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Energy citizenship through crises: Analysis of citizens' letters

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ABSTRACT:
The EU believes citizens should have a central role in the globally significant energy transition. The concept of energy citizenship recognizes citizens as active participants in the energy system instead of passive consumers. In principle, energy citizenship refers to perceived empowerment to decide energy use. The concept is expected to have a role in tackling climate change. Traditionally energy transition has been mainly seen as technological progress supported by financial and regulatory instruments. These instruments have been efficient, especially in increasing renewable energy production. While energy consumption habits have been studied extensively, the perceived empowerment to make decisions about energy use has not been adequately addressed in studies.
This study extends and categorizes the concept of energy citizenship by shedding light on citizens' personal experiences during the energy crisis and its connection to being active citizens. The data consists of qualitative data from citizens' letters written after the Russian invasion in Ukraine. The study found four different types of energy citizenship: authoritarian, follower, sobriety, and technocratic enlightening the acceptance of energy policy.

Keywords: Energy transition, energy citizenship, energy crisis

1. Introduction

The energy crisis stemming from a Russian invasion of Ukraine reshaped energy politics in Finland and resulted in increasing energy prices and large-scale energy-saving campaigns. The Ukraine conflict drove prices to their highest levels in a decade.

By late July 2022, Russia had cut gas supplies to Europe while both Nord Stream 1 and Nord Stream 2 pipelines experienced fires and significant leaks, raising concerns about possible sabotage (Atheed, 2024). These events highlighted the urgency for the EU to reduce its reliance on imported fossil fuels. The disruption of peace within the EU has unfolded amid efforts toward an energy transition while an economic system closely linked to oil and gas revealed its vulnerability. (Hercegová, 2022)

In 2023 energy prices reached ten times higher than the average of the past five years resulting in millions of Europeans spending a record portion of their income on energy. Citizens across Europe voluntarily reduced their consumption of gas, fuel, and electricity while governments promised aid for households. However, statistics showed that citizens did not experience significant relief as a result. (Fabra, 2023) According to Statistics Finland, in 2020 the end use of energy products used by Finns in Finland and abroad decreased by 8% from the previous year. While an energy demand reduction was observed in Europe, little is known about how the crisis impacted citizens' perspectives

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on energy, democracy, and justice. Differences in income do not entirely explain the perspectives towards energy policy and energy transition. (OSF, 2025)

To study these perspectives, we apply the term energy citizenship which was first introduced by Patrick Devine-Wright (Devine-Wright, 2012). The concept of energy citizenship recognizes citizens as active participants in the energy system instead of passive consumers. The term has gained interest because the ongoing much-needed energy transition includes engaging citizens. For example, The EU has over the years developed and confirmed its vision that citizens should have a central role in the energy transition. (von Homeyer & al, 2024)

The concepts of energy citizenship, energy democracy, and energy justice are highly significant for the current energy policy arena. The risk that an undemocratic and unequal energy system stemming from fossil fuels will be transposed into the renewables-based energy system of the future should be avoided (Overland, 2019).

Previous studies have covered the role and scale of public engagement in energy transitions (Armstrong, 2021) narratives (Rinkinen & al, 2024), and attitudes towards energy reduction (Gârdan & al, 2024). Also, the impacts of the energy crisis have been studied indicating that the energy crisis increased knowledge gaps between different groups in society. (Frings & al, 2024) In addition, the energy crisis may break citizens' trust in society (Vrana et al, 2023).

During history, energy crises have shaped the energy policy and acceleration of energy technologies (Żuk, & Żuk, 2022). The instability of the global energy arena is expected to continue, and therefore it is vital to study experiences from the energy crisis. This study expands the concept of energy citizenship by exploring how energy citizenship is perceived during the energy crises. The data consists of 22 texts from the Finnish citizens received from the writing call in 2022-2023. Participants in the writing call were prompted to express their thoughts and emotions regarding the surge in energy prices.

Current environmental challenges together with increasing stakeholder expectations and stricter regulations put companies under pressure to manage their operations more sustainably. However, while there are many ideas about what to do to improve the sustainability of operations and supply chains, the implementation of sustainability-related strategies and measures seems to be challenging (Doppelt, 2017). This is even more the case, when processes cannot be controlled entirely by one organisation, but other companies such as service companies are involved in their execution. Then, the change of processes requires the cooperation of all parties involved in the process, the commitment of the leadership for cooperative efforts and the willingness of individuals to implement change for more sustainability cooperatively (Grossmann & Lobnig., 2013).

