



Foregrounding citizen imaginaries: Exploring just energy futures through a citizens' assembly in Lebanon

Ala'a Shehabi^{a,*},¹, Muzna Al-Masri^{b,2}

^a University College London, Gower Street, London WC1E 6BT, United Kingdom

^b Ebla Research Collective, Beirut, Lebanon

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ABSTRACT

Energy injustice is driven by structural inequalities that are evident in differential electricity provision, access and affordability that harm different groups in different ways. When an uprising began in Lebanon in 2019, the issue of energy justice emerged as a prominent grievance. We experimented with a combined democratic-justice approach to energy future-making through a Citizens' Assembly (CA) on energy justice. We emerged with four imaginaries based on the discourses and narratives expounded on during the deliberation sessions of the CA. The citizens' dystopic imaginary sits alongside a state-centric petro-masculine imaginary. The empirical findings from the CA demonstrate that to move society towards a just transition, the politics of energy can subsume sustainability and the 'ecological fix' imaginary. Justice principles require to add more urgent priorities like better access and affordability for all. The CA experiment demonstrates how critical political moments can make way for more radical and alternative visions of sustainable energy futures but also how competing imaginaries can complicate questions of sustainability when a justice approach is used.

1. Introduction

Beirut's *Électricité du Liban* (EDL) building was built in 1972 and is the base of the state-owned electricity company's operations. Standing 14 storeys high, it contains the National Control Centre "NCC" which controls nation-wide power system operations, distribution and billing. EDL symbolised Beirut's "golden age" for planning, modernist architectural visions and local infrastructural trajectories, of the fifties and sixties. Designed in 1965 by a local architecture firm following an architectural competition, the competition brief "called for a design that not only organised the inner functioning of its different entities, but also provided an architectural achievement that would symbolise the modernity of Lebanon" (Aramouny, 2017, p. 67). This building and the electricity system was "a key element in a wider strategy for state- and nation-building" (Hasbani, 2011, p. 6).

Today, the EDL building, stands as a hollow ruin following the colossal explosion of a warehouse containing large amounts of ammonium nitrate in the main port in Beirut in August 2020. This was the third largest man-made explosion in an urban area in history (Al-Hajj et al., 2021; Moafi et al., 2020). This shell of a building is the material symbol of the end of modernity and the dystopic reality

Abbreviations: CA, Citizens' Assembly; EDL, *Électricité du Liban*.

* Corresponding author.

E-mail addresses: a.shehabi@ucl.ac.uk (A. Shehabi), muznamasri@gmail.com (M. Al-Masri).

¹ ORCID: 0000-0002-8007-5904

² ORCID: 0000-0002-8007-5904

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of a collapsing energy infrastructure. Amidst this ruin, and the nightmares that have not ceased, we ask in this paper, what spaces can we create for dreams, imagination and potentiality to flourish and to make other worlds possible? Only by imagining an alternative just energy future can we begin to change material and social practices against a seemingly unchangeable reality. We present a method here of how we, as academics and activists, can reignite futurity and reconstitute collective imaginaries beyond the present dystopic and crisis ridden condition. [Fig. 1](#)

1.1. Conception and positionality: CA as object of study?

Motivated by the protests in 2019, the concept of a citizens' assembly emerged from the authors' experiences and observations of the emerging spaces and discussions taking place across Beirut at various scales, on a multiplicity of themes, including energy futures. On the one hand, protestors mobilising outside EDL were screaming at the camera "we need to organise citizen assemblies to decide the future of this country" and on the other hand, think tanks and research centres were organising expert-led and invitation-only discussions in UN headquarters with representatives of multilateral aid organisations, international and local banks, state representatives and other academics. The disconnect between the 'masses' and institutions of governance seemed insurmountable.

That particular moment of uprising folded into economic and political collapse, which, with the ramifications of the explosion in 2020, ushered in a collective sense of despair and political defeat ([Al-Masri and Obeid, 2021](#)). The moment necessitated something much more radical in the way we think collectively about energy politics within and beyond the desire to resist extractivism of natural resources and corruption. Starting with the assertion that "technological innovation should be developed in collaboration with the communities that it seeks to serve, and it should orient itself to these diverse economic, political, and ecological worlds" ([Bell, Daggett, & Labuski, 2020](#), p. 8), we decided to experiment with the citizens' assembly (CA) method. Citizens' assemblies around climate change are becoming more prolific in Global North settings,³ arguably ([The Economist, 2020](#)) as a response to universal feelings of distrust in formal politics and state governance. A citizens' assembly is one method under the idea of a "mini-public" to describe a category of democratic theories and deliberative designs that facilitate a representative microcosm of the public through random sampling of citizens allowing them to debate and deliberate based on curated information and expertise ([Smith & Setälä, 2018](#)).

We (a group of academics, feminist activists, and independent energy consultants) ran a pilot CA in Lebanon, centred around the concept of energy justice with the aim of creating a space of solidarity and the possibility of radical re-imagining of energy futures.⁴ In the room would be community members sitting alongside energy experts. Three-context specific elements make this experiment unique. Firstly, it created a civic space beyond street protests to think with activists and citizens about energy futures that achieves social justice. Second, it performatively staked a role for citizens in any reconstruction and energy infrastructure development plans. Thirdly, it sought to break the technocratic walls and boundaries that energy decision-makers have built to gatekeep and limit who decides energy futures. Above all, it allowed the opportunity to build people-centred visions of what is feasible, possible and desirable, particularly when future imaginaries are constrained by state retrenchment and bleak political realities.

1.2. Social justice in the energy transition

Social justice, the central concept around which the CA was organized, in the energy transition is an under-researched field. The Arab world's role in the global energy landscape is changing; to the west of Lebanon, Morocco and even Egypt are accelerating the adoption of renewable energy, and Morocco is now exporting solar energy. To its east, Gulf states remain the largest suppliers of hydrocarbons and are the drivers of regional capitalism ([Hanieh, 2018](#)). In Lebanon, where energy shortages have been ongoing for forty years, the government is still firmly staking its own future on hydrocarbon production as exemplified by an assertion made by the energy minister, Cesar Khalil, that Lebanon is "entering the club of oil countries" ([Marcel & Obeid, 2018](#)). In February 2020, the government commenced drilling for gas with the distant possibility of exploiting estimated offshore gas reserves of 25 trillion cubic feet ([Marcel & Obeid, 2018](#)). Renewable energy transition is curtailed by the state's articulated imaginary of a fossil fuel future of energy abundance and economic riches, whilst stalling the reforms needed to upgrade the energy infrastructure today. Meanwhile, international stakeholders, including foreign governments, play a major role in providing capital and setting agendas for energy projects. Though many of these purport to carry out public consultation on proposed projects, in reality they can face significant public opposition in the form protest and civic resistance, such as the Bisri dam project proposed by the World Bank.⁵

³ For a good theoretical ground and comparative analysis of citizens' assemblies see ([Smith & Setälä, 2018; Tan, 2021](#))

⁴ Here we must acknowledge the collective team effort involved in this experiment. The conceptualization of the CA and setting the agenda was a year long collective process, with energy experts Marc Ayoub and Jessica Obeid, and Relief Center staff Mariam Daher and Mayssa Jallad, playing a key role. Much of the coordination and critical logistical work was also diligently carried out by Mariam Daher and Mayssa Jallad. Citizen scientists; Rania Bou Said, Aya Hamze, Assia Al Harrache, Abdul Razzak Doughan and Ralph Obeid were the key link to the Hamra community. Students who ran social media; Fatima Makke, Eyma Basha allowed the public to engage online. The facilitation team were crucial to ensuring fair deliberation; Hoda Barakat, Rana Hassan, Nadine Moawad and Samar Maqusi. Angela Saade, observed and offered formative evaluation and important feedback between sessions to improve the next sessions.

⁵ The starkest example being the World Bank funding of the Bisri dam which faced such stiff resistance from communities that it was cancelled in 2020 ([Shalal, 2020](#)), the politically motivated Sela'ata power plant, and the French reform proposals for electricity ([Azhari, 2020](#)).



Fig. 1. Lebanon's Electricity Company (EDL) headquarters in the aftermath of an explosion at the port area in Beirut, Lebanon, August 16. REUTERS/Hannah McKay.

