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The IGP's vision is to help build a prosperous, sustainable, global future, underpinned by the principles of fairness and justice, and allied to a realistic, long-term vision of humanity's place in the world. The IGP undertakes pioneering research that seeks to dramatically improve the quality of life for this and future generations. Its strength lies in the way it allies intellectual creativity to effective collaboration and policy development. Of particular importance to the IGP's approach is the way in which it integrates non-academic expertise into its knowledge generation by engaging with decision-makers, business, civil society, and local communities.

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ABSTRACT

The Citizens' Assembly Pilot (CA) on energy justice and electricity was a conceptual and a methodological experiment conducted over five sessions over three days in the neighborhood of Hamra and Beirut in October and November 2020. The CA aimed at exploring meanings, dimensions, priorities of energy justice in a deliberative democratic setting.

The CA tackled five main questions: **How did we get to where we are? What is energy justice to us? What is the energy-mix we would like to have? What do we need to be doing as individuals and communities to achieve a better energy future? How should we move forward with our decisions on the above questions?**

The responses produced interesting findings for researchers and international stakeholders to consider further; such as skepticism over renewable energy targets, the interest in circular solutions to address multiple intersecting service sectors like waste and water in particular. It also raised questions over decentralization as well as privatization at different scales of governance.

The CA was designed through a deep process of community stakeholder engagement, subjecting all pre-Covid original plans (deliberation questions, logistical matters) for closer review by these stakeholders. It was agreed that physical meetings would be essential for the success of the CA. A hybrid model in which digital tools were used in ways to enhance delivery of information and communication would reduce contact time, but would allow in-person meetings that focused solely on deliberation to take place in shorter durations. Overall a much better version of the CA was produced, with digital resources that could be used in the future.

The participants suggested moving to build raising awareness of energy justice, to rebuild trust and to rethink the roles of academia and local governance. The citizens' assembly model could be taken forward in the following ways to co-create future CAs. It could be expanded to look at circular economies by connecting the issue of energy to water and waste. It could expand to other neighborhoods and regions in a connected network model. Or it could be run at a national level with representative members from across the country. The report concludes with several key technical, institutional and regulatory recommendations for the electricity sector and operational lessons for futures CAs to consider.

SECTION I

OVERVIEW OF THE CITIZENS' ASSEMBLY: PROCESS AND CO-DESIGN

I.I INTRODUCTION

> "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 beaches etc. They [the government] are permanently in crisis management mode rather than a vision - we want a techno-economic-environmental vision."
>
> **Rony Karam in response to CA member during Q&A**

Countries in the Global North are increasingly using citizens' assemblies in their work either to augment the decisions of governments, parliaments or municipalities or as part of social movements addressing climate change. The assemblies enable decision-makers to understand peoples' informed and considered preferences on issues that are complex, politically/morally contestable or require democratic legal or constitutional change after a process of deliberation. This report outlines the results of a pilot citizens' assembly conducted in October 2019. And tries to answer two main questions: **how should citizens' assemblies be adapted in a Global South context particularly the Middle East and how can a citizens' assembly introduce justice framework to energy provision?** In order to answer this question the RELIEF Centre along with its partner, the Issam Fares Institute at the American University of Beirut ran a pilot citizens' assembly pilot (CA) in October and November 2019 in Lebanon.

The country has been going through tumultuous times; an uprising that began in October 2019, the Covid19 pandemic in March 2020 and the catastrophic explosion in Beirut's main port in August 2020 has left the economy in decline. These multiple intersecting crises have affected peoples' quality of life; diminishing job opportunities, and diminishing facilities of public services in education, health, clean water and energy. The pilot citizens' assembly (CA) on electricity and the energy justice was initially planned to take place in 2020, just a week after Lebanon went into lockdown on March 15th as a response to the global covid-19 pandemic. The socio-political mobilization had already begun to wane but by the time it was carried out a few months later, the mood and political situation had shifted to fatigue and despair. The need for one however remained and the CA was adjusted for different purposes; to build solidarities where they may have weakened and to transform the desire for political participation, into a mechanism of co-creating solutions to end energy shortages that may be used for advocacy.

The thematic aim was to develop energy justice narratives that are publicly accessible and that can bridge the scientific, technical, economic and political dimensions of a just energy transition. This is to facilitate the co-production of electricity generation systems that serve the public interest and deliver tangible community benefits, such as better health outcomes, decent and stable employment, public space and transportation, and new public, private and civic institutions.