2. Energy citizenship

"Citizenship" refers to a person's social standing and their political and legal duties towards the state. Broadly speaking, as a complex and layered historical concept, citizenship governs the relationship between an individual and a political entity (Tilly, 1995). Although "citizenship" has deep historical roots, efforts to align "citizenship" with energy are relatively new. The historical period that highlights the importance of

citizenship in the context of energy is the shift from a fossil-based to a renewable-based energy system (Lennon et al., 2019b).

Energy citizenship stems from the need for a decentralized energy system, based on renewable energy. Citizens take on various dynamic roles within the energy sector, which can intersect and evolve over time. Terms like active consumer, prosumer, and the broader 'energy citizen' capture these roles. More and more, citizens are being invited to engage in the planning and development of new energy infrastructure, though often under specific conditions. (Lennon & al, 2019b)

Dimensions of energy citizenship include awareness, skills, responsibilities, and opportunities. Drivers for energy citizenship included prosumerism (combining the words consumer ja producer), decentralization of the energy system, energy poverty, and environmental anxiety (Biresselioglu, 2024). Another study described collective identities of prosumers recognizing conflicts emerging around power dynamics pointing out that the ideals of democracy and inclusion may be compromised by the practical needs of finding consensus in decision-making resulting inevitably to a lower participation of citizens. (Campos & Marín-González, 2020) Energy citizenship is part of the desired just energy transition and EU energy strategy. Policymakers recognize its potential to demonstrate the types of roles they would like to see citizens taking up (e.g. European Commission, 2019)

Previously the focus of the research has been on the roles and expectations of individuals regarding the energy system (Lennon & al, 2019b). The concept of energy citizenship has not always been used positively. Also, the fossil fuel industry has justified its harmful actions by 'voices of the people', democracy, and justice in debates over energy futures. One example of this is the 'Responsible Energy Citizen Coalition' that was created to influence the EU policies regarding shale gas. The widest analysis of energy citizenship was conducted by Dumphy & al (2023) dividing the concept based on access to energy, consumption, production, and politics and governance focusing on those who are at the margins of society.

Energy citizenship highlights the importance of individuals engaging in energy systems, often viewing them as key drivers of change. It offers a background to approach different ways in which citizens are becoming actively involved in energy transition, and engaging politically, either as consumers, users or activists. On the other hand, energy democracy emphasizes the creation of new participatory governance structures, typically positioning groups or communities as the main agents of change.

This transition necessitates social and economic changes, which can only occur in an inclusive environment. Therefore, energy citizenship becomes essential for achieving climate goals, rather than being just another form of civic or political "citizenship" Devine-Wright (2012). Research on energy citizenship can enlighten the severe polarization among people. It can also bring different sectors of energy such as heating, traffic, and electricity closer together. (Heiskanen et al, 2021) This study enlightens the concept of energy citizenship and sheds light on the role of the energy crisis in it.

Previously, discussions on the role of citizens in the energy transition have ignored crucial questions of inequality and exclusion. (Lennon & al, 2019a). This study sheds light on the sense of participation during the energy crisis. Motivations for participation in energy systems include concerns about the environmental and climate impacts of

traditional energy technologies, participation in the energy transition, and influence in the community and trust. (Lennon & Dumphy, 2024)

Bell et al. (2020) recognizes four aspects of energy transitions; namely political, economic, socio-ecological, and technological, all of which require democratic ownership of energy systems and collaborative decision-making. Increased local energy ownership is a significant part of energy transition and energy democracy. Energy citizenship is often linked to sustainability transition, energy democracy, and energy justice.

One of the issues with applying the concept of energy citizenship for a larger sustainability transition is tensions arising from the individualization of energy consumption – thus individualizing the problem of reducing consumption – rather than positioning consumption as an exemplar of socially-based practices (Lennon & al, 2019a).

When citizens take the lead and decisions are made with a focus on the community, it opens up possibilities for fairer and more inclusive policies. However, it's crucial to address participation barriers, particularly those stemming from gender inequalities. (Hesselman & Tirado Herrero, 2020) Laakso & al (2023) found out that current forms of democracy may accelerate but also hinder the energy transition.