1.3. Contribution and structure

This paper's main contribution is to demonstrate the role that public engagement can have in articulating energy futures broadly and developing Lebanon's energy discourses specifically in ways that can achieve social justice through energy justice.

The following section provides an account of the context in Lebanon and the theoretical underpinnings of the concepts of energy justice, energy democracy and mini-publics as genealogical thinking around why we embarked on organising a citizens' assembly on energy justice. The paper contributes to a growing field of research on energy and politics in the Middle East (Hoffmann, 2018; Mitchell, 2011) and Lebanon specifically (Abi Ghanem, 2018; Abu-Rish, 2015; Nucho, 2017; Verdeil, 2019, 2018, 2016). The focus of this literature has been on the history, institutional developments and politics, with little on the popular participation in the shaping of energy systems and futures. The paper also contributes to the literature on mini-publics and deliberative democracy (Grönlund, Bächtiger, & Setälä, 2015; Smith & Setälä, 2018), which has little empirical analysis of applications in the Global South, and benefits from literature on the imaginaries in STS to frame the understanding of the complex context beyond technical and policy analysis (Jasanoff, 2015). The value of the application of a mini-public method to the energy transitions goes beyond local importance; it will help researchers understand how to break expert hegemony in the energy sector, where the role of community-specific priorities, culture and behaviours in both energy supply and demand are not sufficiently understood. It will also allow them to understand how to build spaces of communal solidarity in times of political and infrastructural crisis, and from here; how to imagine a different material future centred on priorities of justice in the design of infrastructures.

The third section describes the methodology of organising and the process of designing a 'citizen' assembly' (CA) to discuss energy justice. The fourth section deciphers the main outcomes of the CA and presents the four imaginaries that begin to emerge from the experiment, namely; (i) a state-led fossil fuel-dependent imaginary, (ii) a techno-economic-environmental imaginary dependent on renewable energy, (iii) a decentralized and privatized regional imaginary of private sector led solutions and/or sub-regional grids (iv) a dystopic – but realistic - citizen imaginary that sought circular/inter-connected solutions that are autonomous from the central government. These imaginaries may compete or overlap but they help us understand the challenges to achieving climate and energy justice.

2. Context & theoretical underpinnings

2.1. Power in energy planning: the state and the rule of experts

Lebanon currently relies on imported oil and coal for 95% of overall energy production (IEA, International Energy Agency, 2019). The only sources of energy produced domestically include solar water heaters (SWHs), hydro power plants and a minor solar PV contribution. The state, through EDL, holds the monopoly over power provision in Lebanon. Although almost all households are connected to the network, the supply is insufficient to cover demand. In 2018, EDL met only 63% of the country's energy demands, leaving 37% (totalling around 8.1 terawatt-hours, TWh) to be covered by privately owned diesel generators (Ahmad, 2020). Whilst much of this discrepancy is due to lack of generation capacity, years of under-investment, has affected the efficiency and reliability of the electricity grid. For example, 15% of power is lost due to technical inefficiencies (Hasbani, 2011, p. 3). Severe corruption as well as

spatial and class disparities lead to strong variation in the electricity available, and the prices paid by different communities.⁶ At the end of 2021, EDL's provision was between 3 and 6 hours a day only (Szakola, 2022). Household residents who can afford to do so have to rely on their own methods of electricity generation through expensive private diesel generators, which are extremely damaging for both the health of population and the environment. The use of diesel generators for only 3 hours per day accounted for 38% of the daily carcinogen exposure in the Hamra area of Beirut (Shihadeh et al., 2018, p. 4). Beirut now has one of the worst air quality levels in the region. Overall, some 12% of Lebanon's CO₂ emissions originate from private generators (Ahmed, 2020).

The power cuts last for much longer outside Beirut, whilst informal settlements and marginalized places, such as a refugee camps, have a plethora of other problems; provision of electricity is enmeshed with struggles over political power and private profiteering by local generator owners (Abou Zaki, 2016; Allan, 2014). Refugee camps, where many of the one million refugees reside, are not officially connected to the grid. A dangerous web of DIY wiring provides an "illegal" supply of electricity to the grid, claiming the lives of many residents referred to as the "electricity martyrs" (Abi Ghanem, 2020).

Feminist perspectives on energy research bring further nuance to our understanding of decision making around energy, inviting understanding of how power works more broadly, including, for example, pointing out "the intimate relationship between fossil fuels and white patriarchal order" (Bell et al., 2020) or what Daggett (2018) calls "petro-masculinity". With fossil fuel revenues comes incredible centralised power and a mode of hyper-capitalism that makes Gulf states the envy of many of the governments of oil-poor republics in the region. Baumann (2016) is a deep study into the way Gulf oil capital shaped forms of neoliberal consumption and development in Lebanon's post-war reconstruction. This approach is evident in the promises by the Prime Minister at the time, Saad Hariri, to assuage the protesters in 2019, of solving the energy shortage by 2021 (Sherbini, 2019) through speeding-up the process of building power plants and appointing an independent regulatory authority for the sector (Wehbe, 2017). Hariri resigned and subsequent ministers have made little progress.⁷

It is not surprising or unique to Lebanon that in times of crisis, governments strategies are not in line with other long-term future energy plans and commitments, such as the Paris Agreements on climate change that Lebanese state committed to in 2015.⁸ Lebanon has pledged to produce 30% of its electricity from renewable energy sources by 2030 (IRENA, 2020). Yet in 2020, it failed to meet its Paris Agreement target of 12%, having only reached 5% renewables thus far. This is not to equate the energy transition with justice, which the CA seeks to explore, but to understand the competing claims and promises made by the state that may be contradictory.

As energy supply rapidly reduced, the country felt on the precipice of "total darkness" – a feeling captured by many media reports (Ackerman and Al-Lawati, 2021; Sommerville and Melanie, 2021). Political officials have tried to weaponise this crisis situation; "If a government is not formed, there will be no country and no electricity" stated Nabih Birri, the head of the parliament in a tone that almost uses the electricity crisis as a threat. The electricity problem becomes a choice: either the political status quo, or no electricity. The possibility of an alternative is removed, and an energy future that is just, durable and sustainable is postponed.

This continuation of the status quo of fossil fuel dependency serves to entrench the monopoly of EDL over all public service energy provision. The state has been unwilling to explore decentralisation of energy provision or to constitutionally allow municipalities, at the sub-national level, to provide electricity, and has also failed to enact proposed laws that allow net-metering. Decentralisation is not the same thing as privatising the system or parts of it, but in Lebanon they can get conflated, as the only example of a sub-national energy provider, in Zahle, has been a private company (IRENA, 2020). This demonstrates how the politics of energy is central to the future of the energy transition, foreclosing the possibility of alternative modes of governance and production in this case.

Whilst the state as an actor is critical to ensuring energy as a basic need and a public good, Mason (2019) looks specifically at decision-making, energy planning and vision-making in energy systems. He points to an energy expert 'industry' and how the production and distribution of knowledge takes place at exclusive, often luxurious, executive roundtable meetings; and, how consultant knowledge is used as a kind of virtue ethics, whereby adherence to neoclassical economic principles is taken to be a character trait of excellence and trust. As a result:

⁶ To give some technical context and background, the state through EDL holds the monopoly over power provision in Lebanon. Although close to all households are connected to the network, the supply is insufficient to cover demand. In 2018, Électricité du Liban (EDL) met only 63% of the country's energy demands leaving 37% (totalling around 8.1 terawatt-hours (TWh) to be covered by privately owned diesel generators (Ahmad, 2020). While much of this discrepancy is due to lack of generation capacity, 15% of power is lost due to technical inefficiencies (Hasbani, 2011, p. 3).

⁷ Recent scholarship has explored the historical origins of these issues. Hasbani (2011) believes the civil war (1975–1990) was a major disruption during which sectarian militia captured supply and weaponised it against each other, Abu-Rish (2015) traces the origin of Lebanon's frequent power outages back to the early 1950s, when they were a formal response to a reduction in prices forced through popular protests. The post-war reconstruction brought in new investments, especially in generation, though with huge financial ramifications due to corruption. Post war governments have repeatedly failed in delivering on promises of increasing generation and reforming the sector. Further damage to the grid was sustained in the 2006 Israeli war on Lebanon. Lebanese citizens have tolerated chronic energy supply shortages and daily power cuts for decades, and 30 years following the civil war. While tariff subsidy reform has been avoided to prevent popular protest (Verdeil, 2018).

