigate the cooperative’s growth. As part of the participatory pathway described in Chapter 3, *ènostra* initiated a dialogue among its active members to enhance the tools employed for safeguarding its principles and values and reporting compliance to its members. Apart from the statute, which makes generic reference to the production, purchase, and sale of electricity exclusively from renewables, the provision of energy efficiency services and the promotion of aware and eco-sustainable use of energy, the only other operational tool at the time of my departure from the field was the *relazione di gestione* (lit. ‘management report’), an annual report on operations compiled by the cooperative’s staff. The document consisted of a detailed account of all the activities carried out by the cooperative in a given year, accompanied by a financial report on the income and expenditure related to electricity revenue and members’ capital. However, during fieldwork, *ènostra* had not yet

commenced a systematic collection of non-financial data associated with the cooperative's social and environmental commitments.

For some of the *ènostra* members, endowing the cooperative with a CSR portfolio did not seem as pressing an issue as it did for some directors. On several occasions, I tried to elicit members' opinions on the procedures adopted by the cooperative when planning its projects, especially engagement with and impacts on local communities. I was surprised that most members barely had any information about it, even those who would be on the front line regarding advertising *ènostra* as an ethical cooperative. Most would refer to the cooperative's partnership with organisations such as Banca Etica as a guarantee of its ethicality, while others saw the local administration's and Pro Loco's involvement in the *fiesta* for the collective wind turbine as proof that the plant was well-received.<sup>2</sup> For long-time members, it was a matter of personal connection with the directors and confidence in their perspectives and the advice of the cooperative's consultants. *ènostra* instituted a *comitato scientifico* ('scientific committee') relatively early, composed of a panel of researchers and professionals with diverse expertise. The *comitato scientifico* was formed to oversee and guide the cooperative in selecting projects and producers for electricity acquisition, adhering to sustainability and ethics criteria. However, I never came across a document formally establishing these standards. Moreover, it seemed that *comitato scientifico* would be consulted only occasionally, offering advice on a case-by-case basis. It was not until the final stages of my fieldwork that discussions about a *policy di sostenibilità* ('sustainability policy') emerged, involving the development of a framework to assess the suitability of a given project or member-producer. In September 2022, after leaving

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<sup>2</sup> Pro Loco (both singular and plural) are local grassroots organisations commonly found in Italy. Pro Loco are typically composed of volunteers and are established in various towns and communities to promote and enhance a specific locality. Their activities often include organising events, festivals, cultural initiatives, and other projects to foster community engagement, preserve local traditions, and promote tourism. The Pro Loco of Mocaiana was involved in organising the *fiesta* to celebrate the launch of the collectively-owned wind turbine.

Milan, I had an online meeting with Giacomo, who told me that he and Piergiorgio had been actively working on the *policy di sostenibilità*. Giacomo clarified that their efforts involved developing a questionnaire for submission to the member-producers. Sometime later, I asked Giacomo and Piergiorgio if they could share the document with me, and they kindly agreed. The questionnaire aimed to assess the sustainability and ethicality of member-producers and identified areas of analysis and evaluation for businesses such as the sector of activity, legality, transparency and governance, community relationships, environmental responsibility, social responsibility, supply chain, and workers' wellbeing. Developing a sustainability policy highlighted the growing recognition among my interlocutors of the need to shift from informal to more formalised methods of showcasing the organisation's commitment to ethical and sustainable practices. As *ènostra* expanded its operations and membership, some directors and workers began to acknowledge the necessity of integrating strategies that aligned the cooperative with its corporate energy market competitors.

## Sustainability, ethics and the renewables dilemma

While the *policy di sostenibilità* was still a work in progress, the principles that informed it were engrained in the stories and narratives that inspired *ènostra*. In the following sections, I will elaborate on Sara's assertion, made during her introduction to Michele, that renewable energy is not inherently good, drawing on scholarly insights that help explore the nuanced links between renewable energy and ethics. I will examine the origins of these principles to shed light on how concerns with sustainability and ethics became central in *ènostra* and what attempts to systematise them were being made.

Efforts to infuse ethics into corporate capitalism are conspicuous in industries involved in transforming natural resources into market commodities, with the energy industry standing out prominently. Energy companies directly interact with the environment, its human and non-human inhabitants, and resources, creating intricate and high-stakes connections for all stakeholders (Smith 2021; High 2022a). In particular, fossil

fuels are commonly associated with environmental damage, wealth accumulation, and socio-political inequalities. The geophysical consequences of coal, oil, and gas-related activities are substantial, prompting scientists and activists to work towards halting and potentially reversing these transformations in the biosphere. Activities such as deforestation, excavation, and drilling, prevalent in the fossil fuel industry, have become associated with the imagery of desolate lands, concentric carved-out mountaintops, and oil spills, contributing to the collective perception of environmental disasters. However, as Henrietta Moore (2017) posits, the anthropogenic transformations of our planet stem from a logic less tied to the type of energy source than it is to the highly financialised capitalist economy dictating human interactions with nature. Commonly known as extractivism, this logic is considered a defining dynamic and mentality of our era, extending beyond the mere extraction and use of natural resources. It is better understood as “the result of a particular ontological assemblage [wherein] ideas of civilisation, empire, sovereignty, accumulation, terra nullius, capital, and modernity have become layered and intertwined to form a rationale for intensifications of both social and planetary exploitation” (McNeish & Shapiro 2021: 3). Extractivism, used to justify intensive resource extraction to meet the increasing demands for energy, food, and consumer goods due to the expanding human population, goes beyond the exhaustive use of natural reserves. It encompasses a supportive infrastructure for such activities, including roads, pipelines, dams, pylons, and cable networks.

Although fossil fuels have been singled out as the culprit for the daily socio-environmental disasters, they represent only one facet of extractivism, albeit striking. Renewable energy is not exempt from contributing to perpetuating traditional forms of environmental damage and social inequalities, and it even introduces new challenges. Renewable energy development often amplifies the difficulties associated with fossil fuel extraction instead of presenting clear solutions. Renewable energy involves various excavation machinery, mining tools, and transportation equipment, all relying on hydrocarbons and extraction methods. Additionally, the transition

involves establishing energy-intensive facilities that generate toxic waste during the mineral-processing stage (Dunlap 2021). Unsurprisingly, renewable energy development often faces opposition from local communities ‘hosting’ these projects.<sup>3</sup> Scholars have extensively delved into the visions, concerns, and conflicts driving contestation against renewable energy by residents, activists, grassroots associations, and local and global organisations, with various arguments forming the basis of this contestation (Howe & Boyer 2015; 2016; Dunlap 2017; Boyer 2019; Temper et al. 2020; McDermott-Hughes 2021). Similar to Michele's and the CAWWE's experiences in this chapter's opening vignette, individuals worldwide are facing the ‘energopower’ of renewable energy. Coined by Dominic Boyer (2011; 2014), the concept of ‘energopower’ has come to highlight the complex power dynamics associated with developing and implementing renewable energy infrastructures, which often jeopardise livelihoods, landscapes, and ontologies. Concurrently, scholars have been experimenting with the elaboration of a comprehensive energy justice framework to capture the complexity of the relationships embedded in planning, developing, implementing, and managing renewable (and non-renewable) energy projects (Sovacool 2013; Sovacool & Dworkin 2015; Jenkins et al. 2016; Sovacool et al. 2017). In this context, energy justice relates to the fair and equitable distribution of the benefits and burdens associated with energy production, distribution, and consumption. This framework incorporates social, economic, and environmental considerations to ensure that all individuals and communities enjoy equal access to affordable and reliable energy while mitigating the adverse impacts of energy production on marginalised or vulnerable groups. As a field of research concerned with the ethical dimensions of energy development, energy justice research has generated discussions about energy and ethics. Scholars in energy justice tend to adopt a normative

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<sup>3</sup> I put ‘host’ in inverted commas as its usage in this context is greatly debatable. While it is commonly employed in reports, policy documents, and academic papers, this term comes with ethical and political implications. Specifically, I observe that the term portrays the local community merely as a recipient and not as an integral participant in the project and/or its outcomes.

approach to ethics, offering an informed evaluation of the moral positions underpinning certain rights in specific situations. In essence, these scholars consider ethics an objective matter that should be universalised and standardised, providing a position for objective scrutiny to enhance rigour in energy decision-making (Sovacool 2013; Delorme 2018; Frigo 2018; Bethem et al. 2020).

In ènostra, issues of sustainability and ethics appeared to surface and develop on a normative basis, concerned with the standardisation and prescription of principles that indicate good conduct within the energy sector. Formalising a policy to assess a power plant's ethical and sustainability standards is aligned with this approach. However, I contend that a normative perspective, or what has been classified as an 'ethics of energy' approach (Frigo 2017), can only provide a superficial account of how the relationships between energy and ethics unfold in ènostra. Instead, drawing on Jessica Smith and Mette High's perspective, I propose to "look underneath the surface [...] to gain a [more] complex, hard[er] look at the ideas and values which are fueling people's understanding of energy and the environment" (Smith & High 2017: 10). I do not intend to diminish the relevance of norms and standards in the interplay between energy, ethics and sustainability. Indeed, energy and ethics operate within multiple 'regimes' where formal practices like professional codes of ethics, whistleblowing, and breaking ranks coexist with personal judgments and perspectives arising from the ethical sensibilities of actors in the energy industry (Smith 2021; High 2022a). In this vein, I propose that to understand better ènostra's current emphasis on enhancing its sustainability and ethical standards, we need to examine the visions of its founders and the energy landscape that shaped the cooperative's evolution.

## In the beginning was the Sun

In Chapter 2, I highlighted ènostra's historical commitment to a specific renewable technology: photovoltaics. This emphasis, partly influenced by a generous subsidy scheme for solar power back then, has significantly moulded ènostra's path in the



energy sector, shaping their perspectives on ethics and sustainability. However, wind power started to gain prominence as concerns grew about the urgency to meet the demands of an expanding membership base and accelerate the transition to renewable energy. As of the end of 2022, ènostra generated approximately 5GWh of renewable electricity, sourced from 31 producer member-owned plants and 13 ènostra-owned plants. Notably, 42 out of the 44 total plants were photovoltaics, except for the Cerrone wind turbine and a smaller wind turbine owned by a member producer in Sardinia (see Chapter 4). A surprising shift emerged when examining the annual report published in the summer of 2023: wind power constituted 64% of ènostra's total generation capacity, marking the first time wind-generated electricity surpassed solar-generated electricity, which had dominated at 84% just the year before. ènostra emphasised this exceptional transformation in the document: "Despite the low wind levels in 2022 and the challenges encountered, it's worth noting that the plant [*il Cerrone*] still outperformed all of ènostra's 'historic' plants. Quantitatively, wind power has become the primary renewable source for ènostra's facilities" (ènostra 2024b: 23). ènostra endorsed this view in the *policy di sostenibilità* draft Giacomo and Piergiorgio shared with me, which stated that wind technologies produce more energy than photovoltaics with equal power capacity. It is no coincidence that ènostra was actively seeking new opportunities in the domain of wind turbines. As anticipated in the previous chapter, after my return to Scotland, ènostra initiated a new wind project close to *Il Cerrone*. Named *Il Castiglione*, the new turbine was slightly larger than *il Cerrone*.

At first glance, the considerations behind choosing the types of renewable energy sources seemed to follow a calculative logic, as the adverb 'quantitatively' in the quote above suggests. ènostra's directors and members believed expanding wind power generation would augment the energy supply. Wind turbines provided a more suitable technology for the type of projects that ènostra pursued, with limited impact in terms of land consumption (see Chapter 2). Wind turbine technologies typically yield significantly more energy than solar panels for the same land required. Wind turbines

were not the sole technology under consideration for diversifying the electricity generation portfolio. When I commenced my fieldwork, discussions about biomass and hydroelectric options were underway. Specifically, the cooperative had been indecisive about a hydro turbine project put on hold following the discontinuation of state subsidies for hydroelectric energy in 2016. Like wind power, hydroelectricity typically ensures a larger generating capacity than photovoltaics. *ènostra* viewed hydro as a complementary source to wind and solar, which are ‘intermittent,’ that is, their power generation fluctuates over time due to natural factors beyond human control. In addition to quantitative considerations, *ènostra* also factored in other criteria such as reliability and zero-emission in their decision-making process. The cooperative opted to invest in solar, wind, and hydro technologies, considering them as *tecnologie mature* (‘established technologies’) given that the cooperative was not yet sufficiently developed to fund more innovative technologies like biogas and biomass plants. Moreover, these established technologies did not release atmospheric pollutants during energy production.

Despite efforts to broaden the array of renewable energy sources, the fundamental philosophy of *ènostra* remained anchored in the technology that initially inspired the cooperative’s formation: solar. As the following ethnographic accounts will illustrate, to comprehend the nuances of *ènostra*’s conceptualisation of sustainability and ethics, we should look at ‘solarity.’ With solarity, I refer to the “state, condition, or quality developed in relation to the sun, or to energy derived from the sun” (Barney & Vemuri 2022: n. p.). Solarities, which are multiple and diverse, extend beyond the focus on solar energy as fuel to embed orientations towards the sun that encompass connections with land, minerals, water, animals, and people, which are shaped and manifested through infrastructure (Szeman 2020; Szeman & Barney 2021; Barney & Vemuri 2022). With its versatile applications in electrification, heating, and storage solutions, solar energy served as the technological and economic foundation for *ènostra*. The cooperative strategically developed a network of a dozen engineers comprising the energy service team, pivoting around solar technologies. The same

national policy framework propelling ènostra's evolution from a grassroots organisation to a community enterprise also profoundly impacted the national solar sector. As anticipated in Chapter 2, the national subsidies for solar energy played a pivotal role in encouraging numerous producers to adopt solar technologies. This trend was predominant at the household level, with many individuals becoming involved with ènostra as either member-producers or member-users owning photovoltaic (PV) systems, leveraging the cooperative's energy services.

From a technological standpoint, solar energy boasts distinctive features. The flexibility and simplicity of installation systems and the capability for integration onto existing structures such as roofs, facades, and industrial building covers, coupled with the proximity of production and consumption locations, contribute to reducing electrical losses. Engineers commend these attributes as key benefits of solar technology (Hegedus & Luque 2003; Schleicher-Tappeser 2012; Giannuzi et al. 2012; Di Dio et al. 2015). These attributes and robust policy support ensured that many ènostra members became well-acquainted with this technology. Besides its technological features, solar energy, perhaps more than any other energy source, has stirred social and political imagination. Solar-inspired visions of a solar economy are grounded on a decentralised renewable energy supply chain and a reconfiguration of the energy infrastructure. According to German politician and intellectual Hermann Scheer (2004), a solar economy would overturn extended and inefficient carbon and nuclear energy distribution networks. For him, the latter served as the foundation of a centralised energy structure exploited by political powers to suppress or disregard communities and individuals. At the same time, solar energy has been integrated into a techno-deterministic narrative, expressed in various literary and non-literary genres, more or less fictional (e.g., solar punk), that promotes the conviction that the sun can fulfil our energy requirements and provide for humanity solely through technological means. This belief highlights the plentiful nature of the sun's resources and the human innovation necessary to utilise them while downplaying the significant obstacles of achieving a worldwide energy transition.

Even though solar outperforms all fossil fuels in terms of cost per kWh and stands as the most rapidly expanding renewable energy technology worldwide, it is unlikely to provide a definitive solution to the energy transition by replacing fossil fuels. Various scholars have contended that transitions, especially at large scales, do not occur through a straightforward substitution of one energy source with another; instead, they unfold as a process of accumulation (Bakke 2021; Günel 2022). Electricity provides a valuable ground for understanding the reasons behind this process. As emphasised in Chapter 4, electricity is intimately connected to the grid. As societies progressively increase the amount of electricity produced through renewable sources, new challenges arise regarding grid management. When introduced into an existing energy system, fossil fuels often emerge as a singular solution: coal takes the place of water, rather than moderating it, until the mills no longer depend on rivers. Oil supplants coal instead of coexisting with it, dividing the combustive load; machinery and supply systems transition from supporting one to facilitating the other (Bakke 2021). Renewable sources do not seem to work the same way. Because of their intermittent nature, a combination of incomplete solutions (e.g., solar, wind, hydro, biomass) is needed to achieve reliability. In other words, the transition will unlikely happen as a swift replacement of fossil fuels with renewable sources for producing energy, but it will involve some degree of coexistence between them because of the need to balance the grid.

Solar energy has been central to *ènostra's* project since its inception. Solar energy not only fueled the founders' vision of communal energy production but also served as the technological cornerstone guiding the development of the cooperative and its principles. In the discussion that led to the establishment of the association *Solare Colletivo* (the precursor to *Retenergie*, see Chapter 2), Marco Mariano and his fellow founders contemplated installing the first cooperative's photovoltaic system on the ground, specifically in a field on Marco's farm. Ground-mounted PV systems consist of solar panels supported by poles anchored in the ground. The issue of land use

emerged soon after Solare Colletivo was established. The allocation of hectares of agricultural land across Italy for large-scale photovoltaic installations formed the central focus of the group's initial ethical dilemma: Was it ethically justifiable to sacrifice fertile land for the sake of energy production? As highlighted in Chapter 2, concerned with the increasing land use linked to the surge in large-scale solar plants nationally, the predecessors of ènostra concluded that rooftop-mounted solar panels represented the most equitable form of solar energy. They believed other land uses, such as agriculture, should be prioritised over renewable energy development. This principle ultimately influenced the decision to abandon the idea of constructing photovoltaic plants on Marco's farm, whose barns were deemed unsuitable, and instead seek a third party. *Consumo di suolo* ('land consumption') resonated with my interlocutors' main concerns throughout fieldwork. The idea of refraining from land use was pivotal in their notion of sustainability, as illustrated by the quote below from a *serata informativa* (the promotional events held by ènostra active members).

The most significant environmental impact caused by a photovoltaic system is linked to its potential land occupation. Photovoltaics can encroach upon vegetation, causing damage to the landscape, agriculture, and photosynthesis. In some cases, it can contribute to hydrogeological instability. For us, a photovoltaic system is preferable to cover roofs, canopies, and industrial buildings (even better if asbestos is removed) or place on former landfills, depleted quarries, or interstitial areas.