Energy democracy and energy citizenship are both solution-focused concepts addressing the need for swift decarbonization, accountability, and democratization within the energy sector. Energy democracy originated as a politically driven idea rooted in social movements, whereas energy citizenship is a more specific and scholarly concept that encompasses individual actions of participatory energy consumption and production and highlight the responsibilities and right of individuals in energy systems

Energy democracy sometimes means public engagement exercised in several different ways and it does not necessarily require democratic government. A study from the non-democratic country of Thailand discovered that localized forms of energy democracy also underlined new opportunities for citizen participation, while 'public engagement' has also become open to new meanings. (Delina, 2018)

Energy democracy encompasses more than just representation, decision-making, and citizen involvement. Its other aspects—distributive, procedural, and discursive—intertwine with the principles of energy justice, highlighting the connection between democracy and justice. (Becker and Naumann, 2017 p.2) Energy democracy and energy justice are regarded as the final goals of energy citizenship (Fig 1). Energy democracy is an ideal situation, in which citizens are the recipients, stakeholders (as consumers/producers (Prosumers)) and account holders of the entire energy sector policy" ([13], p. 35). (Wahlund & Palm, 2022)

Energy justice has been defined as the fair distribution of 'benefits and costs of energy services' and 'representative and impartial energy decision-making' (Sovacool and Dworkin, 2015). The energy transition with energy democracy and energy justice is not only driven by technological innovations but also by socio-political transformations. Knowledge production and socio-cultural learning could help encourage individuals to become energy citizens. (Campos and Marín-Gonz´alez, 2020).

Previous literature has argued that energy should be considered a 'human right' and a social 'commons' while a citizen-led, community-oriented decision-making process creates equal opportunities for groups that have traditionally been left out of decision-

making. According to Dryzek et al. (2020), citizens' assemblies provide "a productive integration of scientific knowledge, lay knowledge, and public values.

Additionally, previous research has highlighted the importance of distributional justice, which is supported by recognitional and procedural justice. To ensure equitable distribution of resources, access to energy, and inclusivity, policies must be crafted to acknowledge and respect diverse identities while guaranteeing fair and just processes in resource or benefit allocation. (Jenkins & al, 2016)

The literature recognizes three approaches to citizenship, which are technocratic (Bertsou & al, 2024), authoritarianism (Turner, 2013), and energy sobriety (Fergus & Chalmers, 2021). The technocratic narrative focuses on how technology mainly runs the future of energy production and consumption. A second narrative highlights the role of rising authoritarian powers. A third narrative claims that the future is shaped by decentralized modest energy production with some form of central state regulation.

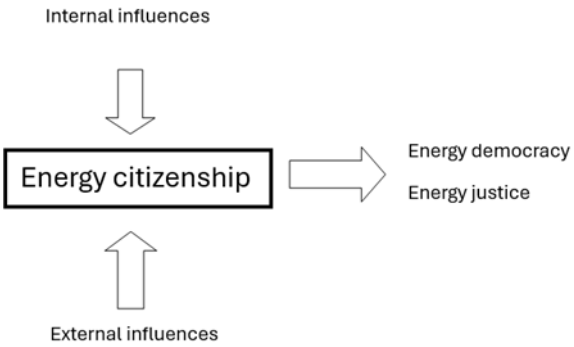

Figure 1*. The theoretical framework for research*

3. Materials and methods

The data comprises personal stories about experiences during the energy crisis of 2022 and 2023 collected by Finnish Literature Society and distributed by Finnish Social Science Data Archive. Participants in the writing call were prompted to express their thoughts and emotions regarding the surge in energy prices. The call was open to anyone who wanted to share their memories of the energy crisis. The call for entries was published on the website of the Finnish Literary Society. Several guiding questions were provided for the respondents. These questions explored how recent crises have influenced their consumption habits and how the rising costs have impacted their personal energy usage. Additionally, respondents were asked about their willingness to make sacrifices for energy-saving initiatives and what they would be unwilling to forgo. They were also invited to share their perspectives on the future.

I started the analysis with open coding and making notes leading to initial coding and categorizing the letters into four categories. The initial coding was on repeated codes from the texts that were constantly brought up. Then I moved on to deriving themes from the categorized letters. These themes were less frequent and some of them were only

mentioned once. They brought up a new perspective on energy citizenship. The coding of the letters is presented in Fig 2.