⁸ Since 1992, electricity sector spending, including subsidies, has accounted for approximately 40% of Lebanon's government debt (Ayat, Haytayan, Obeid, & Ayoub, 2021). With the local currency devaluation, and the black market exchange rate of the Lebanese Lira to the dollar over 85% higher than what it was in October 2019, the Central Bank (Banque du Liban) is struggling to provide the required foreign currency for fuel imports (heavy fuel oil and diesel oil). The problems of the sector are further exacerbated absence of an overall sector vision developed without proper public consultations, especially when it comes to the energy mix and evidence-based planning with a focus on least-cost solutions.

[...] this knowledge becomes attributed with a prestige value as its independence from local entanglements is positioned as an inherent attribute. In this context, executive roundtables offer the possibility of presenting knowledge as neutral so as to enrol competing parties in a shared setting. Yet, by linking the reliability of that knowledge to the aesthetics of luxury, on the one hand, and the personality-based virtue of the consultant, on the other, relationships of quantity and quality come to depend not only on the assembly of data, but also on its abstraction in the event itself. (Mason, 2019, p. 137)

Taken together, these features explain a shift in energy planning from calculations based on political judgement to calculations made by economic decision-making. He argues that this has changed how energy planning is undertaken in the Global North, and asks, “has the rise of the consultant expert, who can speak in the name of the market, short-circuited a democratic sense of deliberation and oversight that characterized previous regimes of energy regulation?” (Mason, 2019, p. 128). This critique however is not confined to the Global North and we extend it to Lebanon where moves towards ‘technocratic’ governance is sought (“*hukoomat al-teknokraat*”) as an alternative to coloniality-entrenched sectarian consociational politics. With the entanglements of the international development sector in shaping the economics and politics of national initiatives, a similar hegemony or what Mitchell (2002) calls “rule of experts” who exploit technologies and technical models to advance particular market futures. This commodification of the future has been built on the alienation of citizens who need energy the most, and intentionally exclude, or barely reference people at all (Miller, O’Leary, Graffy, Stechel, & Dirks, 2015). The ‘expert industry’ in Lebanon is also quite large (see for example (Kosmatopoulos, 2011), and the authors have engaged with many of them in previous closed roundtables they have organised. The question to ask of power, is how can a model of energy planning be formed so that power is not hegemonized by elite interests (state and experts)? The CA sought to address this by design of its structure and format, and the performativity of deliberation.

2.2. Energy justice and the citizen

“Electricity where are you? There’s a generator between me and you” – 2019/2020 protest slogan.

Severe energy shortages and increasing power cuts, or what is referred to as “*atmeħ*” (darkness), whilst being one of many issues in the country, has been the cause of repeated protests in the past as outlined above. Social scientists’ recent contributions provided a detailed account of the devastating impact of living through daily electricity cuts on the everyday lives of residents of Lebanon (Abi Ghanem, 2018), exposed the precarity of its infrastructure in refugee camps (Abi Ghanem, 2020), and situated electricity challenges within the sectarian local governance structures of urban areas (Nucho, 2017).

In the shadow of a looming economic crisis, mass protests erupted on October 17, 2019, demanding an end to socioeconomic deprivation, inequality and poor public services. Tens of thousands of people took to the street and occupied central squares. Energy equity emerged as one of the key demands, particularly 24/24 (24-hour electricity supply). Framing their demands in terms of rights to public services and the failure and corruption of state officials, accountability emerged as part of a struggle against the oligarchic sectarian system that had led to financial and economic collapse. Energy related protests are not new. Clashes occurred during protests against electricity blackouts in 2007–2008, resulting in nine casualties. Riots also broke out in August 2010, and 2011 for similar reasons and political and militia groups intervened by bringing new generators during these protests to calm down anger and re-affirm their patronage (Verdeil, 2016).

The lack of 24-hour electricity provision has become symbolic at the popular level of dysfunctional state institutions and its provision to a desired – unattainable – progress (Abi Ghanem, 2018). At the same time, many transition-focused initiatives have been driven by grassroots-based CSOs, and even by local state authorities (municipalities). The conception of justice in the energy sector has for a long time been an important issue but is now a key political demand. More research is needed on the historical articulation and forms that energy justice has taken (Abu-Rish, 2015).

Two concepts are central to the discussion of social mobilization around energy. The first is “energy justice”, which found its place in the energy policy literature around a decade ago stressing at the time the idea of just distribution of energy resources (Pellegrini-Masini, Pirni, & Maran, 2020). The second key concept is “energy democracy”, that has emerged in the communications of non-academic activists and practitioners (Allen, Lyons, & Stephens, 2019; Feldpausch-Parker, Endres, & Peterson, 2019).

The concept of “energy justice” is a powerful critical tool which can be used to understand the intersecting injustices related to class, nationality, race, gender or spatial inequalities as well as governance, distributive and retributive elements in the way energy is produced, governed, and distributed (Sovacool, Burke, Baker, Kotikalapudi, & Wlokas, 2017). To re-think how planning should be done, a justice-based approach is a useful way to re-politicise energy planning. Two current popular elaborations on the concept of energy justice, by McCauley, Heffron, Stephan, and Jenkins (2013) and Sovacool et al. (2017). McCauley et al. (2013), elaborate three tenets of energy justice, to be considered within the context of energy production and consumption, namely (i) distributional, of energy’s benefits and ills (ii) Procedural, pertaining to equal participation in energy related decisions; and (iii) Recognition, of the various perspectives and energy needs of individuals and groups. Energy justice principles set out by Sovacool et al. (2017), which formed the basis of the citizens’ assembly that we planned, include principles of availability, affordability, due process, transparency and accountability, sustainability, intergenerational equity, intragenerational equity, responsibility, resistance and intersectionality.

2.3. Energy democracy, imaginaries and the promise of mini-publics

Energy democracy is much wider than just the issue of representation, decision-making and citizen inclusion. The other dimensions of energy democracy, namely the distributive, procedural and discursive dimensions, intersect with concepts of energy justice in as much as democracy and justice are related concepts. Becker and Naumann, (2017 p.2) list “decentralized energy generation, public

and cooperative ownership and energy sovereignty as the dimensions of energy democracy". A broad elaboration of the concept of energy democracy describes it as "a vision for restructuring the political, economic, and social makeup of the energy system by transitioning to renewables while establishing democratic energy decision-making processes, equitable access to energy, energy-ownership for marginalized groups, and distributed, renewable energy resources" (Allen et al., 2019). Whilst at the global level the energy transition consists of restructuring the global energy system in order to massively scale up renewable and low-carbon energy, the challenges in the Middle East region are different and the democratic component is largely absent. In Lebanon, a distrust of the government's ability to resolve energy problems Hasbani (2011) urges a search for alternatives, be it through looking toward the private sector - as in the example of a privatised utility company in the region of Zahle (Ahmad, McCulloch, Al-Masri, & Ayoub, 2022)- or the reliance on local hybrid solutions like diesel generators that the Lebanese have relied on for decades (Abi Ghanem, 2021). Szulecki and Overland, (2020 p. 6) describe "Energy democracy" as "having the potential to become an alternative to 'top-down, centralized and neo-liberal' visions, recognizing as it does the immanent political nature of energy transitions and their spatial and scalar multiplicity."

Bell et al. (2020) assert that technological and technocratic solutions are not sufficient but require a new fuel politics, and propose a collective approach to knowledge that examines 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. Szulecki and Overland, (2020 p. 5) understand energy democracy as a process, wherein "the social movement becomes a prime mover, either epitomizing the concept or making it happen (2020, p. 5)."

With the alienation of citizens in formal energy planning, what are alternative modes of governance, planning and future-making? If as Verdeil (2016) asserts, energy protests in Lebanon have not even been able to mobilize into an organized social movement, what prospects do they have of becoming "prime movers"? This is where the utility of the concept of sociotechnical imaginaries become evident. Here, we define those sociotechnical imaginaries, following Jasanoff (2015), as "collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology." (2015, p. 4) Jasanoff, (2015 p. 17) argues that imagination is "a crucial reservoir of power and action, lodges in the hearts and minds of human agents and institutions." She speaks of the struggle between competing imaginaries in periods of conflict and how emergence can enable transformation. Through the CA, we provided the space for the presentation and negotiation of several competing sociotechnical imaginaries. The dominant state-expert, private sector, multilateral organisations construct top down energy future imaginaries that are embedded in strong institutions. The citizens' imaginary that emerged is sustained by decades of living through a community led hybrid energy provision system, which did not have explicit articulation. The convening of a CA, or a mini-public, allowed space for the observation of the process in which an existing implicit imagination is given an explicit articulation and the resistance that its emergence is faced with.