With these words, Martin argued that ènostra "considers photovoltaic technology as one of the potentially least impactful options." Solar energy is often portrayed as an abundant energy source during the current climate crisis. The sun's energy is often represented in grand and overflowing terms, particularly in discussions related to solar transitions. Although the promise of solar energy is predicated on its abundance, the availability of land for its development is finite, and allocating land for solar

diminishes the possibility of utilising land for other purposes.<sup>4</sup> Depending on the system employed, whether it be utility-scale photovoltaic systems or concentrated solar thermal power facilities, one to seven hectares are needed per generated megawatt (Barney & Vemuri 2022). Land use thus emerges as one of the most crucial factors in solar energy's environmental and political implications. As emphasised in the previous section, reactions to massive renewable development often align with anti-extractivist orientations. The longing for boundless and inexhaustible energy appears to be closely entangled with capitalist fixations on unbounded expansion, which, in many instances, have disregarded the needs of the majority in favour of catering to the avarice of a privileged few. For example, large-scale photovoltaic farms occupied large portions of agricultural land in Greece. Enabled by a programme for renewable development welcomed by the Greek government as a response to austerity measures that favoured investment of foreign companies, solar facilities were being perceived as novel manifestations of extractive economies that enlivened anti-colonial sentiments among local communities (Argenti & Knight 2015). Similarly, within *ènostra*, there was a prevalent sentiment to resist the extractivist logic that underlies numerous large-scale renewable energy projects in Italy. As exemplified by the ethnographic vignette presented at the outset of this chapter, the cooperative aligned itself with local communities that opposed such projects. Anti-extractivist and anti-land grab motives informed *ènostra's* solarify, articulated with ethics and sustainability.

Imre Szeman and Darin Barney (2021) emphasise that contemplating solarify prompts exploring the shift to renewable sources as a transition encompassing alterations in political and economic frameworks and connections and substantial

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<sup>4</sup> In some part of the world, this situation is gradually changing with the introduction of agrivoltaics. Agrivoltaics refer to the practice of co-locating agriculture and solar panels on the same area of land. This approach allows for dual land use, where agricultural activities such as crop production or grazing can occur simultaneously with the generation of solar energy.

changes in social dynamics and cultural transformations. Szeman and Barney advocate for scholars to delve into the potential future scenarios of solarities while cautioning against overlooking the possible drawbacks of solar energy. They highlight the risk that the promise of environmental restoration and social justice inherent in solar initiatives may go unfulfilled if entirely subjected to capitalist logic. In the energy industry, solar energy is sometimes treated as a remedy for global environmental and societal issues, which pose the danger of perpetuating or worsening existing inequalities. Jamie Cross's research with solar entrepreneurs in sub-Saharan Africa and Southern Asia illustrates how those developing and promoting photovoltaic technologies for individuals in energy-deprived conditions often envision solar as an idealistic solution to enhance people's lives (Cross 2013; 2018; 2019; 2020; 2021). Although well-intentioned, efforts to introduce solar devices into socioeconomically marginalised contexts frequently reproduce the production, trade, ownership, and property patterns intrinsic to capitalist economies, reinforcing advantages associated with race, gender, and class. Solar energy risks overshadowing crucial social, economic, and political dynamics associated with its development, similar to how the label 'organic' operates in food systems. For instance, Julie Guthman's (2004) ethnography of Californian organic agriculture shows how most of the products dominating the US market and labelled 'organic' are produced on large estates using intensive methods and migrant wage labour. Moreover, organic-labeled products are frequently transported across countries and continents and distributed by major retailers. Viewed in this way, 'organic' operates more as a manifestation of commodity fetishism that acknowledges ethical consumers' pursuit of moral objectives within capitalist markets rather than as a tool to rectify the flaws in such markets (Carrier 2010). "[A] virtuous substitute that dispels fears and anxieties about who is doing what with solar and why" (Szeman & Barney 2021: 6), solar should be approached critically.

In *ènostra*, solarity was not solely articulated in the cooperative's ethical and sustainability framework but reached into the individual domain. In particular, solar

technologies influenced my interlocutors' own views of ethics and sustainability. Photovoltaics, especially at the household level, were often combined with various energy efficiency technologies such as solar water heaters, heat pumps, solar air conditioning systems, solar-powered appliances and other devices designed to minimise energy waste and optimise energy harnessed from the sun. These technologies, referred to in *ènostra* as *virtuose* ('virtuous'), were crucial to many cooperative members' everyday lives, forming part of and influencing their views on conducting a sustainable and ethical life. Daniel, a journalist and founder of a newspaper focused on environmental sustainability and alternative economies, demonstrated a significant commitment to energy efficiency among the members I encountered. During an interview, he shared the story of his ongoing renovation project of an old house in Liguria, northeastern Italy, with his partner Emanuela. Collaborating with the energy services team from *ènostra*, a group of engineers dedicated to providing technical support for cooperative members, Daniel and his partner embarked on a *bioedilizia* project. The Italian concept of *bioedilizia* aligns with sustainable architecture, incorporating theories, methods, and applications to minimise the adverse environmental effects of construction by enhancing efficiency and regulating the use of materials, energy, and space (Keitsch 2012). The *ènostra* team supported the couple in designing a sustainable house, incorporating natural materials like hemp, raw earth, clay, and lime plaster for walls, roof, and floor insulation. In addition to insulation, they opted for a heating system based on underfloor heat pumps. Described as "another way to draw upon the sun's energy" (Zehner 2012: 140), heat pumps generally work in association with solar technology, either thermal or photovoltaic. In Daniel's case, solar panels powered the house's heat pumps and other appliances. For Daniel and Emanuela, energy efficiency was an ethical matter. They held a view of ethics that extended beyond the preoccupation with how companies produce energy to encompass how end-users utilise it. This vision was supported by Tommaso, the *ènostra* engineer who supervised the sustainable house project, in an interview with Daniel himself. Tommaso explained that the reason for promoting energy efficiency lay in an ethical vision: "We cannot



continue waste [energy] as we have done in the last decades.” For Tommaso, fossil fuels have encouraged wasteful lifestyles because they have been long perceived as abundant resources: “Now that this brief human experience of using this ‘drug’ will end, we must return to a more modest and restrained approach to natural resources. Thanks to technology, this won’t lead us to a life of hardship but will give us a new balance between needs and consumption” (Sabidussi 2022: n.p.). Daniel and Emanuela praised *ènostra* for promoting energy practices focused on efficiency and reducing consumption among its members despite the cooperative being an energy supplier. From their perspective, ethically engaging with energy was as relevant for individual consumption behaviours as it was for companies’ production operations.

Echoing the view of other *ènostra* members, Daniel, Emanuela, and Tommaso understood the relationship between energy and ethics as extending beyond the notion of corporate social and environmental responsibility. They embraced a vision that places responsibility on individuals besides technologies, corporations, and political entities. From this standpoint, efforts on the end-user side to adopt energy efficiency behaviours are as vital as governmental mandates and corporate practices to shift towards low-energy societies (Wilhite 2013). As Tommaso suggests, this requires a shared understanding of sustainable energy consumption as not regression or sacrifice but rather as readjustment, which might even offer opportunities to improve quality of life. Some of my interlocutors talked about a sense of accomplishment and enjoyment in operating energy-efficient technology to use less energy and to use energy only when strictly necessary. *ènostra* encouraged members to install solar-powered energy efficiency technologies by providing energy services and through a specific tariff called *Tariffa Casa Virtuosa* (‘Virtuous Home Tariff’). Members who embraced ‘virtuous technologies,’ such as solar panels, heat pumps, and energy storage systems to improve the energy efficiency of their homes, could benefit from a discounted tariff. In short, ‘virtuous members’ had an economic advantage compared to most *ènostra* members even though they consumed more electricity than them. While this seems to contradict the idea of reducing energy

consumption, the discounted tariff was explained to me as an acknowledgement of the positive individual impact that members had in terms of CO<sub>2</sub> emissions. In other words, by implementing low-carbon technologies, these members were seen as exerting individual responsibilities towards the environment, thus providing a collective benefit. As a social and cultural condition that enabled the imagination of an energy transition from below, in *ènostra*, solarità did not only contain the promise of ‘clean’ energy and the possibility of cutting out fossil fuels (Szeman 2020), but it did so by placing the end-user at the centre of this process. This perspective, shared by many of my interlocutors, is encapsulated in a book that Retenergie founder and *ènostra*’s former Vice-President Gianluca Ruggieri co-wrote with physicist Fabio Manforti. The book foreshadows a ‘solar civilisation,’ a concept evoked in the title, in which societies, aided by energy efficiency technology, will live in harmony with the natural energy flows without extracting fuels from the planet (Ruggieri & Manforti 2016). *ènostra*’s solarità implied energy-conscious subjects that incorporated practices and values of sobriety and efficiency despite the expansion of renewable energy capacity. In this sense, *ènostra* suggested decoupling renewable energy development from ideas of economic growth. Instead, as Barney and Vemuri would put it, it evoked another imaginary, “not of growth but of abundance [which] is nothing like the overcoming of limits, the stockpiling of surplus siphoned to increase production [and which] would untether our visions of the good life from narratives of growth and private accumulation and mobilise behind equitable sharing of energy as a collective good” (Barney & Vemuri 2022: 11-12).

## Sustainable principles for unsustainable matters

In May 2023, *ènostra* administered a questionnaire to its members to gauge their opinion on including ground-mounted photovoltaics in the cooperative’s renewable facilities portfolio. This survey stemmed from an ongoing discussion within the cooperative about new technologies to incorporate to expand *ènostra*’s production capacity. The survey results revealed that most respondents were receptive to ground-

mounted solar installations, especially if these installations prioritised areas such as industrial and commercial zones and previously utilised land, such as parking areas. As ènostra highlighted in a recent publication, these results would prompt the cooperative in the future, especially in instances where the development of such facilities entailed the “rehabilitation of a deteriorated landscape” and the realisation of “meaningful positive social impacts” (Usuelli 2024: 160). Although the publication did not define deteriorated landscapes and meaningful positive social impacts, their meaning emerged from conversations with my interlocutors during the last stretches of fieldwork. Piergiorgio, who was developing the sustainability policy with Giacomo, once explained that the policy would assign a score based on the type of facility. “A ground-mounted installation would be rated lower than a rooftop one under equal conditions,” he suggested. However, the policy would also evaluate other aspects besides the technology type. He clarified his statement with the example of a landfill solar facility. “Although it may not be considered equivalent to a rooftop installation, landfill solar facilities might be considered regenerative for an environment that has been compromised from an ecological standpoint.” Similarly, Piergiorgio continued, ènostra was keen to consider agrovoltaic, an innovative farming system in which the same land is used for agricultural production and solar energy generation seen by some as economically and environmentally sustainable (Agostini et al. 2021).

For Piergiorgio, larger-scale solar facilities rather than rooftops represented a third way between intensive agriculture *per se* and intensive renewable generation *per se*. Because every human activity has an impact, he said, “we should at least try to mitigate this impact by implementing installations that can support, improve, or reclaim agricultural land that is abandoned, creating both employment and income.” Giacomo showed a more pragmatic approach to the matter. He considered land with no alternative purpose rationally suitable for solar energy generation. After recalling how public scepticism about rooftop solar installations had changed during his career in renewables, he seemed confident that the same would happen with large-scale facilities. Upon admitting that the quest for optimal solutions in energy development

was elusive and that “there is no perfect answer,” he claimed that “today, the urgency to do photovoltaics is greater than before.” Giacomo’s view condensed a shared feeling in *ènostra* that the cooperative was called to make a fundamental shift in its approach to sustainability, impelled by the need to accelerate the energy transition.

In energy transition discourses, urgency is paramount. There is increasing public consensus among environmental advocates that the global urgency induced by climate change necessitates the rapid advancement and deployment of large-scale near-zero-emission energy infrastructures and that delaying this transition is not an option. Scholars warn that “urgency also serves strategies for an energy transition that entrench, intensify, and depoliticize environmental and other injustices” (Barney and Vemuri 2022: 46). *ènostra*’s solarify seemed to harmonise worries about the current climate crisis with concerns about social impacts. However, some views I encountered during fieldwork seemed to align less seamlessly with such an approach, as shown in the following vignettes. Towards the second half of 2022, I interviewed Andrea, a digital librarian passionate about blog writing and well-interested in climate and energy matters. Despite his brief affiliation, he embraced the cooperative’s vision, particularly the concept of solarify, as illustrated in the previous section. In Andrea’s view, end-users played a fundamental role in transitioning to a fully renewable energy system, which entailed adopting solar-powered technologies to improve homes’ energy efficiency. He proudly mentioned that he and his partner owned an electric car and intended to convert their home to a fully electrical energy system. “I like the idea of electrifying as much as possible,” he remarked. Andrea’s perception of the crucial role of solar-powered, energy-efficient homes and individual energy choices in the transition were common among my interlocutors.

However, Andrea’s account was somewhat unusual. Unlike others committed to championing local and small businesses, Andrea notably appreciated megacompanies like Tesla. According to him, Tesla was at the forefront of groundbreaking technological advancements, citing the Megapack — a sizable lithium-ion battery

system. Andrea viewed it not only as a potential solution for energy storage to stabilise the grid and prevent outages but also as a technology that could play a crucial role in phasing out fossil fuels. While I was surprised to hear positive sentiments about Tesla, a company often criticised for its ultra-capitalist approach to the energy transition and workplace culture (Chiusi 2023), my conversation with Andrea revealed an undercurrent sentiment within *ènostra*. He acknowledged the challenges of the energy transition, discussing issues such as renewable extractivism and potential job losses associated with moving away from fossil fuels. Despite recognising these pitfalls, he held an unwavering perspective that he described as “cynical” when addressing the “priorities” of present societies. Expressing his ideal scenario, he envisioned a decentralized approach without cobalt, upholding human rights, offering excellent employment contracts, advanced paid vacations for all, and a smooth transition. However, he pragmatically acknowledged the harsh reality, stating, “It’s a tough world; it doesn’t work like that at all!” From Andrea’s perspective, the transition would inevitably entail costs for someone. Originating from a village in the Emilia Romagna lowland severely affected by the 2014 floods, he felt a persistent threat from extreme weather events associated with climate change. He urgently conveyed his stance on the energy transition: “We must look at the big issues,” he emphasised, referencing rising temperatures, melting glaciers, floods, and other events, underscoring the urgency of “the current situation, which is unsustainable.” Andrea’s pragmatism highlighted what Thomas Hylland Eriksen (2023) describes as a clash of scales, a phenomenon increasingly observed in an overheated world marked by accelerated change. By advocating for a global perspective on the effects of climate change, Andrea elevated the imperative to address what he defined as “the big issues” on a broader moral scale. This contrasted with, for instance, the social and environmental challenges involved in local infrastructural projects that *ènostra* tried to address in its approach to sustainability, illustrating a nuanced prioritisation of concerns.

The sense of urgency to act against climate change was not unique to Andrea. In several discussions with my interlocutors, I noted open attitudes towards large-scale renewable projects that diverged from the sustainability principles historically pursued by the cooperative. These perspectives prioritised agricultural and other land uses over extensive renewable energy infrastructure, such as the controversial ‘Wild Wind’ projects in Irpinia. I will illustrate these clashing perspectives further with another example from fieldwork. The Apennine mountain chain in Italy is increasingly recognised as a promising site for wind energy development. One notable area is Alto Mugello, situated in the Apennines range, shared by Emilia Romagna and Tuscany. The *crinali* (‘ridges’) of Alto Mugello are now actively sought after for wind projects. Renowned for its scenic landscapes, Alto Mugello attracts numerous tourists seeking tranquil and adventurous mountain holidays. Additionally, it is home to farmers engaged in diverse crop cultivation and livestock breeding. These wind energy projects have sparked strong opposition from individuals who perceive them as potential sources of devastation, particularly concerning alarming hydrogeological risks raised by climate activists. Through conversations with my interlocutors, I discovered the existence of the Comitato per la Tutela del Crinale Mugellano (CMCT), a network comprising individuals and associations vehemently opposing wind farms in the region. The CMCT articulated their view on their website, directing their appeal to key regional and national environmental authorities (see Figure 28):

Our reasons are the same from north to south: the hydrogeological defence of fragile territories at risk of landslides and landslips; the protection of spontaneous flora and wild fauna, resident and migratory birds; safeguarding mountain forests, meadows, and pastures, and the preservation and enhancement of plant and animal biodiversity in the Apennines; the defence of communities and agricultural businesses that inhabit and derive their income from the land, in harmony with it, caring for it without jeopardising its resources; and the protection of the Italian landscape. These are the foundational principles of the movement to

which we all adhere, and they are also strongly represented and affirmed in the Italian Constitution, particularly in the recently updated and expanded Article 9. This update aims to strengthen citizens' sense of responsibility towards the environment in which they live. We shouldn't need to remind you of this. It should be you reminding us (CTCM 2023: n. p.).



**Figure 28.** Residents and committees from a town in Mugello took to the streets in protest against ‘Wild Wind.’

*Credit: Gogna Blog (2021: n.p.).*

During one of our interviews, I asked Marco, an *ènostra* member from a Tuscany town near the Mugello, about his perspective on the wind farm projects. I inadvertently called the projects ‘wild wind,’ which triggered Marco’s response. “I wouldn’t call it wild wind,” he asserted, contending that eight wind turbines (the scale of the most advanced project) on the ridges were not a significant issue. I acknowledged my slip and clarified that my terminology was influenced by the term the resistance network

described earlier used. Marco continued, “I know about them and respect them, but if we accept their arguments, the transition isn’t happening. It’s not happening anywhere, though!” According to Marco, the responsibility to address the challenges of ending fossil fuels and combating climate change fell on everyone, including those directly impacted by renewable infrastructure development. He described it as each person taking their “piece of the problem” to contribute to the collective effort. Once again, clashing scales arose in Marco’s and the CTCM’s stances regarding the wind parks. This clash extends across various levels, as aptly highlighted by Thomas Hylland Eriksen (2023) in his analysis of a controversy involving a bridge in an ecologically vulnerable area of a Norwegian river’s delta. In his account, Hylland Eriksen shows how there is not a singular local perspective that uniformly opposes the expansion of the highway, nor is there a distant viewpoint exclusively focused on the substantial economic benefits derived from infrastructure development, disregarding the impacts on the community. Instead, Eriksen highlights the nuanced, often conflicting viewpoints within both local and distant perspectives, emphasising the complexity of balancing community concerns with broader economic interests. Similarly, in the case of Mugello, the clashing perspectives differ from a simple binary opposition between climate activists and governments advocating for an accelerated transition and local communities defending their territory. At the risk of being misconstrued as NIMBYism, the CTCM’s position took a broader stance beyond the local level. This was evident in their opening statement expressing solidarity with committees throughout Italy, indicating a commitment to a perspective that transcended immediate local concerns. On the other hand, stances like the one expressed by my interlocutors positioned them on a more elevated scalar level that prioritised the wellbeing of the entire planet over the challenges faced by individuals residing in local communities.