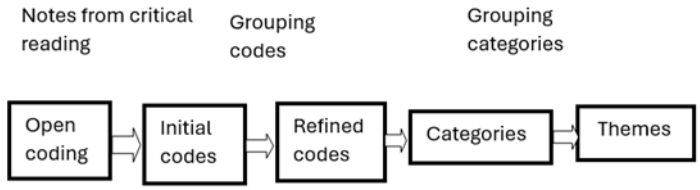

Figure 2*. Coding of the letters*

4. Results

Based on the texts we found four categories of energy citizenships including authoritarian, follower, sobriety, and technocratic. Proportions of the categories are presented in figure 3.

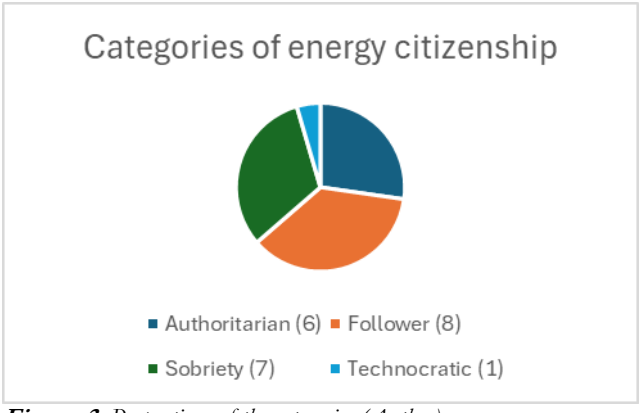

Figure 3. *Proportions of the categories (Author)*

Here I define authoritarians (Table 1) as people who do not necessarily see an authoritarian system as favorable or desirable, but as a fact that cannot be avoided. Authoritarian citizen here means a citizen who does not believe a democratic system is or will be a prevailing system. This does not mean authoritarian citizens here desire an authoritarian system or would actively be anti-democratic. For them, the authoritarian system is the only existing and prevailing system like a law of nature. For them, it is not a system they, or the politician they vote for, can change.

Authoritarian texts reflect low trust in democratically chosen politicians, parties, state-owned companies, and media. They do not believe that politicians are willing or able to do their best to solve the crisis. They are also suspicious of modern technology. Some believe that the people in power benefit from crisis and fear. They don't believe we live

in an actual democracy making statements such as" The whole of humankind is under dictatorship"

Followers (Table 1.) compare their lifestyle to others. They are focusing on being good citizens but not reporting large changes in their energy consumption. They do not analyze the problems or solutions to the energy crisis.

Sobriety texts (Table 1) focus clearly on saving energy and living modestly. Some state that we consume too much energy, and we have gotten used to too high a state of living. Technocratic citizens (Table 1) here mean someone who believes that technical knowledge and skills, efficiency, rationality, and evidence-based decision-making will solve all global problems. Technocratic citizens have a positive view of the future driven by technological possibilities.

Table 1. Examples of initial coding and categories (Author)

Initial code	Refined codes	Categories
"Energy companies grossly exploited the created panic"	Distrust in energy companies	Authoritarian
"No one wants to publish the life cycle of batteries and the environmental problems they cause"	Negative attitude on modern technology	
	Corruption	
"Electric car manufacturers, especially the battery industry, are apparently behind it"	Low sense of security	
"When driving past power stations, they are too easy targets if someone wants to terrorize life in Finland."	Negative attitude towards democratic elections	
"The writing of parliamentary election	Distrust in politicians	
candidates has hindered the newspaper's other writing"	Distrust in media	

"I no longer trust the parties I used to vote for." Many experts and imperts have written their opinions in the media.		
"I look forward to the progress of research into hydrogen energy"	Positive attitude towards modern technology	Technocratic
"At the moment, it feels like there's no need for savings. After all, isn't there enough electricity for everyone now?"	Negative attitude towards saving energy	
"The habits and attitudes acquired in childhood continue to have an impact on"	Learned habits of saving	Sobriety
"As a low-income student, my spending habits are already quite meager"	Life situation	
"If I used to be lukewarm about fossil energy sources, I'm even more against it about it now."	Negative attitude towards fossil fuels.	
"People's inability to adapt to difficult situations involves the notion of a mystical "normal state""	Questioning the normal consumption habits	
"We live in a world of ostentatious consumption as if we had never heard of any	Linking overconsumption with environmental problems	

environmental problems."		
"The authorities are prepared for this"	Trust in authorities	Followers
"I have little influence on energy consumption."	No power over energy consumption	
"The crises have not affected our consumption habits and choices."	Crises have minor impacts	