There has been a growth in the literature on mini-publics as a subtheme of deliberative democracy in the political science discipline. This reflects an observable spread of mini-publics in some of the "representative democracies" in the Global North (Grönlund, Bächtiger, & Setälä, 2015). Mini-publics come in various forms that are being rapidly standardized, such as: citizen juries, consensus conferences, deliberative polls and citizen assemblies. They can focus on any contentious topic from abortion rights, constitutional change to climate change mitigation. Some scientists are even proposing a global citizen assembly on genome editing, arguing that citizens are essential to the adoption of new technologies (Dryzek et al., 2020). This is now turning into, what the OECD describe as the "deliberative wave" (OECD, 2020) describing methods for collective decision making on "issues that are values-based, require trade-offs, and demand long-term solutions" (OECD, 2020). With fears over the climate emergency, recent efforts have proposed methods such as citizen assemblies and citizen juries as an innovative and more radical way to highlight "active forms of citizen participation and citizen empowerment in the production of science and policy" (Galende-Sánchez & Sorman, 2021).

Recent studies such as that of Galende-Sánchez and Sorman (2021) have archived and conducted systematic reviews of recent participatory and climate and energy initiatives. Grönlund et al. (2015) review the conceptual, methodological and empirical developments in the literature. This study and the literature writ-large has been heavily Euro-centric and largely focused on the Global North, with a review calling for more "intellectual leadership in foregrounding the diverse applications of mini-publics beyond the northern hemisphere" (Curato, 2016, p. 860). One of the biggest examples of a national deliberative forum, for example, was Brazil's National Public Policy Conferences, where hundreds of thousands of citizens participated in proposing new policies and demonstrating how deliberative and representative democracy can be merged (Pogrebinschi & Samuels, 2014). A brief glance at Participedia.net also establishes the breadth of democratic innovations taking root in Africa, Asia and Latin America.

Smith and Setälä (2018) give a good typology of mini-publics. The key feature of mini-publics is that citizens (and non-citizens) are randomly recruited from the (national, or sub-national level of the) population. With the help of trained facilitators, participants deliberate about specific political issues. Experts and stakeholders are often invited to share their views and feed the discussions. At the end of the process, participants make a series of recommendations or vote on some statements that are presented to the decision-makers and the broad public (Jacquet, 2019).

The growing trend in climate change conventions reflects a growing desire to integrate 'science' and 'society' which is just as important for the kind of scientific research conducted as for societies, communities and individuals. We make this point as a rejoinder to the government official's claims (presented later) that ordinary people cannot grasp the complexity and technicalities of an issue like energy planning. Dryzek et al. (2020) recently made the case that citizens' assemblies provide "a productive integration of scientific knowledge, lay knowledge, and public values, meaning that specialists can learn about broader publics, and publics can learn about expert framings" (2020a, p. 1436). The recent Climate Change Conventions in France, for example (see Phalnikar, 2021), and the Climate Assembly of the UK (Climate Assembly - UK) discussed highly technical matters such as renewable energy technologies and energy conservation measures, amongst other things, to recommend policy changes they believed would lead to net zero.

Very little consideration has been given to applying mini-publics to postcolonial states in the Global South where states suffer severe democratic deficits and under-development. The particular case of Lebanon serves to highlight the methodological innovation required to address a postcolonial context; specifically a consociational system that continues to perpetuate sectarianism and political fragmentation (Leenders, 2012; Makdisi & El Khalil, 2016; Traboulsi, 2012). An independent, self-organised mini-public therefore is one that needs its own specific evaluation metrics and a “theory of change” that differs to those established in Global North states where several initiatives to build a set of ‘standards’ and ‘principles’ for CAs are ongoing. As CAs become more standardized, it is important to note the radical heritage of deliberative democracy as an emancipatory method in which “*the legitimacy of authority [...] must be based on argumentative justification through public reasoning to those subject to it*” (Böker quoted in Smith & Setälä, 2018). In this spirit, as the uprising in Lebanon waned, the CA becomes a space for re-asserting the citizen and re-making futures differently.

The main challenges to public engagement on the electricity problem was set out by Hasbani:

Informed public debate about the challenges and issues related to electricity sector reform is largely absent from the Lebanese public sphere. This is a result of limited access to details about proposed policy measures and lack of understanding of those among citizens. Citizens effectively lack direct, first-hand information about the objectives and details of the electricity reform. The relevant legislation is not available in electronic form, the website of the Ministry of Energy and Water is not updated, and the information provided through the media does not encompass all the details of the proposed initiatives. There are no institutionalized channels for public consultation and it does not take place on a regular basis. (2011, p. 2)

Poor public energy literacy and technical boundaries are often cited by experts and officials who are sceptical of public involvement, claiming that “the public does not necessarily understand the proposed actions of corporatization, privatization, unbundling, and improvements in bill collection” (Hasbani, 2011, p. 30). But what the public do understand is social justice. As Jenkins (2019) claims, energy democracy is “one of the means through which energy justice can be achieved” and is a necessary but insufficient condition for a just transition. Droubi, Heffron, and McCauley (2022) provide a very recent theoretical and practical critique of the energy democracy literature, they present a model of justice and its elements (distributive, procedural and restorative justice). One of the points they make is that even if participatory methods increase education, “participants may reject the information to which they are exposed if that information contradicts their beliefs, cosmologies and life experiences” or simply decide against it because they are pursuing more urgent interests. In their framework, restorative justice involves consideration of actual and potential harm to vulnerable groups in their own community and the rest of the world. Their premise is that it is “the energy justice and not the energy democracy – literature that has the proper framework.” They use the idea of the “conundrum of democratic governance” to suggest that “top-down decision-making and action in the energy sector may be needed to achieve the bold low-carbon energy ambitions,” mainly because of the time-sensitive component for change to happen (Droubi et al., 2022).

Many of these theoretical threads were innovatively weaved through the experimental methodological design of the citizens’ assembly in Lebanon in a difficult economic and political context as well as through demonstrating how to engage the public on questions of energy justice. Though we conducted the CA before the publication of Droubi et al. (2022), much of our thinking, approach, design and outcomes confirm the tensions around energy democracy and energy justice in ways that invite social scientists to probe further, particularly in a context where the energy democracy discussion is rooted in broader political discussions in a moment of popular contention.

3. Methodology

3.1. CA format & design choices

As the trend towards deliberation methods evolves, academics, activists and NGOs, and institutions like the OECD are moving towards the standardisation of citizens’ assemblies across Europe (see for example, the work of Involve in the UK (Gerwin, Waluk-Jaguszewska, & Fundacja Otwarty Plan, 2018 and OECD, 2020). In general, a citizens’ assembly (CA) should have a clear purpose, be inclusive, representative, and transparent, among other subjective principles. It should incorporate the elements of learning, deliberating and deciding (Grönlund et al., 2015; Smith & Setälä, 2018; Tan, 2021).

Designs of mini-publics do vary in scale and form; in methods of selecting participants, duration, deliberation methods, the desired output, and government, municipal, corporate, activist involvement (Smith & Setälä, 2018). Where the CA is located as a political process can also vary; some CAs in the Global North are state-backed and support municipal level decision-making or national legislative change (e.g., Irish CAs on constitutional amendments or France’s Citizens Climate Convention). Some CAs are part of social movements such as Extinction Rebellion.

The citizens’ assembly on electricity and energy justice in Lebanon commenced across five sessions in three days in October 2020, and focused on an area of Beirut called Hamra: a diverse, cosmopolitan and relatively wealthy area of Beirut. It is also where the American University of Beirut, one of the institutional partners of the CA, is based.

The planning of the Lebanon CA began a year before its commencement. It involved a communication campaign to educate and raise awareness by explaining what a CA is, An animation video was made in Arabic to describe the purpose and the structure of a CA, and a glossary that translated and adapted key technical terms were given to members ahead of the CA in a pack.