Scholarly perspectives further illustrate clashes in scales. In a book about wind power and climate change, anthropologist David McDermott-Hughes (2021) draws insights from his ethnographic fieldwork in an Andalusian village, shedding light on resident reactions to renewable energy infrastructure and contemplating the lessons from such



experiences. While acknowledging the drawbacks of top-down renewable energy implementation, McDermott-Hughes appears to endorse the notion that large-scale wind farms, solar installations, and other forms of renewable infrastructure will play pivotal roles in steering the shift toward sustainable energy. According to him, large-scale renewable plants are crucial to advancing the energy transition and stabilising the climate, so they carry a moral significance in tackling a global problem. I have suggested that clashes of scales essentially reflect ethical and moral conflicts. While my interlocutors aligned with the cooperative's perspective on sustainability and ethics favouring small-scale, locally-focused renewable installations, the imperative to address the climate crisis and hasten the transition occasionally took precedence on a larger moral scale. The clash in moral scales was not confined to individual opinions but began to influence and inspire ènostra's approach to organisational ethical conduct, leading them to formalise a sustainability policy.

## Conclusion

In this chapter, I have shown that within ènostra, ethics and sustainability are not exclusively resolved within a framework of corporate conduct but are intricately interwoven with various socio-political instances and moral perspectives. As highlighted by Mette High (2022a), the energy sector often operates under multiple and concurrent regimes of ethics. These include formal practices like professional codes of ethics, whistleblowing, breaking ranks, and personal judgments stemming from industry actors' ethical sensibilities. All these manifestations reflect concerns about what individuals perceive as beneficial for society and the environment, along with their commitments to achieving these ideals. It is essential for researchers to critically examine and remain self-reflexive about these different manifestations to prevent their political views from unduly influencing their interpretation of field observations and to allow interlocutors to voice their unique positions and commitments (Smith & High 2017).

The regimes of ethics encountered in *ènostra* indicate that ethical principles and sustainability concerns were not only prone to clashes or discordance, as might be expected from the diversity of individual sensibilities forming the organisation, but were also dynamic and subject to change. Shifting ideas of ethics and sustainability within the cooperative fundamentally required rethinking what is deemed right and the underlying reasons why. These shifting ideas were significantly influenced by concerns about climate change and the urgent need to transition to renewable energy sources. These changing perspectives illustrate how specific courses of action may be elevated on a higher moral level when addressing social and environmental priorities, like adopting land-consuming technologies such as large-scale solar and wind facilities. Nevertheless, the future trajectory of discussions within the cooperative regarding new renewable technologies, perceived as catalysts for the energy transition, remains uncertain. What endures is a vision that emphasises the active involvement of end-users in renewable energy development, mainly through specific technologies like solar, as key to fostering a fair and equitable energy transition. The next chapter will delve into how this vision unfolds within the regulated space of a policy for developing renewable energy collectives and explore the intersections between ethical stances and techno-economic imperatives.

## Chapter 6:

# Visions of ‘Sharing’ in Renewable Energy Collectives

### Introduction

“I’m a bit of a dreamer... there are many things I don’t even mention now because if I spell them out, they might sound like total naiveties, but I’m sure they’ll happen,” said Sara during one of our phone conversations. Following an earlier visit to the small *comuni* (‘municipalities’) of Ussaramanna and Villanovaforru in the Southern part of Sardinia, the *ènostra* President eagerly awaited her upcoming trip to the region. At the time of our conversation, *ènostra* had already begun the process of planning and implementing various community energy projects throughout the country, including those in the two Sardinian towns. Between the end of 2019 and the beginning of 2020, the Italian parliament initiated the partial transposition of the EU recast Renewable Energy Directive or RED II (Directive 2018/2001) and the recast Internal Electricity Market Directive or IEMD (Directive 2019/944) into national law. This effort was part of the broader Clean Energy for All Europeans Package (CEP). The directives outlined guidelines to promote the community energy sector across all Member States, intending to consolidate existing community energy initiatives while maintaining flexibility for emerging organisational models based on national legal frameworks (Roberts 2021). Specifically, RED II introduced the first legal definition of a renewable energy community as an entity. Its text reads:

Based on open and voluntary participation, [...] autonomous, and [...] effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity; the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities; the primary

purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits (Directive 2018/2001: 22).

The legal guidelines established by RED II aimed to ensure that community energy projects maintained a strong local focus. RED II aimed to actively engage civil society in decarbonising and decentralising the energy system while ensuring that local communities were the primary beneficiaries. Furthermore, RED II outlined specific configurations to facilitate citizen participation, including ‘renewable self-consumers,’ ‘jointly acting renewable self-consumers,’ and ‘renewable energy communities,’ which I will generally refer to as ‘renewable energy collectives’ (RECs) for simplicity.

As discussed in Chapter 1, *ènostra* stood out as a key actor at the national level, engaging in the initial policy consultations in 2018, liaising with national policymakers, and actively participating in initiatives to disseminate information on the topic. *ènostra* assembled a dedicated team for this, which I will call the ‘REC team,’ led by Sara. The *ènostra* President believed that RECs seamlessly aligned with *ènostra*’s objectives, prioritising creating social and environmental impact over financial profits. As outlined in the cooperative’s 2022 annual report, RECs serve the purposes of *ènostra*, which include,

on the one hand, contributing to our country’s energy transition towards widespread renewables, serving as an innovative example and inspiration for other market players and potential decision-makers, demonstrating that another democratic and solidarity-based energy system is possible. On the other hand, to contribute to sharing the benefits produced within the extended community of members, generating positive impacts on the broader society where feasible (*ènostra* 2022: 2).

As hinted at during our phone call, Sara firmly believed implementing RECs would strengthen community bonds, catalysing positive social and economic outcomes. “I’m

telling you, I'm sure there'll be folks who find their place in the community, folks who didn't have it before, and they'll get their voices heard and respected," Sara emphasised. In the context of RECs, she continued, "energy becomes an excuse for *condivisione* ('sharing') and a way to break down barriers." Sara held unwavering optimism about the social relevance of REC initiatives, viewing them as a means to develop local economies, create employment opportunities, improve infrastructure, and address poverty. For her, RECs were about fostering solidarity — a concept she associated with sharing. However, in the field, I encountered multiple interpretations of sharing. In the normative framework of the REC policy, 'sharing' takes on a prominent techno-economic character. In this case, 'sharing' reveals the associations engineers and policymakers make between efficient energy use and the economic benefits end-users could gain from that.

In this final chapter, I will guide the reader into a specific ethnographic space: the imagining and design of REC projects. Following the *ènostra* REC teams as they navigate the policy landscape, I depict the unfolding visions of energy futures and the values associated with 'community' and 'commonality.' I explore how the cooperative's ethical views nurture the imagination of an equitable, decentralised energy system before delving into the normative domain of the policy to reveal the sociotechnical imaginary that unfolds. Then, I investigate a specific ethical disposition that emerges in the engineering design of REC projects, which aligns with the policy's techno-economic philosophy. In doing so, I attend to my interlocutors' sense-making and articulation of their ethical commitments in everyday work.

### Engaging with the future: *ènostra* and the renewable energy collectives

Upon my arrival in Italy in the autumn of 2021 for the first period of in-person fieldwork, I joined the *ènostra* REC team's Whatsapp group. The following people composed the REC team: Sara Capuzzo, the President of *ènostra*; Christian, an engineer who specialised in photovoltaics; Chiara Brogi, dedicated to community

engagement and relations with municipal authorities; and Sara Gollessi, who focused on opportunities for collaborations and funding at the European level. The four *ènostra* workers were situated in various locations. Sara Capuzzo, residing in Padua in northeastern Italy, primarily travelled for meetings and occasionally worked from the *ènostra* coworking space in Milan when not working from home. Christian worked from his office in Gioia Tauro, located in the Southern Italian region of Calabria. Chiara, who had recently relocated from her hometown in Montecatini, Tuscany, was based in Barcelona. Meanwhile, Sara Gollessi worked from her home office in Genoa, in the northeastern Liguria region. The Whatsapp group served as the primary social media platform for the team, facilitating daily communication and collaboration on matters related to the development of energy collectives. The group's distinctive appearance immediately caught my attention upon entering the app. Named "Dream Team" and adorned with a photo icon featuring a wooden slate signpost bearing the white-painted inscription *vietato calpestare i sogni* ('do not trample on dreams'), it vividly reflected Sara's vision of the REC team's work. In various conversations, Sara emphasised that developing RECs required passion, hard work, and a "touch of madness." In Chapter 2, I analysed dreaming in relation to the ambition of transforming *ènostra* from a grassroots association into a community enterprise. After detailing how anthropologists have explored the connections between the oniric realm and capitalism, I contended that *ènostra*'s entrepreneurial dream involved harmonising business objectives with pursuing ethical and social goals.

Sara's vision of REC development suggested an ambition aligned with the founding principles of *ènostra*. By the end of my fieldwork in the summer of 2022, REC development had become a central activity for the cooperative. *ènostra* spearheaded numerous projects, assessing multiple monthly applications from municipalities, local associations, and businesses seeking to engage the cooperative as a developer. The REC team expanded from three to six members and continued to grow in the subsequent months. Throughout this period, Sara's colleagues often referred to her as a *visionaria* ('visionary') who anticipated a surge in public interest in RECs. Despite

scepticism within the cooperative, she advocated for REC development to become a central business activity for *ènostra*. Some, particularly among the board of directors, viewed RECs as an area where pioneering was unnecessary. They dismissed the initiative with statements like “Let the market develop them, and if they prove promising, we can step in and emulate others.” During fieldwork, it became evident that the revenue generated by these projects for the cooperative was not substantial. At the annual meeting in June 2022, Sara reiterated her perspective, emphasising that the primary goal of RECs was not income generation but achieving broader environmental, social, and economic impact. Besides her commitment to ethical business, Sara’s vision was fuelled by optimism and excitement about the potential of RECs to lead the country to a decarbonised and equitable energy future.

Energy and futures are intricately interwoven in current narratives, aspirations, and concerns. As Sarah Pink, Nathalie Ortar, Karen Waltop, and Simone Abram argue, “to understand how and where energy is significant and meaningful to the lives of people, non-human species, and environments we need to go beyond the conventional anthropological focus on the present immediately related to the past” (Pink et al. 2023: 1). Energy futures are not a recent preoccupation; traditionally, they have resided within realms predominantly influenced by scientists, policymakers, activists, and individuals possessing expertise who strived to articulate persuasive arguments regarding the optimal energy paths societies should pursue. A blatant example is provided by the World Energy Council’s (WEC) so-called scenarios, a framework for decision-making based on forecasting and modelling and “designed to be used as a set to explore and navigate what might happen, not what should happen or what we want to happen” (WEC n.d.). While energy scenarios are generally portrayed as technocratic and neutral, they have “often been used for partisan purposes to push through, or oppose, certain energy developments” (Midttun & Baumgartner 1986: 219). Anthropology is primed to explore the manifold connections between energy and futures, unveiling the diverse manifestations of these futures. Energy futures are not limited to a small group of experts; they are forecasted, projected, and influenced

by multiple entities. Energy futures are envisioned, desired, feared, planned, and anticipated across various locations by different communities and individuals operating at different temporalities and scales. Sara's vision of RECs is just one of numerous potential energy futures. As it will emerge from the following sections, these visions are shaped by intersecting social and economic values.

#### Harnessing solidarity: 'Sharing' in the perspective of REC visionaries

In December 2021, I joined *ènostra's* team to visit Biccari and Santeramo in Colle, two *comuni* in Apulia, Southern Italy. The local administrations had invited residents to hear about REC projects they were planning along *ènostra*. Similar to earlier events in Sardinia that year, the primary objective for *ènostra* was to elucidate the projects' goals and development plans and to encourage applications for new projects from potential members. Biccari is a quaint town nestled beneath Mount Cornacchia, one of the Daunian Mountains delineating Apulia's borders with the neighbouring regions of Molise and Campania. Sara and I arrived on a train to Foggia, the closest accessible location by public transport, a half-hour drive from our destination. Upon reaching Foggia train station, Antonio, the Biccari Municipal Councillor overseeing the project, greeted us and chauffeured us to his town, following a brief pit stop at a nearby pizzeria. As the cityscape faded behind us and we entered a vast valley surrounded by rolling wheat hills, I was captivated by the changing landscape. The road traversed a hilltop adorned with wind turbines. Once a hub for methane extraction, the Daunian Mountains had shifted away from hydrocarbons in recent years, embracing the installation of wind turbines. Antonio, noticing my fascination, proudly mentioned that Biccari boasts two wind parks, both established by a local company that the Municipal Council intends to engage for the photovoltaic facilities required for the energy collective. The latest data on the state of the art of RECs in Italy suggest all projects were powered by solar technology (De Vidovich et al. 2023). While there has not yet been a comprehensive study on the connection between solar and RECs since the transposition of the EU directive, conversations with my interlocutors suggested



that the favourable aspects of solar technology include the small scale of projects and the relatively brief authorisation procedures for facilities.

Besides energy production, Biccari gained renown through the so-called “1 Euro Houses” project. This initiative, promoted by different municipalities across Italy, was aimed at improving “the housing environment and reclaiming our cultural identity by reviving the small abandoned centres or redeveloping buildings in a state of abandonment” (Case a 1 Euro 2021: n.p.). By offering properties at a symbolic starting price of €1, Town Councils aspired to signal the urgency of repopulating marginalised areas of the country. Indeed, Biccari is one of the most affected *aree interne* (‘inner areas’). The term *aree interne* refers to municipalities positioned at the farthest periphery, facing challenges related to access to crucial services like healthcare, education, and mobility (Lucatelli et al. 2022). Additionally, these areas experience the country's highest unemployment, poverty, and emigration rates. During the REC presentation event, the Mayor of Biccari, Gianfilippo Mignogna, highlighted that the initiative would kick off a transformative journey, potentially empowering residents in the ecological and energy transition. In a burst of biting humour, Gianfilippo noted the chilly atmosphere in the room named *Bollenti Spiriti* (lit. ‘Boiling Spirits’). “This is a paradox,” he emphasised, “but our land is ripe with paradoxes.” Then, he continued, “There’s another paradox; we inhabit a beautiful yet fragile land rich in untapped opportunities. It’s an energy paradox. We reside in one of the most energy-productive areas yet economically challenged.” Pointing out the paradoxes of what scholars define as ‘sacrifice zones,’ that is, areas devoted to developing energy projects often sustaining national development at the expense of local communities (Bainton et al. 2021), Gianfilippo expressed his indignation. He then ignited the crowd by asserting that, to reverse this trend, residents need to recognise their strategic position in the energy landscape and cease being mere spectators. According to the Mayor, the REC project aligned perfectly with this perspective, aiming to place locals at the forefront of national and local energy strategies.

Before yielding the floor to *ènostra*, the Mayor explained why the Council selected *ènostra* as a developer for the REC. He stressed that given the high technical expertise required for constructing renewable energy installations, the Council recognised the necessity of collaborating with experts. However, he clarified that the search went beyond mere competence; they sought partners who shared common goals, visions, and a unified approach to energy (Figure 29). The Mayor expressed genuine emotion and reminisced about meeting Sara several years earlier at the School of Cooperation in an Alpine village. Their immediate connection stemmed from a shared fascination with the possibilities of cooperation and its potential to address the needs of small municipalities, primarily those he referred to as “fragile communities.” Sara and Gianfilippo were driven by a shared view grounded on ideals of mutuality and collaboration that resonated with Sara’s idea of *condivisione*. They firmly believed that mutuality and collaboration should be the bedrock of an energy community. As the Mayor emphasised, “We are not just building photovoltaics. We are trying to build a community path. Solar panels are a byproduct of our ability to be a community and to hold together because the economic benefits will only result from our capacity to stay together.” For Gianfilippo and Sara, solar panels were not just the technological basis for enabling RECs but represented the potential for establishing communal bonds rooted in solidarity. In their view, solar energy could generate new social and political conditions. This view rests on the concept of solararity, as discussed in Chapter 5, which promises to create a better, fairer, and more just world through solar technology.



**Figure 29.** Sara Capuzzo glancing towards Mayor Gianfilippo Mignona at the public presentation of the REC project. Biccari, December 2021.

*Credit: Author.*

The capacity of solarity to propel the imaginations of a community-based energy future is not new to scholarly interest. Shane Brennan (2017) describes the experience of Soulardarity, a community organisation led by African American residents in Highland Park, Michigan, that emerged in 2011 when the local utility company removed the town’s streetlights due to declining revenues. In response, activists from the community undertook the initiative to install collectively-financed solar power lights, which are owned and managed by residents. According to Brennan, Soulardarity is an example of “visionary infrastructure,” which he describes as “a form of material and social practice in which the collaborative work of building critical infrastructures is inseparable from the imaginary work of collectively envisioning the future with and through those infrastructures” (Brennan 2017: 176). According to Brennan, visionary infrastructures serve two primary functions. Firstly, they establish

a sense of ‘us’ by bringing together a community of engaged participants, involving organisation, motivation, and mobilisation. Secondly, they enable a process wherein this community can envision and craft alternatives to the current system, encompassing speculative, imaginative, and future-oriented aspects. In the context of the RECs, *ènostra* and its clients (i.e., Town Councils) shared a vision of communities as spaces where people could collaborate to create an alternative infrastructure that addresses local energy needs and socio-economic challenges.

As advocates of RECs, *ènostra* and the Town Councils aimed to cultivate a sense of unity, emphasising social empowerment for marginalised communities and fostering solidarity among individuals. I term this process ‘harnessing solidarity.’ Harnessing solidarity was a process steered by a vision of solar and, more broadly, renewable-powered community initiatives as endeavours aimed at advancing equality and social justice. As previously highlighted, Biccari was commonly included among the *aree interne* in national narratives on local development. *ènostra* proudly showcased the REC in Biccari as a project with significant potential for social impact. The local Town Council specifically identified a social housing complex with tenants among the town’s lowest-income residents as the site for the plant that would power the REC project. During the presentation, the Mayor emphasised the symbolic reason for choosing the social housing unit as the initial location. For him, this represented an opportunity for the town’s community to collaboratively address the energy costs of families, starting with those in most need.