The CA was a small-scale localised experiment that includes the adaptation and translation elements required to run any future full-scale citizen assembly in the region. The pilot therefore is more concerned with the method than the outcome per

se given the scale, with some indicative results that may be of interest to specialists in the field of energy.

Citizens' assemblies have a number of key features including:

- Equitable participation: assembly members are representative of the wider population;
- Pedagogical and Participatory process: assembly members go through a three stage process of learning, discussion, and decision-making.
- Information and knowledge sharing: the evidence presented to assembly members during the learning phase is balanced, accurate and comprehensive;
- Independent facilitation: the assembly is not facilitated by the organization that commissioned the assembly.

This report will outline the main design features and development process of the CA documenting the extensive preparatory planning that has taken place.

Many CAs over the past two decades have taken place in several countries in the Global North, with an accelerating interest in Climate Assemblies in the UK in particular where parliaments have established large CAs in England, Scotland and France to explore ways of reaching net zero by 2050. Very few national-scale CAs have been conducted in the Global South. Over the past year, Chile embarked on CA following protests that began around the same period as Lebanon's uprising. Though various forms of mini-publics do exist at different scale and in different formats, we will describe the opportunities and challenges of building a context-specific CA with its own customized format. The extra time and effort that is required in designing the features described above and selecting the questions to be answered post particular ethical and political challenges.

The pilot CA - *Visions without solutions, or solutions without visions?*

The community of Hamra, a multi-religious, cosmopolitan urban neighborhood of Beirut, demonstrated good will, resurgence of newfound collectivities and civil society, and the informed and creative thinking required for solutions to problems, like energy shortages, that have thus far been politically intractable. Despite this, it is a period of immense fear and uncertainty, with major restrictions on mobility and concerns for health and safety. A process of re-thinking and adaptation took place, with more detailed health and safety planning. The pilot CA in a new and upgraded form took place over two weeks from October 23rd 2020.

The CA has been designed to explore energy justice and visions for a sustainable, equitable, affordable and effective energy system in Lebanon. This requires both a national and an individual assessment, as well as a multi-stakeholder approach. Using evidence from experts and well-designed deliberative methods, members of the public deliberated and decided on the best way for their community to move forward within a national agenda.

It brought together 33 citizens (instead of the planned

50 which had to be reduced for social distancing measures) who reflect the diversity of population in Hamra, an area in Beirut.

It ran over four half-day sessions spread across four days with digital communication in between. Part of the pilot was to test the concept in terms of duration and appetite.

I.II WHAT IS A CITIZENS' ASSEMBLY?

A citizens' assembly (CA) is an organized gathering of members of the public who meet to learn about, deliberate and discuss an issue, with the aim of producing recommendation for future solutions. In a citizens' assembly, a group of randomly selected members of the public reflect on an issue of public concern. The aim is to bring together a cross-section of society. Participants hear from experts and stakeholders, ask questions, deliberate on policy options and make recommendations for future solutions that shape their needs.

In order to explain the concept, principles and process of a CA, we worked with a professional designer to produce the following infographic in Arabic. It places the members in the centre, and highlights the process of (1. Listening and learning 2. Discussing and deliberating 3. Suggesting and deciding). We also included the different groups in the room, experts, organising committee, facilitation committee to avoid confusion about who would be at the CA. The number of observers was minimised to three which included local civil society and journalists.