Our initial plan involved recruiting 70 members but, due to the covid-19 restrictions on social distancing, 33 members of the public were recruited at random, though ensuring representation of various community groups. In addition, 13 energy experts, facilitators and coordinators were engaged in the planning process, discussing and planning, for over a year, the content and format of the CA and ways in which it engages the challenges in the energy sector and the political climate in the country. The community around the CA

also involved stakeholders from the area, who were invited to advise on themes of the CA and support participants recruitment, energy experts who presented on the day, as well as observers and evaluators. As the CA convened, it had around it a diverse community of over 60 experts and citizens.

Members worked and deliberated in four subgroups of 8–9 members, each led by an expert facilitator. In terms of content, members were provided with a historical overview of electricity in Lebanon and, following expert input, were invited to discuss and vote on principles of energy justice, Lebanon's energy mix, improving energy efficiency, and recommendations for the way forward.

Since this was a pilot, the role of evaluation was crucial to developing a larger scale model in the future. We followed an evaluation framework based on a set of principles formulated by an organisation called Involve ([Standards for citizens' assemblies, 2020](#)) and a review of these principles against principles used in other CAs ([Tan, 2021](#)). The overall evaluation of the assembly relied on 1. Assembly members evaluation survey and feedback throughout 2. Debrief meetings following every session and after the completion of the CA with the organizing team and the facilitation team 3. Observation notes during the CA taken by an independent evaluation. The educational value of CAs organized by civil society was mentioned a lot, but the feeling of solidarity, collaboration and community also emerged strongly in the evaluation. The topics they appreciated the most were, "The history of electricity and EDL in Lebanon", How to improve energy efficiency and, "What we can do as individuals." Ninety three percent of the assembly members said they would participate again in a CA if they were invited.⁹

In the design of the pilot, we made a few design choices in order to, firstly, conceptually nest energy justice thinking in the deliberations and, secondly, adapt the decision-making processes to match the contextual needs of the country and the participants.

Firstly, the conceptual framing of energy justice was presented as a set of principles and priorities that members deliberated and used to guide subsequent planning questions. Though principles may stay the same, we recognised the people's priorities may shift during the CA. We were interested in seeing if the prioritisation of sustainability changed, for example. To introduce the energy justice principles we translated [Sovacool et al., \(2017\)](#) energy justice dimensions into Arabic, used cartoons, stories and examples to explain each dimension, and then asked the members to deliberate the dimensions and the trade-offs between them.¹⁰ Members were asked not to jump in individually with questions, but to discuss with their group and to prioritize questions for each expert.

Secondly, the importance of locating the CA politically and ideologically, and to understand the tensions at the national and local scale. It was important to decide collectively how the CA would engage with "state actors" because of questions of legitimacy, sovereignty, security risks and trust. This also meant that members of political parties, but not officials, were inadvertently included.

Thirdly, the professional facilitators we used were attuned to social dynamics and the need for civic engagement to build solidarity to encourage the deliberation and decision-making process, and that everyone got a chance to speak and was free to bring their own insights, whatever their background. Women and young refugee men were particularly encouraged to speak.

Fourthly, the hybrid model of online learning and in-person discussion, which at the time was a safety response to the pandemic, ended up enriching the overall experience. All experts were filmed and their presentations shared via WhatsApp groups that were managed by the facilitators of each group. The videos could be watched during the week, and questions were gathered online. Whilst this was to minimize the physical time spent together, it served to improve expert communication through practice and rehearsal, and allowed assembly members to pause and re-listen to difficult concepts and note key points ahead of the deliberation sessions.

Finally, using the power of performativity and one-person-one-vote rights, members held a sense of worth and empowerment. The space to exercise voice and power served to enshrine a sense of purpose and importance to the gathering that would usually not happen in normal workshops. The sense of collective power fostered a feeling of solidarity and hope.

3.2. Analysis, design and privileging the voice of the citizens¹¹

The theoretical framing presented in section two underpinned some of our design and analysis choices made. As mentioned earlier, the top-down and rule of experts have neglected "the health, environmental, security, and justice. dimensions of energy systems change" ([Miller et al., 2015](#), p. 66). The citizens' assembly pilot sought to break this expert hegemony but still make use of diverse and, at times, conflicting, expert information. This method therefore performs one aspect of "energy democracy" and to inform those pushing for renewable energy transitions, particularly international donors, where social and cultural awareness are what is needed to drive first wave transitions. The CA method becomes a way of inscribing a more equitable engagement with "experts" whilst also allowing academics to bring in theoretical and empirical social sciences to the public debate. In practice, before asking the public what is "the future" we must ask "where is the future", i.e. choosing time horizons in the midst of crisis, when the struggle of everyday life reduces temporal horizons of imagination. Why are the years 2030 or 2050 commonly chosen as *the* 'future'? In this process we had to

⁹ For full evaluation results, see the full report ([Shehabi et al., 2021](#), p. 45)

¹⁰ All of the videos and recordings of the CA are available on the RELIEF website: ([2020, مجلس مدني حول الكهرباء](#))

¹¹ In terms of our own journey, we the authors, began our research efforts in relation to energy as consultants-for-hire where we were involved in implementing assessment and running planning and futures/scenario gaming workshops for "clients" and organising such roundtables in places like Chatham House (in London) and UN ESCWA (in Beirut) in 2019. Like many others, we privileged the role of "experts", in the assumption that technical expertise is de-political, neutral, and intentionally untethered from messy contexts. With the rise in political contention in Lebanon and coming from a social science background, we soon became aware of the power dynamics and authorial voice with which experts speak and a serious lack of critique and an intentional attempt to disentangle policy from local politics and inability of experts alone to propose solutions that reflect peoples lived reality and their hopes for the future. In this CA, and earlier, and even where the authors made sure that civil society figures were invited the power dynamics were in no way equal or democratic.

convince stakeholders that vision-making during this extremely difficult time was not for the sake of fanciful imaginations of an impossible future, but rather that solutions need to be grounded in a vision in order to reach *an* energy future that is better than the present.

Another, in relation to the second design consideration, is on the role of state actors, which was a key political dilemma at the design stage. Across Europe, CAs are being supported, funded or accommodated as part of national or sub-national governments. The Lebanon CA was rolled out independently at a local level. Opinions expressed by interlocutors during the consultation stages of the planning process oscillated between, on the one hand, a radical rejection of any representation in the CA of state officials who are perceived to be part of a corrupt regime and, on the other hand, the need and desire for re-shaping centralised state energy provision necessary to make any CA recommendations possible. In the spirit of testing the state's position on the CA itself, invitations were extended to EDL and Ministry of Energy and Water (MoEW). We received flat rejections re-asserting the very same problem we were trying to address; namely state-expert hegemony:

I don't believe in the need of "building alternative democratic mechanisms for deliberation" when it comes to technical specialized issues when such democracy is between experts and common people that have no clue about the subject. Democracy & deliberation among the experts is the common practice that is safe and sound. Anything else can lead only to chaos. (State official responding to CA invitation by email to authors)

Indeed, the attempt at opening up spaces for deliberation beyond donors and experts was framed by another state actor as harmful. This official response represents an attempt at a form of "governmental depoliticization", delegating the topic of the energy transition to arms-length 'experts' who have no real political power (Bues & Gailing, 2016).

One can argue here that state resistance is not unique, and that even Western cities have been slow in wholeheartedly adopting every single recommendation of a CA (see the example of France Phalnikar, 2021). However, what our methodology proposes is that the role of the state is explicitly considered rather than assumed. As CA as a methodology becomes standardised, rather than following a global trend and applying a cookie cutter approach, the challenge of using the method effectively and authentically requires a context-specific design that takes into account the different vested interests at play by all stakeholders involved.

3.3. Analysis of the process, deliberations and decisions

The analysis in this paper benefited from our involvement - as participant observers - for over a year in the design and planning of the CA's format and agenda, and the involvement and mediation of stakeholders. In that sense we were coordinators of and ethnographers of the CA, taking on a critical anthropological perspective (Hage, 2013) to both understand the systems of power in the governance and planning of energy in Lebanon as well as emerging alternative possibilities for a just energy future. Our theoretical analysis impacted the way the CA was designed (or in other ways, how our research "methodology" was shaped). In addition, the CA produced extensive material and data consisting of observational notes (a note-taker was assigned to each table), audio recordings, video transcripts, videos and group WhatsApp discussions between sessions, Mentimeter voting results, individual feedback and evaluation surveys.