The day after the event, the *ènostra* REC team and I returned to the venue to set up an information desk to gauge residents’ interest in the project. Alessandro, a friend of the Mayor and a collaborator of the local community cooperative, arrived early at the desk. Already familiar with *ènostra*, Sara engaged him in a conversation. During their chat, as Alessandro’s interest in the project became evident, Sara encouraged him to consider joining the future Board of Directors. The *ènostra* President later told me she saw a *spirito aggregatore* (‘community-building spirit’) in Alessandro, an ability to

unite people. Flattered and somewhat embarrassed, Alessandro showed further interest and inquired about the number of operational REC projects in the country. At that time, the only operational REC nationwide was in Magliano Alpi, Piedmont, an experimental project led by the Polytechnic University of Turin and the local Town Council (Magnani & Cittati 2022). Upon receiving this information, Alessandro commented, “The North is always a pioneer, isn’t it?” but Sara contested, “In my view, the South has more potential because of the sun and solidarity,” once again affirming the view that RECs are not just about technology but also social values. In her view, Southern Italy was characterised by a more profound sense of solidarity, a sentiment she substantiated by citing the case of San Giovanni a Teduccio. A suburb of the municipality of Naples, San Giovanni a Teduccio was home to the inaugural project of a network called *Comunità Energetiche Rinnovabili e Solidali* (‘Renewable and Solidary Energy Communities’). The network targeted “contexts with strong criticalities, both environmental and socioeconomic, to build processes of participation and social innovation capable of triggering a profound change in the territories, with the perspective of greater environmental and social justice” (Legambiente 2021: n.p.). The REC initiative was sponsored by Fondazione per il Sud (FpS), a non-profit organisation dedicated to social projects in Southern Italy, and Legambiente, the country’s most prominent and widespread environmental association. In an interview, the Legambiente representative who supervised the project pointed out that San Giovanni a Teduccio was a working-class, post-industrial suburb neglected by institutions, facing severe pollution, extreme poverty, and alarming crime rates. Like other parts of the country, the State’s withdrawal from social service programs had led to the increased involvement of non-profit organisations and a surge in voluntarism. In this Neapolitan suburb, Legambiente teamed up with Fondazione Famiglia di Maria (FFM), a local non-profit association that provided educational support to children from economically disadvantaged families, for environmental education projects. The REC was an outcome of this collaboration.

For Sara, RECs like the one in San Giovanni a Teduccio embedded the spirit of the alternative energy future she envisioned. She emphasised her view in the Facebook post quoted below, which featured the image of Gennaro, the child who became the project's symbol (Figure 30):

San Giovanni a Teduccio hosts Italy's most exciting and revolutionary Renewable Energy Community [...]. Its solidarity-based nature demonstrates that avoided CO2 [emissions] and energy bill savings, perhaps, are the last indicators to look at when we measure the impacts of such initiatives at the local level.

[...] Gennaro, his peers, the families and the promoters have rewritten the neighbourhood's future. Once again, beyond all, youths are teaching adults how to dream big and not to set limits on change. Thank you, Gennaro!

#solidaryenergy #energycommunities #energydemocracies



**Figure 30.** Facebook post shared by Sara Capuzzo on her profile praising the San Giovanni a Teduccio REC.

*Credit: Sara Capuzzo.*

For Sara, the San Giovanni a Teduccio's REC project was an example of how organisations acting as promoters harnessed the residents' solidarity and built a sense

of belonging in the community. According to the ènostra President, local organisations, associations, and Town Councils were primed to harness that solidarity, which could not be taken for granted. As she shared during one of our conversations, the ènostra REC team encountered situations where potential members were primarily focused on individual economic gains rather than contributing to the social impact of the community and its most vulnerable components. Sara envisioned key actors like representatives of local Town Councils and non-profit organisation as pivotal to “harness solidarity” among local communities and ensure that the REC projects would foster social and economic change processes in marginalised areas.

In this section, I examined the concept of ‘sharing’ as embraced by visionaries — individuals and organisations actively engaged in implementing REC projects at the local level. I contended that these visionaries perceived ‘sharing’ as a catalyst for fostering solidarity within local communities. Central to this perspective is the view of RECs as an alternative energy infrastructure that facilitates collaboration to address local socio-economic issues. As such, this notion of ‘sharing’ resonates with the ethical commitment of ènostra, particularly the REC team, in their pursuit of the social good. In the following sections, I analyse how these techno-economic considerations influence the REC team’s operations, highlighting how ethical commitments manifest differently in this context.

### Energy sharing: The sociotechnical imaginary of RECs

The vision of a REC-based energy infrastructure evolved against the backdrop of European and national policy innovations, which many perceived as efforts to revolutionise the current energy system and pave the way for a radically transformed energy future. This section will illustrate the sociotechnical imaginary underpinning the REC policy framework. I will consider the perspectives of politicians, regulators, and engineers who crafted the policy, whom I collectively call ‘bureaucrats.’ I will refer to these perspectives as a ‘sociotechnical imaginary’ to distinguish them from the



views of REC visionaries presented above. I recognise that, like energy futures, sociotechnical imaginaries can be multiple, have different scales, be held by diverse actors, and, to various extents, travel across such scales (Smith & Tidwell 2016). However, with sociotechnical imaginary, I refer solely to the views of bureaucrats to stress being “collectively imagined forms of social life and social order reflected in the design and fulfilment of nation-specific scientific and/or technological projects” (Jasanoff & Kim 2009: 120). Supporting the formulation of Italy’s REC policy, this sociotechnical imaginary underpins the techno-economic principle of ‘energy sharing’ at the core of the policy. This section unveils the bureaucratic view of how citizens should morally engage with energy within a new sociotechnical system.

In 2020, Italy began transposing the EU directives into national legislation.<sup>1</sup> Following RED II, the first stage of the legislative transposition provided a preliminary policy framework for the collective production, consumption, storage, sale, and sharing of renewable energy through RECs. The policy framework aimed to enable legal partnerships between citizens, local governments, and small and medium enterprises (SMEs) to install renewable energy facilities collectively, thereby facilitating their participation in the energy market (Sweeney, Treat & HongPing Shen 2020). Nevertheless, RED II stipulated that RECs should primarily focus on delivering environmental, economic, or social benefits to their stakeholders or members at the community level, prioritising these over financial gains (Zulianello, Angelucci & Moneta 2020). As Chiara Candelise and Gianluca Ruggieri (2021) point out, the policy served a dual purpose. Firstly, it sought to decarbonise and enhance the energy infrastructure through localised electricity exchanges, thereby minimising the impact on the main grid. Secondly, it aimed to facilitate energy savings for households and businesses, thereby addressing escalating levels of energy poverty and fostering a culture of energy efficiency.

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<sup>1</sup> The legislative process continued through the following years and was completed at the end of 2023.

Before exploring the bureaucrats' sociotechnical imaginary, it is worth clarifying that sociotechnical imaginaries are not the same as policy agendas. The latter refers to formal or tacit action programmes often focused on specific issues, goal-oriented, politically accountable, and instrumental (Jasanoff 2015). However, they "reside in the reservoir of norms and discourses, metaphors and cultural meanings out of which actors build their policy preferences" (Jasanoff & Kim 2009: 123). In November 2021, the World Energy Council's (WEC) national panel and the Energy Centre of Politecnico di Torino organised the first national conference of the Italian Forum of Energy Communities (IFEC), a network of actors from research institutes, businesses, industry, and government to support the development of Italian RECs (WEC Italy 2021). Like several other events I attended in 2021, the conference served as an opportunity to assess the current situation in Italy, featuring the participation of key figures in the emerging REC sector, including academics, energy companies, local Town Councils, and national institutions (Figure 31). One of the invited speakers was Senator Giovanni Giroto, President of the Italian Senate's Commission for Industry, Commerce, and Tourism and representative of the Five Star Movement (M5S), the political party front-running the campaign for REC policy.<sup>2</sup> In his speech, Senator Giroto maintained that Italy is "at the dawn of an energy community era," anticipating a steep increase in the number of projects.

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<sup>2</sup> During a press conference in November 2021, the party proudly outlined the evolution of its policy, tracing it back to Beppe Grillo's (the founder of M5S) visits to Germany's pioneering experiments in 1998. Renewable energy has consistently been a crucial element of the party's political programme. Notably, M5S former Member of the European Parliament (MEP) Dario Tamburrano authored the Amendments to the RED II Directive, subsequently introduced during the Conte II Cabinet, the most recent M5S administration.



**Figure 31.** First Italian Forum of Energy Communities (IFES) conference. Turin and online, November 2021.

*Credit:* Author.

As previously mentioned, the Italian Parliament was yet to lay out the definitive transposition of the EU Directives, and the end of 2021 marked the completion of the first stage of REC development nationwide. Lawmakers and regulatory authorities envisaged this opening phase as an experimental period to test RECs' potential impacts and critical aspects (RSE 2021). Gestore dei Servizi Energetici (GSE), the national energy policy body that laid out the technical regulation, indicated two essential thresholds. Firstly, the perimeter of each project should be defined by low and medium-voltage substations (also referred to as 'secondary substations'). Secondly, the maximum power capacity of the energy facility should be 100KWp (GSE 2020). Put simply, these technical parameters determined that the scale of a REC project was relatively small, typically the scope of a neighbourhood. While visionaries like those I described earlier in this chapter saw the neighbourhood or a small town as an ideal scale for a REC project, they believed that adjustments to the policy were necessary to upscale RECs.

At the IFEC conference, industry actors raised concerns about the technical constraints of the initial policy framework. They emphasised how it could hinder the expansion of RECs. This concern prompted policy recommendations to shift to medium and high substations, also known as ‘primary substations.’ The subsequent legislation broadened the scope of REC projects, allowing for increased power generation capacity, specifically enabling energy facilities up to 1MWp. According to projections from the Energy & Strategy Centre at the Polytechnic University of Milan, around 40,000 RECs will be established in Italy by 2025, involving approximately 1.2 million households and 200,000 other end-users, including businesses and governments. Another forecast suggested that by 2030, RECs would contribute to an electricity generation capacity of 17.2 GWh, representing roughly 30% of the total energy generation from renewable sources outlined in the National Climate and Energy Plan (RSE 2021). These energy scenarios were integral to a national sociotechnical imaginary endorsed by bureaucrats such as energy regulators, industry professionals, and researchers. By emphasising technical aspects, this sociotechnical imaginary situated RECs at the core of an energy strategy aimed at expediting the decarbonisation of the infrastructure.

I will provide some context to help the reader understand my argument better. The transposition of EU directives into national law was a component of the broader *Piano Nazionale Integrato per l’Energia e il Clima* (lit. ‘Integrated National Energy and Climate Plan’) or PNIEC. The Plan charted Italy’s 2030 objectives regarding renewable generation capacity, energy efficiency, security, market competitiveness, sustainable development, and mobility. The strategy established a target of achieving 55% of gross final energy consumption from renewable sources by 2030, emphasising electricity as a critical contributor to renewable growth. According to the PNIEC, renewable energy sources would mainly reach the 55% target through photovoltaics and wind power. In this context, RECs represented a paradigm shift poised to transform Italy’s energy production from a limited number of concentrated plants (primarily thermoelectric,

hydroelectric, and coal-powered) to many distributed facilities. Moreover, this paradigm shift was envisioned within two decades (PNIEC 2019). The PNIEC acknowledged the pivotal role of the end consumer in promoting renewable integration within the energy system alongside objectives such as enhancing energy efficiency, reducing CO<sub>2</sub> emissions, ensuring energy security, and providing improved economic and financial opportunities for families and businesses. Livio de Santoli (2011), a prominent Italian engineering scholar and proponent of RECs, views distributed energy generation as a metaphor for our future lives. De Santoli believes distributed energy generation embodies a way of thinking grounded in solidarity and responsibility, which would foster people's feelings of belonging to a community with shared ideas and goals. For the scholar, the possibility of building energy collectives rests on the responsibility of individuals who "should be unblamed but made responsible at the same time: it is necessary to entrust them and assign them an active role in society [...]. Energy could implement this strategy through a model that will also, if not primarily, be an ethical response to the decay we live in" (de Santoli 2011: 140). While this perspective identifies solidarity as a critical element in the future energy systems, it also introduces another crucial aspect: responsibility. Concerned with the correct functioning of energy systems, this perspective — which I describe as techno-economic — posits that the decentralisation of energy systems not only transforms the dynamics of end consumers' interaction with energy (i.e., involving them in both production and consumption phases) but also leads to a redistribution of tasks and responsibilities within the infrastructure (Kloppenborg & van Vliet 2018). In this view, the responsibility for managing energy systems would no longer be the sole domain of governments and companies but would be reallocated to households and individual consumers (Thronsen & Ryghaug 2015). The same rationale forms the basis of the sociotechnical imaginary of RECs, as I will show in the following paragraphs.

During a webinar I attended in 2021, Luca Barberis, engineer and Director of the GSE Energy Efficiency Unit, emphasised the pivotal role of the *consumatore consapevole*

(lit. 'aware consumer') in the current phase of the transition. "We are asking the consumer to take on a more active role," Barberis stressed. "How does this active role come into being? To begin with, by making good use of tools and solutions that allow consuming more efficiently, thus consuming less and spending better." For the GSE engineer, the active role of end-users lies in taking on an efficient energy consumption behaviour to facilitate distributed energy generation. During his presentation, Barberis linked RECs to *condivisione consapevole* ('aware sharing'). He specifically used the term *consapevole* ('aware') because, as he articulated, "sharing between the generation and consumption phases is a must when it comes to the electricity system. We must keep this balance." The GSE engineer underscored the importance of being cognisant of the equilibrium between energy production and consumption, particularly in a renewable energy-powered electricity system. He emphasised, "I don't know to what extent you can perceive it today, but this will become absolutely central in the near future." Barberis evoked the sociotechnical imaginary of an electricity system primarily powered by renewables, which are highly variable due to their dependence on intermittent and unpredictable natural resources. In this context, flexibility is crucial, as I will clarify in the following paragraph.

The International Energy Agency (IEA) defines flexibility as an energy system's ability to manage the variability and uncertainty of demand and supply, particularly in the case of renewables, reliably and cost-effectively at all relevant timescales (IEA 2018). Honing the management of electricity supply and demand is the ultimate objective of the so-called 'smart grid' (a term also used in Italian). Faced with the challenges of the transition to low-carbon sources, ensuring reliable and uninterrupted access to energy, and the need to update and replace ageing infrastructures, several countries are adopting new approaches for the advancement of 'intelligent' electricity systems (Bakke 2016; Bulkeley et al. 2016). 'Smart grids' are at the core of the energy industry's response to these challenges, offering a solution to enhance the flexibility of demand by allowing the adjustment of electricity consumption practices to align with the changing patterns of variable renewable generation (Angel 2023). To this aim, 'smart

grids' deploy various information and communication technologies, such as smart meters and appliances, that enable seamless data exchange among consumers, utility companies, and grid operators. For their ability to infiltrate the intimacy of domestic life and influence individuals' energy behaviour, some scholars see 'smart grids' as a form of governing neoliberal subjects (Levenda et al. 2015; Bulkley et al. 2016). From this perspective, 'smart grids' are seen as a way to rearticulate the end-user's energy behaviour by encouraging efficient energy consumption practices that would result in savings on their bills. As such, end-users are envisioned as self-governing subjects who manage their lives according to economic rationality. In the following paragraphs, I will show how the sociotechnical imaginary of RECs in Italy presupposes a neoliberal subjectivity that mirrors that of the 'smart grid,' where 'good' energy conduct articulated the end-user's economic rationality with their responsibility for grid management.

Some bureaucrats interpreted RECs as 'virtual power plants' that engaged with the national electricity grid, contributing to grid stability by decentralising supply and demand management into smaller units (Patrucco 2021a). In this manner, RECs would function as local energy units, which could interact with the main grid as required, for instance, ceasing to draw electricity from it during peak periods. In various speeches, Senator Giroto commended RECs for their potential to decrease the current expenses associated with an imbalanced grid and the prospective costs of its expansion. He characterised the Italian electrical grid as "an extensively serviced and redundant infrastructure," boasting over 70,000 kilometres of high-voltage lines. From this perspective, aligning production and consumption sites closer would diminish the imperative to augment this infrastructure, comprising extensive lengths of wiring, numerous transformer stations, and the myriad of sub-transformers and devices essential for its operation. From this point of view, collectives of energy end-users were called into being as localised, 'virtual' components of a broader energy infrastructure. In this context, virtuality represents a key element to understand better the connection

I make between the neoliberal subjects of the ‘smart grid’ and the ‘responsible consumers’ envisioned by REC bureaucrats.

From the bureaucrats’ perspective, RECs would operate as virtual grids connecting multiple production and consumption units at the local level (Figure 32). ARERA, the national regulatory authority, recognised this model as the most efficient system for planning and managing the public grid while ensuring its security (Barroco et al. 2020; RSE 2021; Krug et al. 2022). In other words, RECs would prevent further grid expansions and mitigate the risk of overloads by maintaining energy exchanges at the local level. As such, RECs would take on a similar role as the ‘smart grid,’ with end-users providing a way to optimise energy flows within the public grid and improve its flexibility. RECs would practically remain physically connected to the main infrastructure since the public grid terminates at each end-user’s connection point. However, RECs would be virtually connected to the public grid through a commercial agreement with the energy authorities that rewards their optimisation services. In this context, virtuality bears a specific economic significance that resonates with what I discuss in Chapter 4 in relation to the moral economy of *ènostra* ‘prosumers.’ Nonetheless, while for *ènostra* prosumers virtuality was an economic arrangement that ‘disconnected’ members from the electricity infrastructure’s market dynamics, bureaucrats saw virtuality as an economic arrangement that would integrate end-users with the infrastructure.