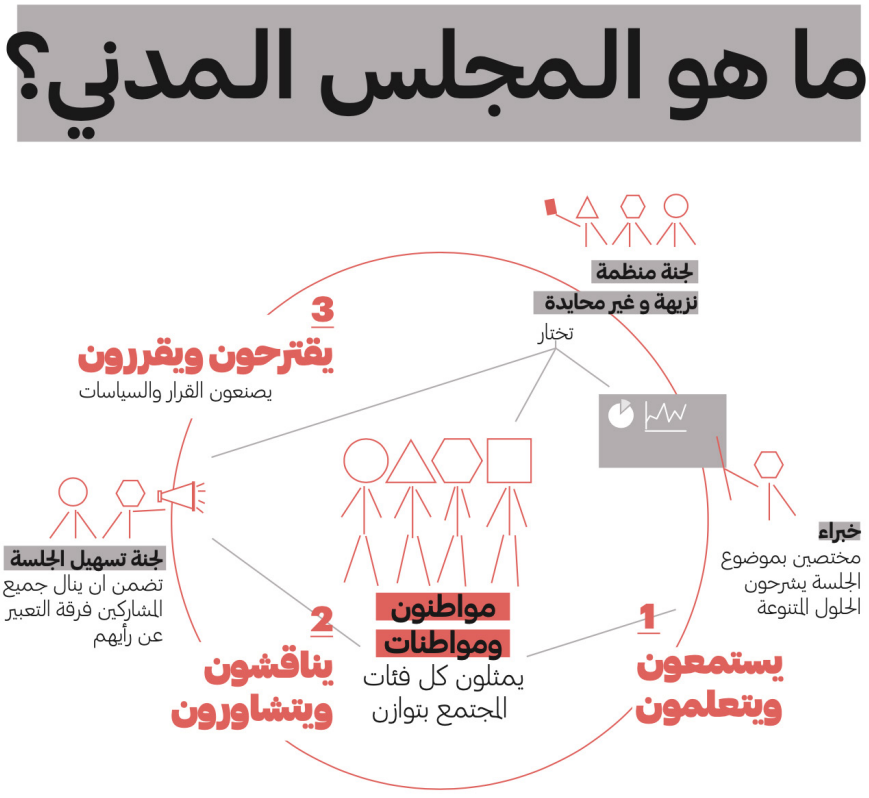

Diagram 1. *What is a Citizens' Assembly?* An Infographic

I.III WHAT WERE THE AIMS OF THE CA ON ENERGY JUSTICE AND ELECTRICITY?

The thematic aims of the CA, set by a group of stakeholders consulted on priority questions, were to answer the following:

1. How did we get to where we are? Setting the scene of the electricity challenge; history, current state and future challenges
2. What is energy justice to us?
3. What is the energy-mix we would like to have? What are the pros and cons of how we generate electricity?
4. What do we need to be doing as individuals and communities to achieve a better energy future?
5. How should we move forward with our decisions on the above questions?

During the CA, RELIEF researchers presented data they have gathered from a household survey of residents in Hamra, and energy experts with specific knowledge of local and national technical and policy challenges presented their views on the questions above. This was then followed by participant-led discussion about how these challenges are experienced by participants and their households in everyday life. We worked with a small group of citizen social scientists, members of the community who have been trained in research methods and research management. They participated in the design of the CA, recruitment of participants, data collection and transcription and they carried out detailed note-taking and communication with each group.

The framing of the CA will encompass energy justice principles set out by (Sovacool et al., 2017) of availability, affordability, due process, transparency and accountability, sustainability, intergenerational equity, intragenerational equity, responsibility, resistance and intersectionality.

This pilot will provide guidelines on framing, vulnerability, distribution and learning on how to conduct citizen assemblies across other SDGs (e.g. water, waste etc.) and how to use a CA to respond to particular contextual emergencies e.g. garnering discontent into a positive process of co-creating solutions to urgent local need and the global challenge of climate change, particularly where there is high distrust in politicians and state institutions.

With regards to research aims:

1. Piloting and testing a citizens' assembly methods as a people-centred, evidence-based approach to energy solutions and an integrated methodological approach for localized and bottom-up thinking and change.
2. Consolidating and breaking down the boundaries between energy specialists, citizen scientists and members of the Hamra community.
3. Engaging local residents and disseminating RELIEF's data on energy infrastructure, cost, and accessibility in Hamra.
4. Collecting data about personal experiences of energy issues in Hamra, as well as views on energy transition, and preferences for specific engineering solutions.

We have also included evaluation components throughout the process and commissioned an independent evaluation who observed all of the CA sessions. This is discussed in the last section of the report, but throughout the report we have included the relevant results of the members' evaluation survey and the evaluator's feedback as part of an integrated collective reflection process that is needed to improve the pilot going forward.

I.IV TRANSLATION, ADAPTATION AND LOCALIZATION OF THE CONCEPT OF A CITIZENS' ASSEMBLY

Constituting a citizens' assembly as an engagement, deliberation and decision-making method needs careful adaptation to the social, political and economic context in which it is being applied. When we first started planning the pilot in 2019 just after the uprising began, the political situation was very different to the situation which existed at the time when we ran it in 2020 where there was a lockdown. The euphoria and hope for change that motivated the need for a CA at the start, changed after the relapse of conditions that were politically worse than the 2019. The objectives of the pilot had to adapt.

The condition of the participants themselves has also changed, because of the social, economic and political situation, as well as because of the changes in electricity supply in the city and the impact this might have had on them. The summer of 2020 was mostly without electricity, as a fuel crisis caused cuts all over the country and left Beirut in the dark for more than half the day and many nights. These cuts allowed many residents to realize how grave the impending electricity shortages could be as the foreign currency reserves fall and the government becomes unable to pay for fossil fuel to generate electricity. Paradoxically, the blast of August that destroyed a good part of the city, brought electricity back as aid – including in kind supplies of fuel – allowed increase power supply. Nevertheless, it brought the discussion on accountability and justice back to the forefront.