Based on our year long involvement, a critical review of the input from experts, and the documentation from the CA, we undertook thematic analysis of the views presented in the CA to emerge with four main broad imaginaries of energy futures based on the expert presentations as well as the general response to them and extent of interest expressed. This required a non-linear analysis that didn't just look at the questions posed and the voting patterns, but rather interprets inconsistencies that emerged, for example between explicit voting results, the discussion within the groups, and the reflections and small talk over coffee with participants. As we unpack the findings, we unpack these contradictions in the next section.

4. Results and discussion

CA members were asked to make decisions related to three key issues; energy justice priorities; the energy mix of future energy production in 2030, and actions to improve energy efficiency locally. The main outcomes of the pilot CA were based on the voting and deliberation of these questions. The first subsection presents the outcomes of the voting process and attempts to outline the contours of emerging energy future imaginaries that these outcomes give shape to. We then situate them within other competing and overlapping imaginaries presented by energy experts, government officials, as well as by political and environmental experts.

4.1. CA outcomes

Assembly members' first decision focused on the **principles of energy justice** that should frame priorities and visions that would be discussed in the following sessions and would underpin their recommendations. Because this is a new concept, we proposed Sovacool et al.'s (2017) set of principles in order to guide, test and tease their relevance to the local and national context, and add or adapt where members felt it was necessary. In the discussions, members drew on their own experiences, values and views, as well as evidence from the assembly's first panel of speakers that covered the health and environmental impacts of diesel generators, data on quality of service and costs in the local area, and the national situation on energy service provision.

The members voted twice (in the first and final sessions) through a secret ballot on their phone using Mentimeter (an online voting platform) on what principles were a priority for them. The first vote followed a discussion in small groups after viewing the presentation of the principles on the first day of the CA, the second at the end of the assembly to validate them based on any information

they had heard. The four principles, consistently voted by members as having priority are “affordability”, “availability”, “responsibility” and “sustainability”.

Affordability and availability were closely connected, given the context. In the midst of a national financial crisis, and fast depreciation of the local currency, further exacerbated by economic hardship caused by Covid-19 related lockdowns, it was clear that the financial aspects were given priority at that point in time. Each and every house in Lebanon suffers daily electricity cuts; 3–6 hours a day at a minimum in Beirut with some residents of Beirut without electricity for 50% of the day in the summer of 2020 preceding the CA. These power cuts were paralleled with fears that the current economic crises would hinder the ability of state institutions to procure fuel necessary for power generation, causing further cuts. The prices of electricity provided by private generators had also increased in the summer before the CA, giving the issues of affordability further prominence. Just over half of the members had experienced a doubling or tripling of their electricity bills in the past year. These two dimensions of justice affect access to electricity for the poor disproportionately.

The prioritization of the principle of responsibility is a good example of how members manifested their understanding of the energy crisis as requiring the joint effort of a wide variety of actors, asserting that ensuring clean and sustainable energy is the responsibility of the government, but that how we spend our resources is the responsibility of consumers. Sustainability was understood by members as seeking long-term solutions and thinking about future generations, rather than environmental concerns related to intergenerational equity. Yet it was also framed in response to the government’s lack of planning and reliance on provisional solutions.

Surprisingly, principles like accountability and transparency, due process, and resistance, received relatively low votes, despite voiced discontent in the CA of failed state policies broadly, and those in the energy sector in particular, and the political moment of mobilization that preceded the CA. The voting pattern in the remaining session indicates that this might have been partially attributed to lack of faith in change altogether, and a desire to find solutions that are within reach that can be implemented individually or on the scale of their neighbourhood.

On the second question of what should be **Lebanon’s energy mix in 2030**, assembly members demonstrated an unexpected outcome of the CA. Even though the discussions were grounded in what experts viewed to be realistic and plausible futures – in this case, that a 50% renewable energy target was possible in Lebanon - the vote on a future target resulted in a much lower average of 26%. From the deliberations on this question, we believe this position does not reflect a lack of enthusiasm for renewable energy and decarbonization as [Szulecki and Overland \(2020\)](#) demonstrate in some cases of community participation in other countries. It rather reflected a politically realistic outlook; one that hesitates in adopting a technically feasible solution when the political climate and state capacity are not perceived to be capable of advancing such a vision. CA members rather supported a circular approach that can offer integrated solutions to the food, water, waste and energy problems, to energy solutions in the country. They also questioned the role they can play as community members and the role of local groups and institutions in advancing renewables on a micro-grid level in an urban setting, leading to the discussion of the final question, on energy efficiency.

In discussions on **energy efficiency**, participants focused on interventions at the building and neighbourhood level. The proposal they made sought to combine individual practices with engagement with local groups, and institutions and political parties. The latter was seen as particularly important in efforts to reduce the hegemony of the suppliers of private diesel generators. Alternatives to diesel generators combined proposals for solar energy, using waste and biomass to generate energy, while at the same time organizing locally to combine forces in energy production, and including the university (American University of Beirut) as an important actor. Members also suggested proposals to raise awareness of efforts to reduce consumption, and a local monitoring mechanism to ensure the implementation of planned action. Reducing pollution also featured prominently despite action against climate change only being raised by a few. Overall, there was consensus that, given the learning that they had gained through the CA, improving energy literacy through a public awareness campaign is the first step to any grassroots movement. They felt some of the technical knowledge they had gained in the CA could be shared more widely. This also reflects the need to resolve the challenge of the limited reach of a “mini-public” and ways to encourage “mass participation” in such discussions.

In the CA recommendations, what participants were pushing for was a greater, more inclusive role for local governments, that cooperates with local generator owners, diversifies energy sources, and is held accountable by an aware and capable local community. The emerging overall vision that CA members were shaping was a justice driven one (it addresses the needs of all members of society), and was community-led in its conception and circular in the use of resources. They were particularly keen on waste to energy proposals that would also be cross-sectoral (can address waste, water and energy problems together). It was also clear that distrust of the state, created an anti-state sentiment that diminished faith in the official 30% renewable energy target by 2030.

4.2. Four energy imaginaries for Lebanon

In a large hall with over sixty citizens, activists, social scientists and energy experts taking part over three days, multiple imaginaries of energy futures in Lebanon co-existed. As per the definition laid out by [Jasanoff \(2015\)](#), sociotechnical imaginaries are “collectively held, institutionally stabilized, and publicly performed”, but only the first three of the following imaginaries can be said to be “institutionally stabilized”, the fourth, only an emerging one, its articulation enabled by the CA and by the moment of political contestation in the country. In that sense, the CA, as a space shaped by social scientists as much as “technical experts”, allowed for the practice of energy democracy to make visible and explicit the “political”, as not only key in shaping energy challenges, but also in shaping visions for dealing with such challenges.

Different iterations of these imaginaries had some overlap or struggled with two parallel questions on the role of the central state and the share of renewables. Given the historic failures and corruption of the state in managing the sector, there was a hesitation in imagining an energy future dependent on its intervention, while at the same time appreciating the need for the state to plan, regulate

and govern utility scale energy infrastructures. Regarding renewable energy, though many voices supported a greater share of renewables, it was the technical capacity and mechanisms of its implementation - establishing micro-grid and decentralised utility providers for different regions, for example – that were sources of hesitation.

Below are the details of four imaginaries we have observed to be articulated by the various actors participating in the CA. The labelling below is primarily an analytical exercise by the authors and not categories that CA participants and experts would declare them as fitting within. It is an attempt at articulating the contours of various visions, understanding what systems and past experiences give them shape and to enable reflexive evaluation through a socio-political lens of the technical proposals presented. There is also a certain degree of contradictions, oscillations and overlap between the various imaginaries.

The first imaginary is a **fossil fuel dependent future, the petro-masculine imaginary**, which extends the status quo and is the one that features in government plans and popular practices (Wehbe, 2017). This is presented as a “realist” future with quick fixes - such as through expensive heavy fuel barges carrying diesel to meet short-term demand. Whilst EDL and ministry of energy representatives were absent at the CA, the state’s general energy strategy was presented.¹² It relies on further imports of heavy fuel oil (HFO), despite – largely unfulfilled – state promises for an increase in the share of renewables (targets of up to 12% in 2020 and 30% in 2030). Yet, even if these percentages were achievable, they are misleading. When the state’s energy strategy was developed before the economic crisis in 2019, EDL only provided 63% of energy needs in Lebanon; that percentage is much higher two years later and that shortage is covered by diesel run private generators.