**Figure 32.** Visual representation of a ‘virtual power plant.’

*Credit: Qualenergia (2023).*

The economic arrangement that would virtually connect end-users to the public grid lay in the concept of *energia condivisa* (‘energy sharing’). To encourage energy exchanges to occur locally, thus enhancing grid flexibility, regulators implemented feed-in tariffs as incentives for energy sharing. *Energia condivisa* was defined as the minimum hourly ratio between the electricity generated and supplied to the grid by any renewable energy collective’s power plants and the electricity consumed by its members (Zulianello et al. 2020).<sup>3</sup> In simpler terms, *energia condivisa* would economically reward RECs based on their simultaneous production and consumption of electricity within a specified timeframe. As a researcher from Elemens, a consulting

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<sup>3</sup> The regulation implemented a threefold payment structure. The primary component is the feed-in tariff for energy sharing, amounting to €100-110 per ‘shared MWh.’ Additionally, there was a modest reimbursement for the initiation of system operations, set at €8 per ‘shared MWh.’ Furthermore, RECs had the option to sell surplus energy to GSE at market prices which, as discussed in Chapter 4, are subject to fluctuations.

firm that collaborated with the energy authorities in the definition of the feed-in tariffs, said during a webinar I attended in July 2021, “we believed that the choice to incentivise the *energia condivisa* is entirely consistent with the philosophical premise on which the whole model rests: a model that, besides pursuing decarbonisation goals, should match consumption with production.” Diverging from the solidarity-based concept of *condivisione* discussed earlier, *energia condivisa*, as defined in the REC policy, emerged as a techno-economic principle aimed at encouraging the active involvement of end-users in grid management. The decentralisation of supply and demand management enabled by RECs positions electricity end-users as market actors who are encouraged to maximise financial gains via intensive mentoring and rationalising their energy behaviour. The REC policy envisioned energy participants as capable of changing their daily energy behaviour to align with a specific definition of good energy conduct.

In her ethnographic study of off-grid communities in Wales, Elaine Forde (2017) illustrates how people’s everyday and domestic practices are shaped by synchronisation with the rhythms of power generation, dependent on temporal and seasonal energy availability. Unlike end-users relying on the grid’s flattening effect, that is, the grid’s ability to smooth out and regulate fluctuations in the supply and demand of electricity, off-gridders adapt their energy usage to cope with the variability of energy production. Forde contends that off-gridders “perform an energy ethics which is very similar to the sort of idealised ‘green’ energy consumer that has entered public consciousness in more recent times and is promoted in the discourses of policy-makers” (Forde 2017: 84). However, argues that, while off-gridders show the same characteristics of self-governance attributed to what she calls the ‘green’ energy consumers, her interlocutors were prompted by a desire to circumvent reliance on public grids and what they perceived as unethical energy supply chains. Contrarily, Italian bureaucrats viewed market rationality as fundamental to the changing energy behaviour of REC end-users, who are seen as motivated to contribute to the efficient operation of the public grid by economic incentives. Ultimately, from their perspective,

economic interests would force REC end-users to engage in good energy practices to enhance the public grid's operations.

## Engineering ethics and techno-economics in REC design

In this section, I will focus on the engineering endeavours pivotal to designing a REC project to show how the sociotechnical imaginary of RECs and its *energia condivisa* principle hinged on project design. The design of a REC is a multifaceted process that requires expertise in legal, social, financial, and engineering domains. Existing literature on community energy has predominantly focused on the legal, social, and economic aspects, often treating them as separate domains and overlooking the engineering dimension. By underscoring the pivotal role of engineering in REC design, I recognise that distinguishing between domains often oversimplifies the intricate interplay between technical elements and social relations (Bijker & Law 1992). As some STS scholars emphasise, engineering is fundamentally a political practice, given that the technologies and structures conceived and constructed by engineers can either perpetuate existing forms of power or establish new ones (Winner 1990; Mitcham 2014). In *ènostra's* REC design, the techno-economic principle of the REC policy intersected with the concept of *condivisione* as social solidarity at the base of Sara's vision.

### Engineering ethics: Shaping technology, shaping society

Understanding what being a “good” engineer means exploring the profession's values, responsibilities, and expectations in specific settings. This section builds on the idea that engineering is always shaped by its specific social and cultural contexts, as noted by Gary L. Downey, Juan C. Lucena, and Carl Mitcham (2007). Their work highlights how the ethical trajectory of engineering appears to evolve along singular trajectories across different countries, influenced by local intellectual traditions and societal values. For example, in countries like Japan and Germany, engineers' responsibility

and professional ethics are considered to be on par with their need for solid foundations in scientific and mathematical principles and the skills to apply technological solutions. This is reflected in the educational criteria developed by the bodies that oversee engineering training in such countries. For instance, the Japanese Accreditation Board for Engineering Education (JABEE) ranks the understanding of the societal impacts of engineering on a global scale higher than some of the learning outcomes typically associated with mathematical and scientific training. Similarly, the Fundamentals of Engineering guidelines from the Association of German Engineers notably emphasise engineers' responsibilities in technology assessment, explicitly stressing the importance of evaluating and addressing the impacts and effects of technological advancements. Conversely, in France, formal education in engineering ethics appears to be minimal formal education in engineering ethics and the engineering chart developed by the National Council of Engineers and Scientists seems relatively unknown among professionals. According to Downey and colleagues, the distinct educational priorities that shape engineering curricula are to be found in the intellectual traditions that influenced the development of the engineering professions in each country and the moral values associated with it. The scholars emphasise that, in France, engineers enjoy a longstanding elite status as engineering education is regarded as the established pathway to social and professional success, alongside medicine and architecture. Their profession also yields engineers a higher moral standing, validated by their successful participation in a thorough educational pathway. To become engineers, students in France must complete a math- and science-focused high school diploma, then two years of intensive preparatory classes, before competing for admission to elite engineering schools through a high-stakes written and oral exam, with results published publicly. By enrolling in an engineering school, future engineers enter a system where they ultimately take on roles as leaders and representatives of French society, thereby becoming recognised drivers of progress. This is particularly relevant to the so-called state engineers, that is, those employed by the national government. For Downey and colleagues, the association of engineers' morality with their engagement with and completion of such a demanding

training system stems from a particular notion of progress “as advancement towards an ideal future [that] had found acceptance among the literate public long before the French Revolution” (Downey et al. 2007: 467). This concept of progress is grounded in an intellectual tradition tracing back to the 17<sup>th</sup> century and the Cartesian view idea that nature could be viewed as a vast mechanism, understandable through mathematical analysis. Since the foundation of the prestigious *grandes écoles* in the 18<sup>th</sup> century, engineering educators in France have ranked mathematical knowledge above all else. For French engineers, proving their capability, dedication, and discipline in mastering the mathematical foundations of engineering has come to signify possessing the moral character necessary to earn the nation’s trust as innovators and drivers of progress (Downey & Lucena 2004).

The French experience is particularly significant because of the historical factors that influenced the development of the engineering profession in Italy. As I will explain, the period of French occupation in Italy during the early 19<sup>th</sup> century played a crucial role in shaping the professionalisation of engineers, mainly through establishing formal engineering curricula and institutions. In Italy, the emergence of the engineering profession occurred throughout the industrialisation process of the 19<sup>th</sup> and early 20<sup>th</sup> centuries, concurrently with the country’s political unification. As historian Denis Bocquet (2007) argues, the identity of Italian engineers is grounded in the modernisation of professional conditions that emerged in the pre-unification states and evolved concomitantly with the particular nation-building process that Italy underwent. In the 18<sup>th</sup> century, the Italian peninsula was still fragmented into various regional states. To the north was the Savoy-led Kingdom of Sardinia (comprising the present-day region of Piedmont and the homonymous island off the eastern coast), with Lombardy and Venice under Austria’s occupation; the central region included Tuscany, the Papal States, and several local duchies; while the south and Sicily were part of the Kingdom of Two Sicilies, under the control of a cadet branch of the Spanish House of Bourbons. The engineering profession in most of these regional states shared ties with the Ancien Régime, during which engineers’ responsibilities were legally

defined, and professional training and practice was based on a structured apprenticeship system established by the guilds – associations of artisans and merchants that regulated trade in Medieval and Early Modern Europe, granting their members the exclusive right to sell goods or practice their skills within the city. Under this system, the term ‘engineer’ was primarily associated with military engineers, while ‘architect’ commonly encompassed both architects and civil engineers. However, in the period preceding the unification of Italy, several regional states underwent significant changes in the engineering profession towards greater specialisation, formal education and state regulation, often resulting in the integration of engineers into each state’s technical administration. The Napoleonic period in the early 19th century was a turning point in this process. Throughout the 18th century, France served as a significant reference point for modernising the technical sectors of state administrations across different Italian regional states. However, reforms were implemented during the French occupation of Italy, reshaping states’ administrative structures and the engineers’ relationship with them. The reforms included restructuring government ministries and establishing engineering schools modelled after the French system. This facilitated a move away from the traditional apprenticeship system of the Guilds and the institution of a formalised approach to engineering grounded on theoretical knowledge and professional specialisation (Minesso 1995). Engineers shifted from being affiliates of a collective local association (i.e., the guild) to being private professionals who collaborated with and were gradually integrated into state administration. In parallel, various professional organisations emerged in different regions of Italy, facilitating the standardisation of engineering education and training that consolidated in the post-unification period and the national integration of the *Genio Civile* – the regional state authorities tasked with overseeing, monitoring, and supervising public infrastructure projects. At a historical moment that underscored the assertion of state authority over local municipal powers, not least by means of major infrastructural projects and supported by the deployment of the national corps of the *Genio Civile*, engineers emerged as the emblem of a grand national modernisation project.

The emergence of the modern engineer in Italy was thus driven by a redefined relationship with the state and a revamped educational system that consolidated a national professional culture. Central to the process were the School of Applied Engineering in Turin and the Polytechnic in Milan, whose curricula focused on basic training and theoretical knowledge in physics, mathematics and chemistry, designed to prepare the specialised workforce needed by emerging industries. These two institutes were the birthplace of mechanical engineering courses organised around subspecialties, including manufacturing and electrical technologies (Guagnini 1993). Nowadays, the Milan Polytechnic (It. *Politecnico di Milano*) is the largest technical university in Italy and is recognised as a global leader in various engineering fields. The institute is also home to the Master's RIDEF – an acronym for Renewables, Decentralisation, Efficiency, and Strong Sustainability (It. *Rinnovabili, Decentramento, Efficienza e Sostenibilità Forte*) – that some *ènostra* workers, including Giacomo and Piergiorgio, pursued. The Master's programme targets students and professionals with a background in technical-scientific or economic-legal disciplines, aiming at providing professional training “for those who wish to embark on the path towards ecological and social transition” (Politecnico di Milano 2023: n.p.). As stated on the Master's website, the programme is centred on fostering “scientific knowledge about climate change, [...] renewable energy generation and intelligent network management, reducing energy demand in the building sector, managing urban centres, and promoting sustainable mobility.” It also “incorporates tools for the sustainable management of public utility services and sustainability analysis of processes and products,” along with “tools for energy managers and experts in energy management within the industrial sector” (ibid). Analysing how the Master's curriculum shapes students' perceptions of themselves as agents of ecological and social change requires a deep ethnographic exploration of their engagement with and reflections on the learning environment, which was beyond the scope of my research. However, the website description of the Master's programme highlights an applied approach to the ecological and social transition grounded on technical knowledge and management

skills. This approach reflects the influence of management engineering (It. *ingegneria gestionale*), a sub-discipline that can be described as “an interdisciplinary field that combines approaches from applied economics, behavioural economics, and management/organization studies” and which is “particular to the historical emergence and institutionalization of engineering in Italy” (Hesselbein 2024: 13). Emerged in a pivotal moment of technological and political reorganisation, modern Italian engineering combined technical expertise with managerial and organisational competencies necessary for the direction and coordination of rapidly evolving industrial landscape and an expanding workforce. With the development of information and communication automation machinery in the 19<sup>th</sup> century, a genuine “science of management” (Millán Gasca 2006: 187) emerged based on logical-systemic approaches and mathematical methods for practical problem-solving to achieve performance optimisation and efficiency. These advancements paved the way for the gradual introduction of management engineering classes into industrial engineering curricula at various higher education institutions in Italy, eventually leading to the establishment of Management Engineering as a standalone degree programme.<sup>4</sup>

Aligned with a disciplinary tradition that centres on mathematical thinking, Italian engineering – and, chiefly, management engineering – perpetuates dominant technoscientific narratives of social progress and promotes technocratic solutions to social issues. Recently, initiatives have emerged to complement this approach by reintroducing social and ethical considerations into engineers’ work and study environments and practices. In 2016, a study unit named ‘META – Social Sciences and Humanities for Science and Technology’ was introduced at the Milan Polytechnic (Hesselbein 2024). META comprises an interdisciplinary network of tenured and non-tenured professors, postdoctoral researchers and PhD students from the social

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<sup>4</sup> It was once again the Milan Polytechnic that, in 1990, instituted the first Management Engineering degree programme, which replaced the *Ingegneria delle tecnologie industriali ad indirizzo economico-organizzativo* (lit. ‘Industrial Technologies Engineering with a focus on Economic and Organisational Studies’) degree programme established eight years earlier (Millán Gasca 2006: IV).



sciences, focusing on the epistemological, ethical, and social implications of scientific and technological research and development. This scholarly network provides courses for Master's students across the university, focusing on topics such as the ethics of technology, philosophy of science, sociology of technology and innovation, and critical thinking related to science and technology. Drawing on his experience as a lecturer in two of these courses, Chris Hesselbein (2024) reflects on the challenges of unsettling the frequently assumed connection between scientific advancement, technological solutionism, and social progress. The scholar points out that although students recognise the political power relations that underpin such conceptions, some continue to view this critical approach as antagonistic to innovation, posing questions such as “[i]sn’t it undeniable that technoscientific developments have raised the level of material wealth and comfort?” (Hasselbein 2024: 16). This tension between technoscientific progress and social responsibility resonates with the concerns raised by engineers in organisations like *ènostra*, who grapple with aligning their engineering practices and technical solutionism with the activist ethos that underpins cooperatives.

In exploring the intersection of engineering and activism, a growing body of literature on engineers focuses on how engineers reconcile their roles within corporations with their personal social and ethical commitments. As I discussed in Chapter 3, Jessica Smith’s (2021) work provides a compelling analysis of how engineers navigate competing accountabilities within the corporate context of mining and oil and gas industries. Smith explores how engineers who prioritise social responsibility are pushed to reconcile their roles within corporate structures with the various ethical domains they inhabit, including professional ethics, regulatory compliance, public expectations, and personal values. Smith’s work highlights engineers who identify as environmental activists, shedding light on how these individuals advocate for environmental priorities within industries often criticised for their ecological impacts. This exploration of engineers’ dual roles within the industry resonates with the historical insights offered by Matthew Wisnioski (2012) in his work on 1960s U.S.

engineering. Wisnioski examines a pivotal era in engineering history when U.S. professionals grappled with a fundamental redefinition of their identity. Against the backdrop of the civil rights movement, environmental activism, and anti-war protests, engineers began to challenge the prevailing technocratic ideal that cast their work as strictly apolitical and detached from broader societal concerns. Instead, many sought to harness their technical expertise as a force for social and political reform, positioning themselves not merely as enablers of industrial efficiency but as architects of meaningful societal change. Wisnioski's analysis reveals how this shift transformed engineers into vital actors within broader movements for justice and progress, illuminating the profession's capacity to bridge technological innovation and the pursuit of collective ideals.

Wisnioski's historical analysis of 1960s engineers redefining their roles amid social upheavals and Smith's contemporary study of engineers navigating corporate accountability underscore the evolving interplay between professional responsibilities and activism. Building on these foundational works, Bouzin (2023) extends the discussion to contemporary French environmentalist engineers and their strategies for negotiating the boundary between their technical work and activist commitments. Bouzin identifies three negotiation modes: conforming to, shifting, or overstepping the conceptual boundary separating engineering from activism. These processes are influenced by factors such as the framing of environmental causes, the development of professional reflexivity, and the adoption of political interpretations of their roles. Moreover, Bouzin highlights how the responses of hierarchical superiors and organizational cultures significantly shape the precarious balance these engineers strike. While the engineers examined by these works primarily operate within or challenge corporate structures, engineers in cooperative organisations like *ènostra* present distinct features. Unlike environmentally and socially conscious engineers working in (or abandoning) corporate structures, cooperative engineers often engage with an organisational model that seeks to reshape conventional corporate ethics. As discussed in Chapter 3, the *ènostra* workforce—including its engineers—shapes and is

shaped by the complex interplay of their roles within the cooperative and the ethical dispositions they develop as part of their 'cooperative selves.' These selves, where the lines between employment and activism are often blurred, foster an ethos that integrates social responsibility with engineering practice. However, engineering ethics in this context is caught between the cooperative framework, which emphasises mutualism and solidarity, and the techno-economic paradigm that continues to shape the profession. This tension highlights the challenge of reconciling activist commitments with the pragmatic, often market-driven imperatives that govern engineering practice.

#### From calculations to community: Engineering ethics in RECs

During fieldwork, Christian, the engineer from Calabria introduced in Chapter 3, was the sole engineer in the *ènostra* REC team. In an online meeting, Christian presented the REC design model, which he and the team had developed. As previously mentioned, *ènostra* typically received project requests from clients, whether public (e.g., Town Councils) or private (e.g., local businesses, cooperatives, or other organisations). Upon receiving a project, the team would engage with the project's objectives and commence an assessment of it, marking the beginning of 'phase 1.' Christian's work was pivotal for the team as it determined the feasibility of a project. Having dedicated much of his career to the Italian photovoltaics golden age, marked by a surge in residential and business solar installations driven by the *Conto Energia* feed-in tariff scheme (see Chapter 2), Christian possessed a robust knowledge of this technology. As the sole professional in the team capable of conducting the feasibility studies at the core of project design, he was often referred to as 'the expert.' When I inquired whether he considered himself a REC expert, Christian modestly responded that he simply did his best to comprehend the various facets of REC design, clarifying that he sought legal and economic guidance from *ènostra*'s consultants. In his own words, "I am an engineer, and an engineer has to find the solution," unconsciously affirming STS scholar Langdon Winner's (1990) description of the engineering vocation

as one that seeks to solve problems, striving to achieve specific outcomes within physical and economic constraints, and ultimately, to get things done.