4.1 Authoritarian

Authoritarian citizens reflect high obedience. They highlight their obedience to authorities and exaggerate largely the power of authorities. For example, one respondent wrote:

"*We wore blue face masks and in stores we focused on red price tags. We also had to save money. We could and had to get vaccinated and I took all the possible shots against corona and the flu, receiving some on the left and some on the right arm."*

In reality, wearing masks and getting vaccinations during the pandemic were recommended, not ordered by the law. Authorities made no statements about people's personal use of money or saving money. The necessary acts of the authorities are seen as oppression of ordinary people is seen in statements such as:

"*we were sent to a concentration camp" (referring to travel restrictions during the pandemic)*

Authoritarian citizens do not reflect high preparedness for reducing energy consumption. Their sacrifices are modest and stated as:

"I have given up on unnecessary car drives"

They feel useless and expect to be sacrificed by society. For example, one respondent wrote:

"Or give us a pill so we can get out of the way if we feel like it."

Authoritarian citizens find it important to be good citizens personally and explain what they have donated to Ukraine. Even if they argue about being decent people one of the respondents thought they might not deserve the lifestyle they are used to. In spite of explaining all the sacrifices they have made because of the energy crises, they feel like their life is detached from the crisis. For example, they describe their life as follows:

"However, everyday life is lived here…my most important task is taking care of my spouse, who is also a cancer survivor."

The main actors capable of making a change in authoritarian texts are energy companies, Russia, Finland's NATO membership, building companies, and food sellers.

Future perspectives vary most among authoritarian citizens. In the darkest perspectives, people expected war, collapse of health care, and destruction of nature stating as follows:

"In the longer term, I see myself alone in my apartment, hungry and in diapers, with a robot just popping pills into my mouth when it's time, because the elderly's life mission is to keep the pharmaceutical factories running, as we can already see from the elderly care around us. If things get worse, I also have pain… If the worst happens, the US and Russia will start a war with each other. Then, as a NATO border country, we have little else to fear except that one morning our homeland will look the same as the missile-ravaged Ukraine in the news now…nature will be destroyed anyway."

4.2 Followers

Followers reflect a passive attitude towards changing their habits or even following the news about energy crises. They do not actively try to gain information about energy. They have noticed increased prices but feel unable to change their behavior. They haven't prepared themselves for any kind of crisis and justify their passivity in the uncertainty of the situation. An example of the statements is:

"I don't know exactly what's coming"

During the crises, they didn't change consumption habits. Saving energy caused *"primitive fear of not surviving"* for one citizen. Followers question the necessity of saving energy. One respondent wrote:

"What if, in the end, I fought and died for nothing?"

Followers feel like they have already made sacrifices comparing their lives to those of previous generations. They are the group comparing themselves most to others. For example, one respondent wrote:

"Doesn't it sound wrong that a thirty-something in today's society doesn't feel like they can even dream of the same kind of steady, safe everyday life that their parents probably lived?"

Despite being passive and completely unable to change their behavior they regard themselves as good people participating in the energy system. Future perspectives of the followers vary somewhat, but in general, the view is positive with high uncertainty. One respondent summarized his expectations about the future:

"Everything can change radically and/or quickly or not change at all, we don't know. I don't see the future as anything but I wait and of course, hope for the best and at the same time I try to manipulate myself to be flexible and resilient against all possible "evil""

However, some of the respondents expected a very dark future with a peak in suicides. The main actors in the follower's text are The Finnish people and people in general. Followers did not highlight authorities or companies as major players in energy crises.

4.3 Sobriety

Energy sobriety is a term related to a very low consumption of energy and a degrowth mentality. Texts of citizens with energy sobriety are strongly driven by the learned saving habits from their past. They even tend to romanticize the poverty they have experienced in the past. For example, One respondent wrote:

"The old school photos are almost touching, we wore such poor clothes"

They report very large sacrifices made but consider them small. One respondent explained:

"However, I haven't given up anything other than going to the sauna."