This vision also emphasises the promise of producing gas from unexploited gas reserves off the coast of Lebanon. This pins, not just an energy future, but an entire economic future, on Lebanon falling on a future “windfall” of wealth that would enable the state to become the next “Qatar.” Arguably, it also speaks of a manifestation of “petro-masculinity”, that Daggett (2018 p. 29) explains stems from the convergence of fossil fuel systems, white patriarchal rule, and authoritarianism. In Lebanon, it manifests as the entanglement between fossil fuel dependence and deprioritization of environmental and climate concerns on the one hand, and patriarchal authoritarian order, or the desired political future of some of the ruling elite in a collapsing country, on the other. Gulf state models of wealth and development appeal to states in the region who have been economically inferior. They also appeal to ordinary people, who are familiar with the opulence in those countries through labour emigration to the Gulf and in turn the large Gulf investments (in real estate, business and tourism) in Lebanon itself. Whilst there is limited scope for it in this paper, this imaginary merits further exploration, for example, through narrative analysis of media reports and marketing over the years.

That same imaginary, given its authoritarian patriarchal stance, also presumes that the only role for citizen participation is as “consumers” of energy and government policy. The response of the officials invited to the CA also showed a disdain or suspicion of the ability of ordinary citizens to decide on energy matters – choosing to defend the socio-technical boundary that the CA was trying to blur:

You expect ordinary people to participate in the decision making of energy policies based on a few presentations whereas the normal practice is that experts spend months collecting data on the sector, studying market patterns, analysing fuel sourcing issues, assessing land availability and grid capability, developing advance modelling tools, doing sensitivity analyses, engaging with stakeholders, discussing & reviewing each input and outcome at expert level before coming up with a reasonable recommendation on the subject to be taken by the decision makers. (State official responding to CA invitation)

Indeed, another state official believed that “since the audience is mainly made of ‘citizens’, it would be “harmful to talk about policies and priorities at this stage; the impact will be rather negative and demotivating”. It is no surprise that they declined the invitation to participate, even as they had enthusiastically accepted our previous invitations to closed and exclusionary workshops, which one of the authors was involved in organising in the past.

The dystopic path of this imagined future is not missed by citizens and experts in the room who are paying, literally, the price of the failures in the sector through expensive subscriptions to private diesel generators. Whilst these systems of private power generation grew organically in the eighties, during the Lebanese civil war, as a grassroots-led solution to energy shortages, they have long since become entangled with elite power in Lebanon who control and profit from sales of diesel to smaller generator owners (Ahmad, 2020). The opposition to such a system is not primarily because of its environmental impact, although that indeed is grave as the presentation by Professor Najat Saliba in the CA indicates, but because that system is not delivering on its promise of providing 24-hour electricity while still draining state resources and causing a rise in carcinogenic health impacts in cities.

The second imaginary is ‘**the ecological fix’ imaginary** driven by many environmentalists and energy experts and, in tandem with the global energy transition efforts, proposes solutions dependent on renewable energy, like solar and wind energy.¹³ Sharp (2022) describes the ecological fix as the possibility of capital switching “on a massive scale toward an ecologically and socially progressive reconfiguration of infrastructure and the built environment in a way that sustains the long-term viability of biophysical goods and services.” One expert referred to it as a “techno-economic-environmental vision”:

Before we talk about solutions we have to talk about visions. At a very basic level, the state has no vision for energy, and this vision depends on what Lebanon we want, we have to build a new Lebanon on new foundations. We don’t just want to solve the electricity crisis, we want a new economy, one that protects the environment, protects public health, provides clean public

¹² For details of the government policy see (GoL, 2010, 2019)

¹³ See for example the vision proposed by the Lebanese Foundation for Renewable Energy (*The Lebanese Foundation For Renewable Energy*, n.d.) <https://www.lfre.org/> and Greenpeace’s (2019) report (Greenpeace MENA, 2019)

beaches etc. They [the government] are permanently in crisis management mode rather than a vision – we want a techno-economic-environmental vision. (Rony Karam, energy expert, in response to CA member during Q&A)

Much of the research to support this an imaginary is funded by environmental activists, financial actors from the international community and humanitarian aid groups (Hassan, 2011; IRENA, 2020; UNDP, 2017). During the CA, experts presented scenarios of renewable energy production, based on solid assessments and studies proposing what they thought was a realistic scenario of producing 50% of Lebanon energy through solar farms in various areas of Lebanon. This proposal would require central government regulation and involvement to upgrade the grid and implement net metering laws. Questions posed by members at the beginning of the CA focused on the feasibility of such a scenario, and on ways in which it can be implemented at a smaller local urban scale. Generally, given Hamra's geography as a small densely populated area with many high rise buildings, many participants did not believe that solar energy could provide the energy required to meet consumption levels in that area or other urban areas of Lebanon. It was a challenge to stretch imagination to the national level, when the focus of participants was on immediate solutions to the crisis at the local level, and in ways that avoided state involvement. This imaginary should be read and understood alongside the dynamics of broader trends in the global energy transition which have yet to make substantial material change in the Arab world. Sharp (2022) concludes that "there is no evidence of an "ecological fix" in the Arab world to adapt or mitigate climate change" as much of this imaginary is "top-down, financialized, plagued by greenwashing, and framed around infrastructure and urban mega projects" (ibid).

A third imaginary is of **decentralized and privatized regional or sub-regional grids** with some form of central state regulation. This perspective of distributed generation and market-based interventions is reliant on global neoliberal imaginaries for an energy transition largely pushed by global trends and the interests of some international actors in green ("ESG") financing. Responding to state failure in building additional power plants, but still driven by the aim of providing for growing energy needs, opening the way for smaller scale production-led either by municipalities or by private sector actors or public-private partnerships (PPP)-allows for quick provision of energy needs. This might come at a higher cost than EDL, but will not be higher than the cost of EDL and private generators combined, and will improve the quality of the service. Part of the argument for privatization (or at least partial privatization) is one that critiques the monopoly of EDL over production and sees value in competition in energy production to reduce cost. This requires, as detailed by energy expert Jessica Obeid in the CA,¹⁴ the unbundling of the sector and EDL services, with several companies competing in production and distribution while maintaining transmission with EDL. Such a model does not dismiss a greater share from renewables, but its focus is rather on the policy pathway that allows for sector improvement. The validity of such a pathway was the subject of much discussion in the CA, with criticism and the call for a greater role for the state coming mainly from a historical perspective, noting the history of privatized energy generation in Lebanon and the danger of not holding the Lebanese state accountable for its role in the sector (see Abu-Rish, 2015 who gave a presentation to members on the history of EDL). The question of privatization was raised and debated early on in the CA but was often confused with the potential of "decentralisation" and allowing the constitutional right for municipalities, for example, to provide energy services. The latter argument is inspired by relatively successful Electricite Du Zahle (EDZ)¹⁵ and is promoted mostly by energy experts, although it does have positive echoes among a few political actors who see in this a business opportunity.¹⁶

CA members offered us another imaginary, at once inspired by the experts' perspectives and critical of them. **The dystopic but realistic citizen imaginary** expects further state failure and is experiencing everyday struggles with all other government public services beyond energy. This imaginary sought circular/inter-connected solutions across sectors that are autonomous from the central government. CA members voted for an energy mix less optimistic than that proposed by experts, despite knowing that the proposal of 50% of energy from renewables is technically realistic, citizens based their decision on it being not politically feasible. A justified pessimism and lack of trust in central state action, coupled with an urge to find solutions to acute problems that affect most aspects of their everyday life, meant that citizens attempted realistic solutions that they can implement themselves. They thus side-lined technically optimistic but possibly politically naïve proposals - unless the political system was overhauled. One CA participant, for example, framed it as being "not convinced that Lebanon will become better with the same political elite. We have to change it first. In this country, natural resources are mismanaged, and the people who have financial interests, such as the diesel owners, will not leave it behind easily". Another CA participant emphasized "the role of citizens, mayors, civil society and NGOs in such a transition towards cleaner energy sources, and how can we start implementing such projects at the local/municipal/regional level first".