Feasibility studies encompassed techno-economic assessments aimed at estimating the productivity of solar panels and aligning them with appropriate end-user profiles. Typically, they resulted in comprehensive 20-page reports, which included a project's technical, legal, and financial evaluations, along with a concise socio-geographical overview of the designated local municipality. The technical assessment provided detailed information, identifying the most suitable surfaces for installing solar panels and estimating the economic return based on the projected production of the plant. The selection of appropriate production sites was based on a combination of two criteria: the plant's high producibility and the low consumption rates of the end-users attached to it.<sup>5</sup> In practice, the technical, economic, and juridical analyses dominated most of the document, with the socio-geographical outline taking up only a tiny portion. During a meeting, Christian acknowledged the need for a "more humanistic" perspective in the reports, suggesting the potential for my contribution in that regard. When I started collaborating with the REC team at *ènostra*, Sara seemed persuaded that my involvement could help the team refine their approach to the social aspects of REC projects. At that time, Chiara was the team staff deputed to social assessments, consisting of desk-based research on the social and demographic characteristics of the municipalities. Upon completing a degree in Political Science, Chiara initially worked for *ènostra* in communication and activities related to engagement with the cooperative's members (see Chapter 3) but soon transitioned into REC's community engagement. Like everyone else on the team, Chiara had to "invent her job" since there was no blueprint for REC development. She shared during an interview that "Nobody had done this before so that no one could train me."

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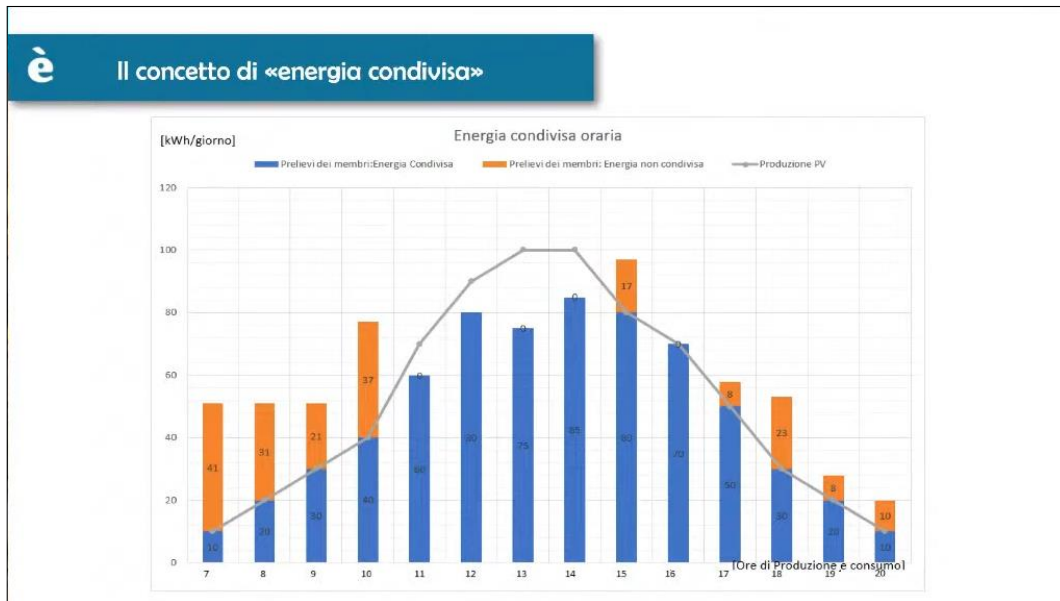
<sup>5</sup> The producibility of solar panels usually hinges on factors as varied as the site of installation, solar modules' exposition to the sun, potential shadowing or fouling of the PV generator, characteristics of the solar panels, etc.

In November 2021, Chiara and I arranged an online meeting to review the *ènostra*'s REC application forms and explore potential improvements. During our discussion, I asked Chiara to clarify the purpose of the application forms. She explained that *ènostra* distributed these documents during presentation events (such as the event in Biccari mentioned earlier) and subsequent information desks when the *ènostra* REC team interacted with the town's residents to provide information about the project. At these events, local individuals could express their interest and complete the form, providing essential data such as personal details and information about their energy usage. While the form included general questions about motivations for joining a project, Chiara acknowledged that they never probed into the social aspects of a project. She expressed uncertainty, saying, "I wonder if we should ask what the *territorio*'s needs are. I don't know; maybe this is far-fetched?" Surprised by her hesitation, I pointed out that participatory design, involving the community in the project's development, might be the solution, and I inquired if they had considered such an approach.<sup>6</sup> In response to my note, Chiara openly stated that *ènostra* would leave any decision on project participants to the Town Council. She further explained that the decision to prioritise the feasibility study before community engagement was intentional, emphasising that "we didn't want to deceive residents by saying that something could be done while we didn't know yet." She then justified her statement by emphasising that feasibility studies did not always yield positive outcomes. What I initially perceived as a lack of attention to community engagement from a participatory design perspective suddenly revealed itself as a form of engineering ethics ingrained in a techno-economic perspective, as I will illustrate further in the next paragraph.

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<sup>6</sup> Having noticed her interest, I recommended that Chiara enrol in a series of community engagement and participatory planning workshops available at the Italian Society for Applied Anthropology's (SIAA) national conference. In December 2021, Chiara and I participated in these workshops together.

For *ènostra*, what ultimately determined a project's feasibility was its potential to generate significant income within the incentive scheme introduced by the REC policy. In contrast to traditional private solar installations connected to a single household's connection point, a REC's energy facility was accessible to multiple end-users. As mandated by the regulatory scheme, the power plant's energy should be collectively consumed by REC members simultaneously with its production according to the *energia condivisa* ('energy sharing') principle. To optimise 'energy sharing,' members should draw energy during the power plant's peak production hours, typically the morning and afternoon hours in the case of solar energy. In other words, REC members should deploy the good energy conduct described in the previous section to maximise economic benefits. The market rationality at the core of bureaucrats' concept of good energy conduct was also infused into *ènostra's* project design. During a team meeting, Christian elaborated, "If within a given neighbourhood, we can have consumption profiles that increment the consumption index, we can work and estimate if an energy community holds up." Put simply, besides the appropriate plant capacity, the success of a given REC project relied on what *ènostra* termed as *comportamento virtuoso* ('virtuous behaviour') of the single end-users that composed the REC. As Chiara further simplified to an applicant in Biccari, REC members had to *comportarsi bene* ('behave well') to maximise the economic benefits from the feed-in tariffs, specifying that "by behave well, I mean changing your energy consumption habits." Ultimately, by changing consumption habits, Chiara meant that REC members should ensure alignment between consumption and production based on the principle of 'energy sharing' (Figure 33).



**Figure 33.** Visual representation of the energy-sharing principle. Online, January 2022.<sup>7</sup>

*Credit:* Christian Bartolomeo.

The ènostra REC team’s approach reflected a ‘culture of optimisation’ that underpins electrical engineers’ historical pursuit of efficiency in matching supply and demand (Özden-Schilling 2015; 2021). The objective to ‘balance the grid’ has been a crucial issue in the planning and development of modern electricity systems, but in the smart grid era, it has become imperative. Concerned with the question of how supply and demand can be best matched, avoiding as much waste and inefficiency as possible, the work ethos of smart grid engineers values optimisation above everything else (Özden-Schilling 2021). Upon completing a feasibility assessment, ènostra would submit it to the client. In cases where the report yielded negative results, the REC team would recommend that the client refrain from collective consumption and explore a traditional net-metering solar plant instead. Conversely, if the report conveyed positive outcomes and the client opted to proceed, the project would advance to

<sup>7</sup> The Gaussian curve depicted in the graph illustrates the daytime production pattern of the solar plant, while the histograms portray estimated hourly collective consumption figures for a simulated REC. To optimise feed-in tariffs, it is crucial that consumption figures not only fall below the Gaussian curve (as indicated by the blue histograms) but also align closely with it.

‘phase 2,’ which involved the community engagement phase outlined earlier.<sup>8</sup> “We make an effort to communicate to residents what a REC is and the potential benefits it holds, utilising the data from the report,” Christian said during a team meeting. In the meeting, the REC team expressed reservations about a project they had overseen. Situated in a valley in northern Italy, with a low latitude and close to a mountain, the project's feasibility assessment revealed relatively modest figures. Christian believed those figures might not be economically enticing enough for residents to participate. The client, a local cooperative, had engaged with potential members before reviewing the report, defying *ènostra*'s advice. “They filled the residents’ heads with numbers and whatnot without our feedback,” Christian emphasised, noting that *ènostra* had not yet distributed the feasibility report. “That's not transparent!” Christian rebuked the local cooperative for sharing potential economic benefit figures before these could be verified through his evaluation. He criticised it as a hasty approach, pointing out that *ènostra* would not make a favourable impression if the actual figures turned out to be lower. As previously outlined, a project could only advance to ‘phase 2’ once the feasibility report was delivered to the client. While in ‘phase 1’ the design of the REC was based on cross-checked solar panels’ production figures and end-user consumption figures, it was only in ‘phase 2’ that actual consumption data was collected.

If you estimate €50 for an average residential user, you might have to deal with someone worth €50, but you might as well have to deal with someone worth €10. Then this fellow might contest, “But you told me that!” So we

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<sup>8</sup> The subsequent stage (‘phase 3’) entailed the planning and installation of the PV plant. As mentioned earlier, while *ènostra* had the option to be involved in this phase, they deliberately chose to step aside from this ‘executive’ stage, providing an opportunity for local professionals and businesses to take charge. The concluding part (‘phase 4’) involved the activation of the REC: connecting the PV plant to the grid, and the community applying for incentives from the GSE. In the words of Sara, “What *ènostra* will do is launch training courses so that the community can be independent and self-managed. *Ènostra* will continue to support the community, but the idea is to create many communities that can walk with their own legs.”



must be careful when meeting people and saying that we are dealing with high figures.

Engineers are often heavily concerned with numbers and calculations. These concerns typically pertain to the epistemological domain of mathematics, which is fundamental to the application and progress of engineering. As an object of anthropological interest, numbers have been considered a frontier in social, cultural, political and moral life (Guyer et al. 2010). The types gathered, the individuals collecting them, and the intended purposes vary across contexts and are all significant factors influencing the roles and functions assigned to numbers (Verran 2010). In *ènostra's* REC design, numbers were an essential part of their ethical disposition towards the client. In one of our first exchanges, Sara anticipated that Christian dedicated much of his work to “teasing out the numbers.” This emphasis on numerical precision became evident during our visit to Biccari. In the lead-up to the presentation event, Sara and Christian were deeply engrossed in discussions with the local Councillor, focused on confirming mutual agreement on the numerical details displayed on the engineer’s MacBook screen. When I inquired about Christian’s particular concern with numbers during a conversation we had later, he responded,

If we say, “Look, you will get €100/MWh,” while everyone else is throwing 300- 400 figures, it makes it look like we are constantly under them. I have a prudent approach — if you can earn €100 with a plant, my projections are 80-85 — because there might be unforeseen issues. I don’t want to deceive anyone.

He considered delivering conservative estimates a matter of honesty and fairness. According to Christian, politicians and other players in the REC sector often presented approximate, sometimes exaggerated, estimates to motivate the public to embrace a project. Considering this practice unfair, he humorously remarked one day that he might as well adopt a similar approach, “Tomorrow, I’ll go there and tell everyone they’ll get a €1,000 benefit. That’s it!” When I later inquired about his understanding of honesty and fairness, he stated that the essence was not to deceive. In contrast to what

he referred to as an *approccio commerciale* (lit. 'commercial approach'), emphasising an approach focused on marketing, he called his own approach *tecnico* ('technical'). "I don't need to sell. I need to be honest. I need to be fair," he asserted before sharing the following anecdote:

In the past, I happened to work for a local client who wanted to install a 100KWp PV plant on his farm. At first, I said, "Let's do it!" A few days before signing the paperwork, however, I found out that the regional government was about to issue a non-refundable grant scheme for PV on farms, meaning he would have saved about 50% on the investment. So, when the client came forward and asked, "Shall we make the PV?" - I responded, "No, don't do it now. Wait a few months so you can get a 50% discount." It'd have been ridiculous and unfair to say yes, even though I'd have the money. It turned out that this guy hired someone else instead and didn't get the grant.

For Christian, a technical approach meant basing a project's assessments on calculations and candidly delivering the numbers to the client. In analysing this zeal for quantification as an ethical disposition, I propose to understand it within the broader contexts of neoliberal views on society and the economy. Neoliberalism's trust in numbers stems from a perception of most domains of human life as fundamentally knowable and measurable. This view is rooted in the belief that humans' calculative capacities and their efforts to enhance them would create the circumstances for individuals to be proficient participants in the market (Callon 2007). Christian's concern with calculations manifested a specific feature of engineering ethics. Engineers primarily utilise their expertise to address technical challenges, subsequently refining those solutions within the parameters and limitations dictated by material, technological, economic, legal, environmental, and human-related factors (Franssen 2021: 97). In essence, engineering design can be viewed as a quest for optimality (Franssen 2021). Engineers dedicate themselves to delivering the most

favourable outcome possible, considering the objectives and constraints within the context in which they operate.

In ènostra's REC design, delivering the best possible outcomes was intimately linked to the techno-economic principle of energy sharing discussed in the previous section. During the presentation event in Sardinia cited at the beginning of the chapter, Christian showed a simulation of the REC project to residents who turned up for the event. He emphasised that

to establish the *comunità energetica* ['energy community'], our hypothesis is to construct the plant in this central location. We aim to gather approximately twenty households and additional end-users, such as a bar or pizzeria — any entity consuming slightly more than a household. I will bring them together to constitute my energy community. What lies at the core of the energy community's functionality? The fundamental concept is that, to qualify for incentives by producing 1,000KWh, the 20 households must not only produce this energy but also consume it from their meters.

To streamline the process of generating economic revenue through the *energia condivisa* principle, the engineer explained that non-household end-users such as businesses, institutional buildings, and offices would be incorporated into the REC. This inclusion was based on the expectation that non-household end-users ensure higher consumption rates during the peak production hours of the plant. Moreover, Christian emphasised that end-users should adhere to a “virtuous energy consumption behaviour.”

What does this mean? [It means] that if I have low consumption rates during daily hours, I could change my lifestyle and shift night hours consumption to daylight, virtuously moving to daylight consumption so that I can maximise economic income. Let me say this once again. Being part of an energy community is a virtuous pathway that makes us a

community because we all row in the same direction. And, in so doing, [we can get] an economic benefit.

Christian's technical approach was infused with the techno-economic rationality of energy sharing, focused on conveying a culture of optimisation and providing precise calculations. According to Canay Özden-Schilling (2021: 97), "[o]ptimizing engineers are techno-economic practitioners who, in electricity and elsewhere, create market-like lived realities here and now, without waiting for legal change and without necessarily a base in personal ideological conviction; they do so as a function of the optimization toolkit and its attending conjectures about the world." In adhering to an engineering ethos concerned with optimisation, Christian saw conveying 'energy sharing' as his sole moral obligation, thereby deploying a vision of energy subjects as rational market subjects responsible for the outcomes of the projects.

## Conclusion

The EU directives and the resulting national regulations emerge as a space where diverse visions of the role of RECs are explored. As STS scholars Fredrik Envall and Harald Rohrer (2023) point out, EU directives provide only a general legal framework that has to be transposed into national law, allowing for various interpretations of the roles of RECs in future energy systems. Envall and Rohrer warn that the visions of authoritative actors, such as policymakers and regulators, over what RECs should become in future energy systems might prevail. In the context of Italy, the sociotechnical imaginary I described in relation to the vision of bureaucrats suggests that RECs are primarily seen as offering flexibility to a centralised grid. At the same time, visionaries like Sara and the Mayors see RECs as catalysers of social solidarity. In this chapter, I have shown how these visions are not necessarily in opposition and elicited different ethical engagements with energy futures and the role of collectives in them. In *ènostra*, these different ethical commitments coexisted within the domain of REC project design, underpinned by two concurrent interpretations of sharing: one cultivated by imaginaries and values of community and

solidarity and the other adhering to an engineering ethos that mirrored the techno-economic nature of the policy. How did the two work together?

In her work, Smith (2021) defines engineers' efforts to harmonise accountabilities to the public with accountabilities to the company they work for as engineering pragmatism. In the endeavour to make themselves more accountable to multiple publics, engineers strive to find solutions that they consider mutually beneficial, "address[ing] residents' concern while still generating financial benefits for the companies and the communities" (Smith 2021: 187). In *ènostra*, a form of engineering pragmatism played out which harmonised an ethics of 'sharing' as social solidarity and an ethics of 'energy sharing' as techno-economics. The REC team genuinely believed in the potential of energy collectives to empower local communities and took on REC design as a way of promoting *ènostra*'s vision of an energy transition that will foster social change. From their perspective, RECs were seen as a way to uplift marginal regions economically. At the same time, *ènostra* envisioned this transformation unfolding within the techno-economic framework outlined by the national REC policy. Therefore, the potential for change was tied to the ability to generate economic income based on the incentive scheme introduced by the energy authorities. As such, the responsibility for driving change rested on end-users who were expected to act as economically rational subjects and cultivate a "virtuous" energy behaviour that could yield economic returns.

## Chapter 7:

# Conclusion

On a night in December 2021, I sat at my desk, reviewing the field notes I had taken during a recent trip to Apulia along with *ènostra*'s REC team. I noticed my note about the presentation of a REC project, which Sara had mentioned during the trip, that would take place that night on a webinar app. I decided to take a break from field notes and launched the webinar app to attend the presentation, which was held both in-person and online. The presentation showcased a REC project focused on a few small mountain villages, led by a local energy cooperative, and aimed to promote the initiative among residents.<sup>1</sup> Before introducing the local cooperative, a member of this organisation invited a guest speaker to give an overview of what a REC project entails. Before delving into the engineering aspects of REC development, the guest speaker, a practising architect interested in renewable energy, first discussed his interpretation of 'community.' He projected a PowerPoint presentation and directed attention to the initial slide, which displayed a Wikipedia definition of 'community.' The definition outlined 'community' as a small or large social unit that shares norms, values, religion, and identity, typically occupying the same physical location or a virtual space. Commenting on this definition, the speaker noted, "Right now, we're talking about real communities," referring to the REC project involving the mountain villages. Then, he continued, "Because when they're virtual [communities], they have other potentials — they're not negative — but they don't allow working on energy at the local scale."

Then, the architect emphasised the political significance of RECs, arguing that these projects offer a middle ground between "autarchy," which he associated with energy

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<sup>1</sup> I intentionally avoid naming the project and its geographical location to preserve anonymity.

autonomy, and “total dependence,” which he attributed to a fossil capitalist system that primarily controls energy resources. Rather pragmatically, the architect conceded that “true energy autonomy,” intended as a radical infrastructural and economic disconnection from the current energy system, would be impossible due to what he perceived as an “insurmountable reliance on technology imports.” In his view, people tend to use much more electricity than they could produce on their own, and their electricity usage would not be sufficiently aligned with the spikes and paucities in production from roof-mounted solar panels or a small wind turbine. However, he posited that people can create an alternative to total dependence if they organise locally in their “real communities.” Perhaps influenced by architectural and urban philosophies of autonomy, his view emphasised “the potential for pooling and local connection and collaboration as part of a shared political project on the part of those involved in ‘connectable places’” (Lopez 2019: 59). From this perspective, energy autonomy describes a vision of disconnection from utility networks at the scale of a household or a small community. In such a vision, disconnection is not the same as being out of reach of existing infrastructure, as it might be the case with remote places lacking access to utility networks, but proposes “a form of autonomy that [is] both desired and planned” (ivi).