Some of the respondents are prepared for even greater sacrifices. One respondent wrote:
"I am personally ready for what Ukraine suffers every day in terms of energy conservation. Planned power outages, all kinds of reduction in the use of home electronics, etc. would be completely bearable…"

Citizens with sobriety prepared for the crisis than other groups and they report being used to *"saving it for the bad day"*

Even if saving energy is natural for sobriety citizens, they might have mixed feelings about saving energy. Some of them have a very negative attitude towards saving too much energy beyond their comfort zone. This was brought up in statements such as:
"But I got used to a frugal life and I find it quite natural…. The thought of power outages terrifies me immensely… I don't like candles at all, because I always associate them with the poverty in 1950s."

Sobriety compared the crisis to the previous energy crisis in history and speculated about future crises. Sobriety citizens believe energy scarcity is inevitable in the future, not an option we have by choice. They don't believe that technological progress will allow us to consume large amounts of energy in the future. One respondent explained:
"It's good to learn to be frugal with water right away, so you don't develop bad habits."

Sobriety citizens notice their privileges more often than other groups. They compare themselves to larger global populations instead of their neighbors or people in their community. They are very aware of their position globally speaking. This was brought up in a statement such as:
"I consider my own lifestyle and energy use to be quite moderate compared to the average Finn. Globally speaking, it is still energy intensive."

Some sobriety citizens are critical of the capitalist system being able to thrive. They question eternal economic growth and believe economic growth will not dictate the world order in the future. Sobriety citizens highlighted the role of education and the need for binding regulation more than other groups.

The main actors in sobriety citizens talked about were themselves. They considered having a notable role in the energy crisis by saving energy. Also, the building companies and Russian President Putin were regarded to have a big role in an energy crisis.

4.4. Technocratic

Only one of the respondents fell into the category of technocratic citizen. He considered saving energy a fun game leading to efficiency and saving money. However, he thought it was fun only because it was not obliged stating as follows:
"I understand that it (saving energy) can only be fun as long as it's not mandatory. Fortunately, we don't have to….I calculated the costs of heating up sauna and baking at different prices per cent…Sometimes hunting for savings is like a game"

Technocratic citizen had the most positive view on the future, which was brough up in a statement:
"The war in Ukraine has brought people together, money has been raised, a hand has been given, the EU has also stood as a surprisingly united front, it has given hope."

He did not see energy saving at large scale inevitable for society. He had high expectations on hydrogen technology and believed technology will solve the energy crises without energy sobriety.

5. Discussion

The research question here was, how energy citizenship is perceived during the energy crises. The research was from Finland, which has been a target of Russian hybrid operations and is dependent on imported energy. Previously, energy citizenship has not been studied during an energy crisis and our study found that experiences of energy crisis revealed four types of energy citizenships of authoritarian, sobriety, technocratic, and follower.

The study expanded the concept of energy citizenship. One of the findings was that people are driven by the desire to seem like a good or decent citizen. However, what is decent varies a lot between the categories of energy citizenship. Those who changed their behavior least highlighted the goodness of their lifestyle, found their sacrifices big, and were most bitter about their situation. Motivation for reducing energy consumption is not largely driven by environmental anxiety, but from learned habits in the past, life situations, and a desire to be a decent citizen. Sobriety citizens highlighted their responsibilities more than others. The concept of energy citizenship should probably address the responsibilities of citizens as well as the right to energy. According to statistics (Eurostat, 2022), there is some variance in energy mix between the European countries, but the war in Ukraine, climate targets, economic policy and culture makes the energy citizenship comparable in these countries. However, the results somewhat reflect the survey conducted by EU (EU, 2023). The survey found that Europeans wish for access to more affordable energy prices (30%), decreasing energy consumption across Europe (27%) and reducing European energy imports and increasing European energy independence (26%). However, in Finland as a neighboring country of Russia, independence was more important for the respondents.

Then the concept would slide closer to the original theory of citizenship, that frames citizenship as result of rights and responsibilities (Turner 1990). One might critique that this theory does not address enough socio-economic capacity of individuals to act. However, here the socio-economic capacity is regarded as a part of rights.

This study confirms the tensions that arise from the individualization of energy consumption. The energy consumption and reduction of energy consumption should not be an individualized problem but regulated by the authorities. Previous studies stated that motivation for participation in energy systems include environmental concerns and a possibility of influencing the community (Lennon & Dumphy, 2024). The study found also the motivation of being a decent citizen, the desire for security, and learned habits in the past.