This looks like a better designed, integrated system in which energy provision, waste management and clean water could be provided by, for example, new waste-to-energy technology. The latter example was presented by an academic in one of the sessions and quickly captured the interest of members. This imaginary preferred proposals that met the justice principles they valued, and members were interested in ways of pooling community resources, such as encouraging large local enterprises to lead the way. The American University of Beirut was given as an example of how the vast resources it has could be shared locally. This does not mean that they preferred the neoliberal approach of privatized solutions or the breaking up of the state utility, EDL. They also emphasized thinking about reconstruction in integrated ways, and not disconnecting sectors, given that infrastructures are collapsing into each other rapidly.

¹⁴ See UCL - Relief Center. (2020, October 23). *The q&a from the first session of the RELIEF Centre's Citizens Assembly on Energy in Hamra*. <https://www.facebook.com/watch/?v=1078447959287922>

¹⁵ See for example the presentation of George Khoury in the CA (9 - *Electricity in Hamra: A Proposal for a Sustainable Solution*, 2020) and (Ahmad, McCulloch, Al-Masri, & Ayoub, 2020)

¹⁶ See the file on energy privatization in Al-Akhbar on 2 March 2017, particularly (Zbib and Akiki, 2017)

While we did not hear an articulation of such an imaginary as a complete whole by any of the CA participants, or by energy experts before the CA, it was communally formed and adopted by those in the room, emerging from the debates, and largely in response to the other imaginaries that were presented. This last citizen imaginary builds on a long history of managing, through hybrid local systems, everyday energy needs amidst difficult political and security contexts, and central state's failure, including fifteen years of civil war. In recent writing on energy in Lebanon, [Abi Ghanem \(2021\)](#) uses the "assemblage" theoretical perspective to examine the hybrid and heterogeneous electricity provision systems in Lebanon during and post civil-war, and the multiplicity of mostly local actors involved. She argues for building on the extensive local assemblage of generator ownership and management, and the entanglement of community relations and ownership, in the efforts to implement distributed renewable energy systems ([Abi Ghanem, 2021](#); See also [Moore & Collins, 2020](#); [Moss & Francesch-Huidobro, 2016](#); & [É. Verdeil, 2019](#)). The imaginary emerging from the discussion is different from the "post-grid imaginary" that [Nucho \(2022\)](#) describes, one that is privatized and individualized and seeks "energy independence" at a time of energy scarcity. It is rather an imaginary of interdependence that seeks to create communal integrated networks as a collective small scale solution at a time when nation-wide solutions are not perceived as possible.

Whilst these four imaginaries, existing in dialogical relationship are, according to [Jasanoff](#), a "crucial reservoir of power and action" (2015, p. 17). They each attach to different networks and sources of power. The first imaginary has the state apparatus behind it, whilst the second and third benefit from actual resources and funding through financing or aid from different international actors (such as the World Bank, UN agencies etc.), and their technical expertise and networks. The citizen imaginary articulated during the CA appears to occupy the weakest position in power and network structures at the national and international levels. Whilst this highlights the possible futility of practices of participatory democracy, if not accompanied by political will or action, the CA still allowed the opportunity to highlight that imaginary and afford it more space in policy discussions.

5. Conclusions

"Everyone has electricity and we have [generator] subscriptions. We call it a revolution; they call it mobilization. They brought us these [gas] barges, They told us it was a better solution. In the end it turns out It's just farting to the wind."¹⁷ 2019/2020 Protest slogan.

This paper outlined how communities question modernisation narratives on energy transitions and climate emergency discourses that are driving many development interventions around the SDGs in the region and in Lebanon. Energy futures in Lebanon are insufficient, unstable and unclear, and so the first question to ask when designing a CA is, who are energy futures for, how and why? We demonstrate how a locally-designed CA (with or without central government involvement) contributes to visions and narratives suited to contexts and conditions.

The pursuit of energy justice and decarbonisation in the energy transition needs socio-technical thinking that moves beyond expert-centred future-making to more grounded and people-centred imaginings. Our CA demonstrated citizens' desire for energy that is less a process of extraction, but as a circular mode of life that can offer sustainable energy, water, and food production whilst, at the same time, it showed dampened aspirations for renewable energy diversification by 2030. The empirical findings from the CA demonstrate that the people's perspective can introduce a socio-political realism to technical proposals. A CA offers a deeper and more meaningful opportunity to understand local contexts and conditions needed to build people-centred visions of energy futures. There may always be a tension between what is feasible, possible and desirable, but unless deliberation takes place over matters that require long-term planning, energy futures will remain at the behest of politicians and experts.

Democratic deficits and public distrust and alienation from formal politics is particularly acute in Lebanon. There has been a political impasse/standoff, and no government formed for extended periods of time. The CA method, reflecting a pattern in other countries where CAs have organized following mass protests (such as in France after the 'yellow vest' protests, in the UK after Extinction Rebellion protests and in Chile after major protests over inequality), is one way of strengthening the capacity of communities to imagine and constructively deliberate sustainable energy futures in both formal and informal settings, with or without government involvement. Significant adaptation and translation had to take place to educate participants and the general public on the concept of a CA and the methods of deliberation practices.

Citizen Assemblies are labour intensive, time-consuming and expensive compared to surveys, polls or consultations. Even though the theoretical underpinnings of deliberative democracy are of important normative and epistemic value, they require substantial collective effort, coordination and input. There is a trade-off between the urgency with which some matters like the climate emergency need to be addressed, given the speed at which protests are repressed and the time and costs of constructing a CA.

Another point is the comparative differences in social, political and cultural responses of different countries (states and citizens) to the climate emergency that creates the imperative for a CA. Climate assemblies in the Global North assume that a "net zero" future is possible as an imaginary, and the focus becomes about not 'if' but 'how'. Governments discursively committed to CA outcomes even if legislative change remains an obstacle. President Emmanuel Macron of France, for example, initially committed to adopting 149 of the 150 recommendations made in the Citizens Climate Conventions in France, but then only put 40% of the recommendations into a climate law ([Phalnikar, 2021](#)). In Lebanon, and much of the region, the response to the climate emergency has to begin by deciding the vision and target in the first instance rather than assume an energy transition is wanted/desired. The CA that we adapted was to show that setting this vision is possible, and should precede the discussion on solutions and technological adoption.

¹⁷ The chant borrows from an old and popular children's song, the chorus for which starts with "Everyone has a car, and my grandfather has a donkey" and the choice of this same song in the protests is a play on the same tension, between a desired "modern" and the perceived backwardness of what is actually available.

Deeper questions on decentralisation (and what this means) and the role of the state, that were mentioned but not explored in the CA, demonstrate not only the need to expand the scope of the CA but also highlight the importance of first exploring the meanings of energy justice and to decide where the locus of power and responsibility lies. The CA showed that to assume the central government, despite decades of failure and corruption, will be able to deliver on reform and transition promises is unrealistic in the absence of trust, whilst experts deemed it necessary. Is there a way to transcend the binary questions on state and non-state actors and centralized versus decentralized solutions?

Finally, the direction of an energy transition process cannot be considered linear or homogenous for all geographical regions and social groups, and hence an analysis of timing and contextual conditions in specific geographies is crucial for the success of a CA. In practice, Brazil's National Policy Conferences, are a good example of how the CA can connect the local with the national through multiple local-level citizens' assemblies. In that case local representatives sit on a national level assembly that can focus on specific matters that require long term solutions, and for which traditional parliamentary systems have failed.

Our paper also raises questions for further research on energy futures, and the need for deeper public engagement and awareness. Some of these emerged within discussions but were not resolved. Firstly, the need for public understanding of the differences and tensions between "decentralisation" and "privatisation" that are being conflated by members and some initiatives promoted by by international aid actors. Another issue was understanding that the "state" is not necessary monolithic and centralised, and that the "state" operates at different scales with different models of self-governance. In Lebanon, there are constitutional obstructions to energy provision by municipal authorities, and public debates on this would be welcome. The CA to some degree reflected the tendency for the private sector to be framed as being the best and easiest way to bypass state corruption without exploring alternative public procurement and community ownership models. The question that could be posed here is, what alternatives are there for public ownership at different scales? What comparative examples exist of countries who have implemented circular economy models that integrate energy, water, and waste systems? What the pilot CA demonstrated is that discussions of energy futures should never be about energy alone. The energy transition can be a path for democratization and social justice together and more broadly.

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