This understanding of disconnection resonated with the vision held by the local cooperative promoting the REC project. In the cooperative’s view, the REC project would involve various local villages in an economic and political strategy for the region. As one of the local cooperative representatives elaborated during the event, ‘community’ was intended as an “organism” comprised of individuals interconnected by personal relationships driven not solely by financial gain but also by a collective aspiration to stimulate a conversation about regional sustainable development. The man portrayed the REC project as part of a broader plan that included promoting local entrepreneurship in conserving natural resources and implementing sustainable mobility initiatives. Centred on locality as the defining character of ‘community,’ this view was reinforced by another cooperative member who spoke next. Having lived for

several decades in a city, the local cooperative member had recently returned to his birthplace, one of the local villages where the cooperative planned the REC project. Concerned with the increasing out-migration of local inhabitants and what he perceived as encroaching consumerist trends on the locals' lifestyles, he decided to join the cooperative and promote its activities among his fellow villagers. Besides the REC project, the cooperative collaborated with local associations to establish a community park and encourage sustainable mobility initiatives, which, over time, created a dozen job opportunities for young local professionals. According to the member, such endeavours were central to his community's economic and social revitalisation.

At the end of the presentation, the speakers opened the floor to questions and comments from the audience. A young man stood up from the middle of the seating rows and wondered what alternatives people could pursue to become "energy-autonomous," as the architect would have it. "One of the most interesting considerations comes from the possibility of changing your provider, right?" the young man argued. "One always thinks there is an electricity monopoly, as it has been for many years. Now that a free energy market exists, many new players are emerging. It's not that they burst onto the scene; on the contrary, they stay quite reserved, they don't make much noise, but knowing them is important," he continued. Before returning the microphone to the presenters, the young man concluded by mentioning that he had just visited the website of a national energy cooperative, *ènostra*. He stated, "I will definitely draw on this emerging world to promote a decentralized system." The young man's comment prompted the architect's response, "Actually, from my point of view, when a cooperative [like *ènostra*] reaches five-, ten-thousand members or more, it's not a community." The architect emphasised that, in his personal view, *ènostra* represents something akin to a *società ad azionariato diffuso* (lit. 'widespread



shareholding company’).<sup>2</sup> For the architect, organisations like *ènostra* remain essential for building medium-to-large scale installations at regional and national levels, “which is always better than having large corporations do it.” However, he maintained that they could not be considered energy communities because their large scale complicates members’ participation, who may better be understood as “consumers who have signed an agreement.”

This ethnographic vignette shows how ‘community’ may carry significant ideological weight and be used to assert specific meanings, interests, and political stances. By invoking autonomy, smallness and locality, the architect drew on these qualities in his definition of ‘community.’ In contrast, he described large, nationwide organisations such as *ènostra* as ‘companies.’ The architect claimed an interpretative authority over what an energy community should and could be. This framing of ‘community’ resonated with a discourse of decentralising energy and power that most of my interlocutors at *ènostra* endorsed. However, the architect’s judgement was infused with a critique of corporate capitalism that set ‘community’ in opposition to ‘company’ (and, by extension, ‘corporation’), blurring the nuances in which community may be evoked, conceptualised and employed in the latter contexts. In this thesis, I have endeavoured to move beyond the use of ‘community’ as an “empty category of heuristic or descriptive convenience” (Creed 2006: 4). Instead, I have sought to explore the work that the concept does when deployed at the intersection of capitalism, the non-profit sector, and renewable energy. In analysing ‘community’ in *ènostra*, I have found it necessary to do so in relation to ethics and the economy. I treated these not

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<sup>2</sup> A *società ad azionariato diffuso* (often referred to in English as ‘public company’) has its capital distributed among numerous shareholders, none of whom owns an absolute or relative majority in the shareholding. In principle, such companies should have no dominant shareholder who can influence managerial decisions, allowing the top management of the public company to freely decide and plan development strategies without any external influence. *Azionariato diffuso* was one of the means that Italy (as many European countries) resorted to in the 1990s to carry out privatisations of previously state-owned companies such as Enel.

as separate domains of human activity but sought to grasp how ethics is mobilised within multiple spheres of economic life. In doing so, I have delved into terrains as diverse as entrepreneurship, responsibility (individual, collective and 'corporate'), solidarity, morality, and technology to analyse the articulations of community with the electricity economy. My ethnography has revealed that, rather than as simply a form of social organisation, 'community' should be understood as an aspiration. In particular, the aspiration to do good that my interlocutors variously pursued, as I have discussed throughout the chapters. In the next section, I will summarise the main points made in the thesis, highlighting its key contributions. Then, I will explore the possible areas my thesis opens up for further investigation.

## Thesis' summary and key contributions

I started by examining the aspiration to establish a community enterprise capable of navigating a predominantly capitalist economy, such as the electricity market, while remaining grounded on the social and solidarity economy movements and initiatives in which my interlocutors were actively involved. As they ventured into the electricity market while upholding mutualistic, societal, and environmental goals, they grappled with managing the cooperative's economic and membership expansion. This involved cultivating and embracing an entrepreneurial mindset that balanced benefiting the cooperative's members, society, and environment, ensuring the organisation's financial stability. I illustrated how conflicting views on managing the financial resources of *ènostra's* members emerged during the transition from a small association to a large cooperative. My analysis demonstrated how a moral ambition for establishing a community enterprise to challenge the dominance of capitalist forces, mainly represented by large energy corporations, co-existed with the recognition that a complete overhaul of capitalism may not be feasible or desirable.

Consequently, I focused on the segment of *ènostra* I call a 'community of practice.' I used 'community of practice' descriptively rather than analytically, reflecting how my

interlocutors employed the term to describe forms of engagement that extend beyond formal roles within the cooperative. I showed how, in *ènostra*, practices that exceed conventional distinctions between paid and unpaid labour shaped a particular organisational subjectivity that I call ‘cooperative self.’ These cooperative selves were enmeshed in multiple responsibilities: towards society and the environment, the cooperative’s fellow members, and themselves. Each of the cooperative selves I presented uniquely experienced such responsibilities, although not all of these responsibilities simultaneously. I argued that voluntarism, as a defining ethos of today’s non-profit sector, was the shared practice with which my interlocutors attended to their sense of responsibility for societal and environmental issues, mutualism, and self-care.

Having delineated the relations of responsibility that sustained *ènostra*’s community of practice, I moved on to explore a different articulation of the ‘self,’ centred on the aspiration of a community economy aimed at disentangling *ènostra* members from the dynamics of the market. I explored how *ènostra*’s aspiration to “break free” from the fossil economy of the national electricity market was negotiated through a set of economic arrangements which gave shape to emic categories of ethical consumers and ‘prosumers.’ The aspiration of a rupture with the market was tightly linked to *ènostra*’s ambition to expand their renewable energy facilities to have sufficient electrical power to supply to members at a fair price, which was ideally not influenced by the price fluctuations determined by the national electricity market. My interlocutors idiomatically referred to this ambition as “closing the loop between production and consumption,” an expression that evoked the idea of a community of economic actors shielded from the market. I illustrated how the cooperative’s member-users saw their economic participation in *ènostra* as a way to achieve “freedom” from the dominant electricity economy and its fossil fuel-dependent corporations, whose profit-driven motives they opposed. For the members I called ‘ethical consumers,’ this autonomy was achieved figuratively through metaphorical and symbolic associations drawn from alternative economic practices in the food

supply chain. In contrast, prosumers benefitted from discounted electricity tariffs, decoupled from wholesale market price fluctuations, as a reward for their financial investments in *ènostra's* production funds. My anthropological analysis provided insights on how, even when framed as a “closed loop,” as a closed economy, alternative economies such as cooperatives present some level of market integration that determines whether members can effectively become independent from the market.

Consequently, I explored the connection with the market economy by examining the coming into being of a framework of ‘corporate’ responsibility for developing *ènostra's* renewable energy facilities. Here, the concern with ‘community’ emerged in connection with the meanings associated with ‘renewable,’ ‘ethical,’ and ‘sustainable,’ three attributes that *ènostra* directors and workers used to qualify the electricity sold to the cooperative’s member-users. ‘Community,’ in this case, was evoked to endorse *ènostra's* support to individuals, committees, and towns opposing large-scale, ‘extractive’ projects. By claiming that “renewable energy is not always good” and critiquing the large-scale development model of energy companies and utilities (especially in Southern Italy), *ènostra* weighed an ‘ethical’ and ‘sustainable’ approach that was attentive to local people’s needs and concerns. I showed that such an ‘ethical’ and ‘sustainable’ approach to renewable energy development was a longstanding question dating back to the cooperative’s inception and initial concern with ‘land consumption,’ which led the founders to prioritise rooftop photovoltaics over other technologies. More than a normative principle to guide the selection of technologies, I argued that such a conception of ethics and sustainability had to do with a deep-seated belief in solar energy’s socially and culturally transformative potential. I demonstrated that considerations of what is ‘ethical’ and ‘sustainable’ are far from static but constantly shaped by shifting concerns about the urgency of the transition.

‘Community’ prominently came to the fore in envisioning a future energy system centred on renewable energy collectives. While *ènostra*, local administrators, and

policymakers appeared to unanimously invoke ‘community’ as the desirable scale at which they should imagine a decarbonised and decentralised energy system, the values they associated with ‘community’ varied. On the one hand, *ènostra* and the local administrators who hired the cooperative to develop renewable energy collectives, which I called ‘visionaries,’ appealed to ‘sharing’ as a form of solidarity to propel the economic recovery of marginalised areas. On the other hand, the notion of ‘sharing’ pursued by policymakers was informed by a neoliberal view of energy communities as economically rational actors. I illustrated how an idealistic and pragmatic view coexists in engineering ethics, informed by a culture of optimisation, which assigns the responsibility for generating economic benefits for the community to the capacity of end-users to develop “virtuous” energy behaviour.

Throughout the thesis, I have examined how my interlocutors’ quest for the ‘good’ involved constantly balancing their ethical stances with the market forces they sought to navigate. As such, my interlocutors’ aspirations rested on the “knowable ground” (Cross 2019: 47) constituted by capitalist economic relations and dynamics of market exchange. For *ènostra* directors, workers and members, the aspiration to ‘do good’ hinges on the tangible realm of the electricity infrastructure and its market economy. As my interlocutors embarked on a collective pursuit of an ethical alternative to the dominant electricity production and supply system through what they called a “community enterprise,” my thesis revealed that this pursuit often manifested at the individual level. As shown throughout the chapters, the ethical perspectives that informed my interlocutors’ perceptions of entrepreneurship, responsibility, consumerism, sustainability, and energy futures were often personal. By exploring how individuals engaged with *ènostra* and how these interactions inspired various interpretations of ‘doing good,’ my work opened a window onto the intricate relationship between ethics, energy and community in contemporary neoliberal societies. In emphasising individuality, I do not mean to downplay the drive for collective action that motivated most of the individuals I encountered in *ènostra*. Instead, mine is an invite to read collective action into the context of neoliberalism and

its emphasis on individuals and markets. As neoliberal governance increasingly shifts responsibility to individuals and the market (Eadson 2016), communities serve as arenas where isolated individuals can fulfil these responsibilities.

In Italy, the liberalisation of the electricity market in the 1990s opened up the energy system to new actors beyond the traditional utility companies. The process of liberalisation, furthered by the recent transposition of European Directives on RECs, goes hand in hand with the Italian energy authorities' goal to accelerate the transition to low-carbon energy and restructure the scale of energy production and distribution. In this context, communities, whether as cooperatives or RECs, provide a space where neoliberal subjects can act individually on their concerns for energy, economic, societal and personal change. These neoliberal subjects come to care about the environment and societal and economic issues in ways complementary to state and corporate interests. In the thesis, I have demonstrated the diverse ways in which the formation of neoliberal subjects occurs. The prosumers, the cooperative selves, and the "aware consumers" of the future energy system provide examples of how individuals navigate neoliberal subjectification.

With increasing calls for involving the public in renewable energy generation, distribution, and management, anthropology is well-positioned to critically examine the power dynamics, social ramifications, and ethical dimensions of grassroots energy transitions. At the same time, anthropology's contribution becomes vital to reinvigorating concepts and ideas to think critically about civil society's involvement in technological and economic processes. Having discussed my thesis' contribution, I explore my work's broader implications for future research on grassroots energy transitions and outline three interwoven themes conducive to further anthropological investigation: the commons, democracy, and citizenship.

## Energy beyond community

### Energy and Commons

2009 Nobel Memorial Prize in Economic Sciences Elinor Ostrom's work brought the question of the commons into the spotlight in political economy. Ostrom (2015) critiqued ecologist Garrett Hardin's (1968) thesis that, given a fixed shared pool of resources, such as a grazing area, the increasing competition among farmers for pasture will inevitably bring about its depletion. Hardin's thesis, known as 'The Tragedy of the Commons,' was inspired by a methodological individualism that assumed that farmers only aimed at maximising their utility. Ostrom contested that Hardin was not discussing a tragedy of the commons but rather a tragedy of free access. For Ostrom, Hardin overlooked that commons are managed collectively by the commoners, who determine and continuously oversee access rules. Based on case studies involving communal tenure in meadows and forests, irrigation communities and fisheries worldwide, Ostrom demonstrated that commoners safeguard individual interests while ensuring continued use and avoiding loss for all involved. The novelty of Ostrom's work, which has inspired radical political thinking around alternatives to oligarchic control over natural resources, is that it established a direct correlation between the resources held in common, a community of commoners, and their system of governance. Some scholars, however, have pointed out that Ostrom's original reflection on the commons suffers from a significant limitation (De Angelis 2019). In her definition of the commons, the Nobel Prize economist included common pool resource systems (e.g., a grazing area) but excluded the units of resources derived from such systems (e.g., the amount of forage consumed by animals in grazing areas). Economist Massimo De Angelis (2019) contends that this distinction contradicts both historical experiences of the commons and the complex nature of contemporary commons. Firstly, he argues that throughout history and currently, there are numerous examples (ranging from toy libraries to communal kitchens) where people put excludable resource units into a shared pool and then established regulations for their usage by individuals. In this case, the single resource units are 'commoned' rather

than the whole resource system. Secondly, the scholar posits that, in recent decades, there has been a growing interest in non-competitive common goods such as knowledge, music, or software code commons that multiple individuals can access and use without diminishing their availability to others. De Angelis (2017) proposes a notion of the commons that shifts the focus from resource systems to social systems. By social systems, the scholar means a group of people who come together for a certain amount of time or a particular purpose, including not just families, friends, political associations, and so on, but also, for example, a play card tournament at a local bar. For a social system to become a ‘common,’ though, De Angelis argues, it should feature at least three elements: shared resources, a community of commoners, and the praxis of commoning, that is, the act of doing in common to reproduce such a social system. The discussion about the commons in the energy field has tended to (indirectly) address the first two aspects of the definition above. Some scholars describe grassroots energy initiatives, such as renewable energy collectives (Bernardi & Tricarico 2021) and remunicipalised energy utilities (Becker et al. 2017), as examples of energy commons. They emphasise these initiatives’ ownership and governance models, pinning them contrary to corporate and state models. In doing so, the commons are locked in a political economy framework that offers prescriptive definitions of what they should be. More than the first two, I find that the third aspect of De Angelis’s definition — the focus on practices — yields more potential in innovating our thinking about the commons, in general, and the energy commons, in particular. As resources are increasingly privatised and commodified, reducing the commons to the mere status of ‘public goods’ hinders our ability to understand the commons’ centrality to contemporary and future “material struggles and imaginaries of collective well-being” (Amin & Howell 2016: 1).

While legal claims over ownership of goods and services remain vital, the fight for the commons gradually occurs on other, more abstract grounds, like feelings and imagination. Anthropology is well-equipped to investigate how people pursue the commons outside predefined legal frameworks and analyse interactions and tensions



with such frameworks. For instance, Simone Abram and Sarah Blandy's (2018) study of Heeley People's Park in Sheffield, UK, highlights a disconnect between the legal frameworks governing ownership, management, and access to parks in English property law and residents' practices and feelings of belonging to the park. Since converting unused land into a community park in the 1990s, many Heeley residents have developed a solid connection to the space, which they perceived as their 'property.' However, a trust in the form of a company limited by guarantee and a charity was the legal owner of the park. Because English property law does not recognise land ownership to more than four individuals, a corporate entity is needed to acquire the land (Abram & Blandy 2018). Focusing on Scotland, Adam Reed (2016) explores the reaction of Edinburgh's animal welfare campaigners to the Land Reform (Scotland) Act of 2003, which established legal rights for public use or access to specific types of private property in the country. This piece of legislation established a right to be on land and a right to cross land for recreational and specific other purposes. For the animal welfare campaigners, Reed tells us, the Act represented a way to enhance the protection of wild animals on enclosed land. As the campaigners emphasised, most privately owned land made accessible to the public via the Land Reform Act consisted of rural areas dedicated to sports involving the capture or killing of wildlife. Because the land was now open to walkers, birdwatchers and other 'well-intentioned' users, the animal welfare campaigners felt that their ability to oversee land management practices and observe instances of wildlife crime had increased. From their perspective, the Act introduced a common opportunity and responsibility to conduct monitoring for the benefit of wild animals. Reed understands the perceived commonality between humans and wildlife, among animal welfare campaigners themselves, and between those activists and casual walkers, as "imaginative expansions" (Reed 2016: 50). The examples of the Heeley People's Park and the Edinburgh animal welfare campaigners show how legal frameworks do not capture people's lived experiences of the commons. While Abram and Blandy show that the legal arrangements offered by English property law fall short of people's lived

experiences of belonging and ownership, Reed illustrates that people's imaginative application exceeds the possibilities of common use afforded by the Scottish Land Act.