When decisions are made with a focus on the community, it opens up possibilities for fairer and more inclusive policies. However, it's crucial to address barriers to participation. Here the finding was that citizens, regardless of their energy citizenship category, were not happy with the small role of building companies in saving energy. Somehow the building companies are not regarded as a smooth way of participating in energy systems.

One of the major findings of the study was the marginal size of technocratic citizens. The great majority of citizens do not believe that technology can solve our problems. This is supported by a study from The Military College of South Carolina

(Watson & al, 2015), confirming that less than 15% of engineering students chose the field because of the positive social impact of technology in society. However, the study on young people's attitudes revealed that belief in technology is prevalent. (Rasa & Laherto, 2022). Lavezzolo (2022) found that the technocratic attitude was slightly on the rise during the pandemic. The results of this study reveal much weaker trust in technology, because of the different research design, data and methodology. Future research should clarify people's attitudes toward technology and social good. This is a highly relevant question for all technical universities and technology companies.

Another significant finding was the high number of authoritarian-minded citizens, who do not believe that democracy can solve societal problems. The question here is, is this a self-fulfilling prophecy? If people do not believe democracy can solve their problems, do they vote for democratic candidates? Previously, it has been found that participation in energy systems can push democracy also in non-democratic countries. However, our results confirm that the energy crisis may break citizens' trust in the authorities and weaken their sense of participation and belief in democracy in general as well also in a democratic country. Also, none of the respondents wished to have more freedom to make decisions about energy. Many respondents wished for more regulation to limit the consumption of energy. Authoritarian citizens wished for others while sobriety citizens wished for all the citizens including themselves to be more actively involved. Security and sustaining a stable society were themes cutting all the respondents regardless of their category.

Energy citizenship requires a certain freedom to make decisions about energy. Making decisions because of economic or regulatory burdens does not increase the sense of participation. Environmental awareness or the cost of energy does not push people to change their behavior or participate in the energy system, but more of learned habits and an idea of a decent person living a decent life.

This study reveals that people see the energy system as wide global system. None of the respondents talked about the challenging characteristics of Finland such as extremely cold weather and long distances, that make saving energy very difficult. Energy might help people to see themselves as global citizens and alter their considerations about democracy and politics.

6. Conclusions

This study explored the concept of energy citizenship during the energy crisis triggered by the Russian invasion of Ukraine. By analyzing citizens' letters identifying four distinct types of energy citizenship: authoritarian, follower, sobriety, and technocratic. Each type reflects a different orientation towards energy consumption and the broader energy system.

The findings highlight that the motivation for reducing energy consumption is not solely driven by environmental concerns but also by learned habits, life situations, and the desire to be perceived as a decent citizen. The study also confirms significant tensions arising from the individualization of energy consumption, suggesting that regulatory measures may be more effective in promoting energy-saving behaviors.

The marginal presence of technocratic citizens indicates a general skepticism toward the ability of technology alone to solve energy crises. This contrasts with the more prevalent authoritarian mindset, which reflects a lack of trust in democratic processes and a preference for more regulated and controlled approaches to energy management.

The study underscores the importance of addressing participation barriers and ensuring that energy policies are inclusive and equitable. The role of building companies and other stakeholders in the energy system needs to be more prominent to facilitate broader citizen engagement. Future policy-making should include clearer roles for companies in community-level transition plans and enhance public trust through visible collaboration and communication. These policies should clearly address societal worries concerning the broader environmental impact of oil exploration, production and transport.

This study has some limitations since it relies only on a limited source of data. It is possible that some perspectives did not show up in the writing call. From the data, the evaluation of the accurate proportions of the categories in society was not possible. Also, it was not possible to conclude the extent of the technocratic mid set. However, the study did prove that it is possible to derive different perspectives and nuances of energy citizenship from a limited source of data.

The existing literature on energy citizenship is still relatively small aiming to define the concept, but it is evidently growing**.** Overall, this research expands the understanding of energy citizenship by demonstrating how crises can shape citizens' perceptions and behaviors. This study goes beyond behavior change and attitudes on small-scale decentralized sites considering the identity of citizens as energy consumers.

The results calls for considering the diverse motivations and attitudes of different citizen groups towards energy. Future research should continue to explore these dynamics and develop strategies to enhance citizen participation in the energy transition. There is a need for more case studies from larger areas and deeper studies on cultural aspects affecting energy citizenship as well as studies on broader and more diverse populations to determine how technocratic beliefs vary by age, profession, or exposure to technological discourse.

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