Energy, particularly electricity, represents a dynamic field to observe how people articulate the commons. The contexts for exploring the articulations of the commons are multiple, both in regions characterised by established infrastructures and in areas where such infrastructures are absent or inconsistent. In the former case, people may have to carve out the commons from, and perhaps in tension with, old techno-economic paradigms, while in the latter, people may be able to articulate the commons anew, along with the development of novel energy infrastructure (Boekelo 2022a; 2022b). These are but a few questions that anthropology may ask: what values stand out in energy commoning? How do they build on, overlap with, or challenge existing social, economic, and cultural values? What is the role of markets in this process? This thesis provides insight into potential directions for anthropological investigations of the commons, extending beyond the immediate scope of energy anthropology and opening avenues for broader anthropological reflections. For example, the different meanings of *condivisione* ('sharing') that appeared in the context of renewable energy collective development are examples of how legal understandings may be at odds with people's imaginations of the commons. What do opposed interpretations tell us about the contested meanings of the commons? I have emphasised the role of volunteering in shaping my interlocutors' perceptions of responsibility. Can volunteerism provide a framework for reimagining the commons as a practice of shared responsibility? I have also discussed the specific features that make electricity a hard-to-grasp entity, highlighting how my interlocutors used food analogies to make sense of it. Since electricity is inseparable from the technologies and infrastructures integral to their transmission, engaging with the electricity commons requires considering how social actors make sense of resource units (i.e., electrons) in relation to such technologies and infrastructures. At the same time, energy facilities and infrastructures are not necessarily immediately visible or known

to people. What imaginative and emotional field do people mobilise to articulate their sense of ownership of electricity?

### Energy and Democracy

Democracy, perhaps more than the commons, immediately brings to the fore political questions. Political theorist Timothy Mitchell's (2009; 2011) influential work has frequently inspired anthropologists working on energy's articulation with political power. In *Carbon Democracy*, Mitchell (2011) examines the close correlation between modern politics, statecraft, and carbon-based fuels. Mitchell explains that various forms of representative central government emerged in some European countries and their settler colonies overseas, simultaneously with coal's emerging role as a primary energy source. During the 18th and 19th centuries, coal came to replace wood in domestic and industrial heating and, above all, became the propeller of the so-called Industrial Revolution. The unprecedented industrial and urban development of the time, involving steam engines, iron and steel production and, gradually, electricity generation, was significantly indebted to coal. Most of the world's industrial centres expanded close to or directly above coal reservoirs, particularly in regions such as Northern England and Southern Wales, the belt running from Northern France through Belgium to the Ruhr Valley and Upper Silesia, and in the Northern American region of Appalachia. Increasingly, people began to migrate from rural areas closer to these industrial centres, boosting the expansion of urban areas and the concentration of population in these areas. Moreover, coal spurred agrarian and colonial processes. Mass energy production necessitated access to extensive new agricultural lands to supply the food necessary for expanding cities and extracting and manufacturing industrial raw materials. By freeing up land previously designated for woodlands to provide fuel, coal played a role in this agricultural transformation. The acquisition of colonial territories was another factor that coincided with the transition to coal. Colonies in the Americas exploited land, which served to cultivate industrial crops, and the labour of enslaved people, who were forced to work on these crops.

For Mitchell (2011), these developments point to the first set of connections between carbon-based fuels and representative governments. Property owners gained increasing control over sources of revenue that were vital to central governments and, at the same time, increased their involvement in public affairs. Mitchell notes that these processes gave rise to oligarchical power rather than forms of democracy. However, while most individuals did not actively participate in public affairs, their involvement through labour unions, mass political movements, and organised political parties rose in response to the wealth disparities caused by industrialisation. Mitchell contends that coal linked to the emergence of mass democracy in a more intimate way: Coal's high carbon concentration also made its transportation via land or water routes in significantly large volumes cost-effective compared to timber or other renewable fuel sources. By the close of the 19<sup>th</sup> century, industrialised regions had established intricate networks to transport concentrated carbon reserves from underground coal deposits to the surface, then to railways, ports, cities, and manufacturing and electricity generation locations. Substantial amounts of energy were now channelled along narrow routes. As a result, significant numbers of workers had to be concentrated at pivotal junctions of these routes. Their strategic position and clustering afforded them a novel form of political influence. This influence stemmed from the organisations they established and the political coalitions they formed but, increasingly, from their ability to impede, disrupt, or halt the flow of these remarkable concentrations of carbon energy. Coal miners, for example, played a prominent role in challenging labour practices and employer authority through activism and political mobilisation from the 1880s onward. Ultimately, for Mitchell, the expansion of mass democracy that emerged between the 18th and 19th centuries depended on the materialities and infrastructures of coal.

A global change has shattered this situation since the first half of the 20th century: oil has replaced coal as the global primary energy source. The shift to oil represented a significant technological change with equally substantial political and economic

consequences. The material properties and geographical distribution of oil distinguished it from coal. As it rises to the surface propelled by subterranean pressure, either from the water beneath it or the gas above it, oil necessitates a smaller labour force than coal for the energy generated. Most workers remained above ground, under constant supervision from managers. Due to its liquid state, oil could be transported via pumping stations and pipelines instead of railways from the production site to destinations for local use or international shipment. Due to the alterations in extracting, transporting, and utilising fossil fuels, energy networks became less susceptible to the political demands of labourers responsible for their operation.

Mitchell's insights on the prominent role of fossil fuel infrastructure in enabling or disrupting democratic processes influenced anthropological analyses of the relationship between energy and power. Dominic Boyer (2014), for example, coined the term 'energopower' to describe an

alternative genealogy of modern power, as an analytic method that looks in the walls to find the wiring and ducts and insulation, that listens to the streets to hear the murmur of pipes and sewage, that regards discourse on energy security today as not simply about the management of population (e.g., "biosecurity") but also about the concern that our precious and invisible conduits of fuel and force stay brimming and humming (Boyer 2014: 325).

Boyer builds on Michel Foucault's influential concept of 'biopower' to interrogate how energy materialities and infrastructures create new forms of governmentality. As a concept concerned with articulating political control, 'energopower' lends itself to critical explorations of centralised energy infrastructures. In an ongoing study of energy development in the Isthmus of Tehuantepec in the Mexican state of Oaxaca, Boyer and Howe (2015; 2016a) focus on a "powerful but elusive new energy form" (Boyer 2014: 324): the wind. Spurred by a significant decrease in petroleum production in the last 15 years by the state-owned giant Pemex, the government of Mexico

identified wind as the source that could lead the country out of the crisis. The winds of the Isthmus of Tehuantepec were noted for their steadiness and strength, unmatched by winds in most other regions across the globe. Following various neoliberal reforms aimed at facilitating private investments in renewable energy, the Isthmus of Tehuantepec emerged as the most densely populated area for onshore wind development globally. Various federal and regional government officials asserted that wind development represented a means to propel this impoverished and predominantly indigenous region into a state of ‘modernising progress.’ However, in the initial years of substantial wind development, Boyer and Howe observed that education, healthcare, and infrastructure like factories and prisons received scant attention. Instead, the prevailing focus was on the politics of transnational investment, grid expansion, and electricity provision, steered by another state-owned entity, CFE, the electricity utility. For Boyer, the situation of the Isthmus exemplified energypower “as a genealogy of modern power that rethinks political power through the twin analytics of electricity and fuel” (Boyer 2014: 325).

Boyer himself, however, seems persuaded of the potential of renewable energy in enabling a “revolutionary infrastructure” (Boyer 2017: 184). He notes how it allows people to experiment with localised and small-scale facilities that could foster democratic processes. He recognises that fossil fuel-based grids and pipelines that arose during the early 20<sup>th</sup> century facilitated the consolidation of industrial-political state and corporate power. Echoing German politician Hermann Scheer (2004), one of the architects of Germany’s *Energiewende* (‘energy turnaround’), Boyer reckons that renewable energy can enable more efficient and short supply-chain infrastructures that are “more susceptible to democratic political control” because “shorter renewable energy supply chains will make it impossible to dominate entire economies” (Boyer 2017: 183). Scheer pointed out that four pillars sustain the fossil fuel industry: resource extraction and trading companies, power station and grid operators, investment banks, and the power plant construction industry. The German politician believed that renewable energy would progressively ‘sweep away’ the first

three pillars while it would remain exposed to concentration and monopoly in the manufacture and construction of facilities because solar cells, wind turbines, and biomass plants need a dedicated industry to develop them. Scheer considered that if renewable energy sources came to dominate the market, there would be no need to extract and trade energy because people could harness and supply their energy independently. Similarly, small-scale power facilities and grids would eliminate the need for operators because “[l]arge power stations need large companies to run them; small local plants have no such need” (Scheer 2004: 86). Finally, renewable energy would disrupt or at least weaken the dominant role played by the large investment banks in the energy industry because, “[i]n decentralized market, all potential investors, not just banks, can be sources of finance; the large investment banks will be just one player among many” (ivi). Scheer’s observations were, to use a euphemism, utterly optimistic. As discussed in this thesis, renewable energy is still far from abandoning extraction, as its technology relies on critical materials that must be mined. At the same time, because its sources are intermittent, renewable energy’s grid integration will keep requiring the “database work” of grid operators, which entails the process of “generating data and making them usable in computer models to keep the various actors that exchange electricity in computational tandem” (Özden-Schilling 2016: 68-9). Moreover, as intergovernmental institutions envision it, the energy transition will very unlikely do without the capital pool of institutional investors (IRENA 2020). Where does renewable energy’s democratic potential lie, then?

One way anthropologists have approached democracy is through the lens of the economy. As Keith Hart (2015) points out, the struggle for greater democracy is a political struggle increasingly involving economic organisation. In this sense, the fight for democracy does not necessarily imply radical politics rejecting the capitalist system as “an engine of economic growth and inequality” (Hart 2015: 5). Rather, it identifies the economy as the “loci of power” (Johanisova & Wolf 2012: 563), which has gradually shifted from state bureaucracies, municipalities, and local communities to corporations and, more impersonally, the global market. In the view of free market

proponents, markets operate democratically in that everyone effectively votes with their purchasing power. However, corporations wield far more financial influence than communities and individuals. The movement for what can be called 'economic democracy' involves the variety of initiatives through which ordinary citizens organise, individually or collectively, to oppose the overwhelming economic power of corporations and seek alternatives that can redistribute that power. By focusing on the changing forms of power that revolve around economic activity, anthropology can bring new perspectives on democracy, which has been "couched in other frameworks and embedded in other discussions" (Paley 2002: 470). These discussions have primarily regarded fallen dictatorial regimes and recently returned liberal systems while leaving aside contexts "not undergoing overt institutional change" (ivi: 471). Energy presents an opportunity for anthropology to examine how democratic processes are imagined in specific contexts where neoliberal policies increase the possibilities for citizens to participate in the market and propose alternatives to the status quo. Through exploring the links between energy and economic activity, we can raise central questions about democracy, such as: What does participation mean? Who gets to participate, and who is excluded? How are abstract concepts like justice, fairness, freedom, and solidarity conceptualised?

There are already some studies that point in this direction. Cymene Howe and Dominic Boyer (2016) describe the Southern Mexican Yansa Ixtepec partnership, an initiative of a rural farming cooperative and an NGO to establish the first Latin America's community-owned wind park, as an example that can bring about a shift in political power. Unlike the typical corporately owned and transnationally managed wind parks prevalent in Mexico, which typically allocate around 1.5–2.5% of their net profits to landowners as rents, the Yansa Ixtepec park stands out by committing to return 50% of its net profits to the local community. This allocation aims to finance ambitious social development initiatives, including healthcare, retirement care, and new opportunities for women and youth. At the same time, anthropology needs to pay attention to how policy initiatives draw on the language of democracy to underpin



infrastructural projects imbued with techno-economic principles. From this point of view, it would be crucial to follow the development of renewable energy collectives in Italy and similar national projects elsewhere. What imaginaries prevail? How are the instances of communities attended? What kind of democratic processes are enabled?

### Energy and Citizenship

At least in liberal democratic thought, citizenship is intimately related to politics and the recognition and protection of rights central to the democratic governance of a community (usually a nation). However, citizenship is primarily concerned with the subjects that form such a community. From Locke onwards, liberal citizenship has been viewed as the status of an individual endowed with rights and corresponding duties within a national political formation (Marshall 1983). However, various forms of citizenship are observed globally, and citizenship is better understood as a complex set of practices to make claims on different political levels where the nation-state is merely one aspect (Lazar 2023). Anthropology has deconstructed the normative assumptions of liberal citizenship by exploring how political membership and subjectivity are formed in specific contexts. In other words, anthropologists strive to move from prescriptive notions of citizenship to examine citizens' lived realities and struggles critically. Anthropology can offer descriptive analyses of what happens on the ground by studying the "legal, bureaucratic, ideological, and material frameworks that condition practices and ideas about government and participation in politics" (Lazar 2023: 10). These analyses can shed light on how citizenship manifests in practice, including how citizens are produced as subjects through governance technologies within different institutions and how they organise and establish political identities. Studies of migrant communities, for example, show how people perceive themselves as citizens of a nation regardless of their legal status. They draw on moral qualities that they view as virtuous, like being workers and law-abiding individuals (Fumanti 2010) or through membership in other institutions such as a church (Fumanti 2022). On the other hand, differential forms of citizenship, such as 'cultural,' 'ethnic,' or

‘indigenous’ citizenship, are evoked in connection to the struggles of individuals and groups to claim their rights in contexts where colonial domination has produced suppression, discrimination, marginalisation, and displacement of native populations (de la Peña, 2002; Povinelli, 2002). Anthropological examinations of the functioning of citizenship across various contexts reveal that processes of subject formation are a crucial aspect to consider. Ethnographic research demonstrates that the formation of political subjects occurs through both top-down and bottom-up processes, so much so that citizenship has been defined as a “process of self-making and being-made” (Ong 1996: 737, quoted in Lazar 2023: 6).

Studies that explore the interactions between individuals and state institutions have been conducted, among others, in the realm of infrastructures. Anita Von Schnitzler’s (2016) research on prepaid water meters in South Africa provides an insightful analysis of how states construct citizenship through infrastructure. Von Schnitzler (2008) shows how being a citizen in the context of post-apartheid neoliberal reforms is contingent on effectively blending civic responsibilities with entrepreneurial behaviour grounded on the ability to make calculated water-use decisions. The public infrastructure that 20th-century governments took a central role in constructing, overseeing, and regulating is undergoing revaluation and facing challenges in various services subject to neoliberal restructuring. The public, once seen as the beneficiary of infrastructural projects, is now increasingly targeted as a functional component of the operation of the infrastructure (Collier et al. 2016). In this context, anthropologists need to pay attention to the public nature of infrastructure as a matter under dispute, the arguments and counterarguments arising regarding the values promoted by infrastructure, the communities these values benefit, the types of expertise necessary to define these values, and the technical methods needed to achieve them.

In Chapter 6, I offered a glimpse into the processes at work in creating infrastructural publics through reconfiguring the Italian electricity system around energy collectives as envisioned by policymakers and energy authorities. These actors emphasised

citizens' responsibility to contribute to a properly functioning decentralised grid by ensuring flexibility. In their appeal, policymakers and energy authorities invoked monetary values to motivate citizens to participate in this infrastructural reconfiguration. In doing so, citizens were framed, first and foremost, as rational economic actors. Within this framework, political and scholarly appeals to energy citizenship risk assume a normative character contingent on citizens' alignment with and participation in global, regional, or local decarbonisation goals (Silvast & Valkenburg 2023). How can anthropology bring to light and better understand how citizenship emerges in collective and individual energy endeavours that deviate from institutional frameworks? One way could be by attending to people's claims that are differently positioned within the discussion about energy sources. For instance, in the United States, people from across the country have come together on a platform called Energy Citizens, pursuing the shared objective of championing the oil and gas industry and promoting policies supporting the growth and stability of such industry (*Energy Citizens*, n.d.). Although their methods and views might diverge from those of people who support the transition to renewables, they might share a unified goal: creating a better future for all. To this aim, energy ethics provides an invaluable approach to studying how personal concerns and commitments are articulated with energy in claims to energy citizenship. In so doing, anthropology can examine the relationship between energy and citizenship beyond Foucauldian approaches that seek to understand how citizenship is formed through governmentality and citizen-consumer approaches that limit people's agency in their economic capabilities.

## Epilogue

On a scorching July evening, a group of *ènostra* staff and I left the coworking space in Milan and headed to a bar nearby. I was set to leave Milan a few days later, and they wanted to bid me farewell with some drinks and refreshments. They were among the youngest workers, most of whom had joined *ènostra* in the last couple of years. They were excited and anxious at the same time about what the future held for the

cooperative and themselves. As we left the bar, we hugged and exchanged well wishes for the future before each headed their separate ways. Davide and I stayed behind at the entrance and kept chatting. Davide, the one among them with the longest tenure at *ènostra*, shared that the cooperative had undergone a transformation period and that the next three years of the new Board of Directors' mandate would be crucial in defining a trajectory. Davide firmly believed in the spirit of social movement that drove *ènostra* and held a strong view that *ènostra* should maintain its cooperative structure. However, he knew *ènostra* was taking on a more complex organisational structure and moving towards an increasingly 'corporate' form. *ènostra* members had just elected a new Board at the general meeting in June. Among the board members, an individual stood out as coming from outside the world of cooperativism. She was an alumnus of Bocconi University, a world-leading institute in business, management, economics, and finance, and she had a professional background in investment banking. After working for a global financial group, she pivoted to an investment management business in the field of solar energy. She was also recently appointed ambassador for an overseas foundation that aimed to "bring solar where it matters most," as her short bio on *ènostra*'s website read, to schools and hospitals and to ensure access to water in the poorest areas of Sub-Saharan Africa. Like others, Davide was curious to see how she would fit into *ènostra* and incorporate her financial background into the cooperative. Would this mean a step towards the 'financialisation' of the cooperative that some of my interlocutors feared would challenge the values of *ènostra*? Would *ènostra* leave the non-profit sector and change its organisational structure to a Benefit Corporation (B-Corp), which some deemed viable to harmonise financial with social and environmental goals? As I wrap up the thesis, the Italian Ministry of Environment and Energy Security has finalised the implementation of decrees for renewable energy collectives, which it estimates will scale up the projects nationwide. What will this mean for *ènostra*'s strategy of REC design and development? Will *ènostra* support the blooming of REC autonomous initiatives, or will they seek to incorporate them into the cooperative's ambition to generate a community economy? These are some questions

my interlocutors and I will be wondering about and, hopefully, keep looking for answers together.

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