Translation of the term and the concept 'Citizens' Assembly'

There has not been any CA organized in any Arab country yet, and no Arabic language literature about it. The concept of the CA itself, needed to be grasped by some of the organizers themselves, none of whom had the opportunity to attend a CA before. The concept and the terms also needed to be translated and explained to the experts, stakeholders and potential participants.

At the outset, the team had to begin by finding a term to call a 'citizens' assembly' in Arabic.

There was no appropriate literal translation, for either of the words "citizen" or "assembly. Another problem we faced was with the connotations that some translations held, mostly because of the term's history or because of their use by local political groups. To make a decision, we started a consultation with colleagues and academics from outside the team, and on social media to both hear recommendations of appropriate words and to gauge some of their interest in the concept itself.

For "citizen", the most common translation 'muwatin', carries with it connotations that it only includes those who hold the Lebanese nationality, and not all residents in the area, a significant percentage in a county that hosts around two million Palestinian and Syrian refuges and foreign workers. Other terms that would commonly translate as popular (شعبي) or People's (اهلي) did not convey the role of the CA beyond consultation and into formal decision making. Some terms were also gendered, and to make the title gender neutral we would have had to use both the masculine and feminine forms, resulting in a long

and cumbersome title. We opted for “madani”, which literally translates as “civic”, but would be accepted as inclusive of all residents and appropriate for policy discussions.

The term “council” on the other hand, had all too many translations. Our selection took into consideration the length and ‘permanence’ of the event/group that the word conveyed. Words like ‘Jam’yyeh’ (جمعية) for example, which is used in the Arabic translation of the UN General Assembly, gave a connotation of a long-term permanent structure and is usually what NGOs are called in Lebanon. Other words like ‘Multaqa’ (ملتقى) or ‘Mu’tamar’ (مؤتمر) described an event or get together, but did not bring to the forefront the people who constitute it. We also shied away from terms that would not be usable in other countries, like ‘Amiyyeh’ (عامية), which brings a history of people’s political consultation and engagement, but is too specific to the Lebanese context. We settled for the term ‘majlis’ (مجلس) which is the common translation of “council”, but is the term used in Arabic for the house of parliament and the council of ministers, and those positing the CA as a parallel space for citizen participation in decision making. In a literal sense, it means ‘where people sit’. A full list of terms is available in the appendix.

To explain the concept behind the term, a short, animated video was prepared by organizers with an audio-visual team, that aimed to explain the political value of the CAs in deliberative democracy and simplify the constituting elements of the CA and the process of learning, deliberation and decision-making. Given the lack of Arabic language material on the subject, this video was envisioned as a resource for use beyond the organization of this one CA in Hamra, and thus was produced in in simplified Arabic accessible across around countries and made no specific reference to electricity in Hamra. It was screened in the beginning of stakeholder meetings, shared with experts and interested participants, and screened again at the beginning of the CA itself. In parallel, and making use of the same visual language of the video, an infographic was produced explaining what a CA is, and included in the information booklet.

Assumptions about the conditions for running a CA

There are several unwritten assumptions about the conditions under which citizens' assemblies take place based on several ‘standards’ that we reviewed from various bodies who run Citizens' Assemblies in Europe. The first is that, the country enjoys freedom of assembly and freedom of expression. Of course, not every country has this. While Lebanon has enjoyed relative freedom of expression, the past few years have witnessed a crackdown on critical voices, including activists and journalists, who have been physically threatened, arrested, or faced with defamations suits. In the case of the CA, the concern was less that of restrictions to CA members and experts meeting and sharing their opinions, but rather the possible co-optation by the state for purposes of raising international funding requiring public consultation.

The requirement that a citizens' assembly is ‘open and transparent’, there is an assumption of safety and permissibility. Although we took this approach, there were serious concerns expressed by members of the delivery team, of state actors either using the event in their negotiations with international partners to claim their support of consultative processes or possibly to undermine the CA, the proposals of the experts and the validity of the premise that consultation with citizens is of value.

There are also assumptions, or presuppositions of the democratic process which the CA can ‘enhance’ or ‘augment’ and the theory of change with respect to policy and impact; that the informed decision of a group of citizens, would be heard by decision makers, let alone actually change governmental plans

and priorities. In the absence of such a possibility, stakeholders and participants questioned the value of holding the CA and wondered who would take its recommendations forward. Attempts at engaging policy makers appeared possible when we started planning the CA, at a time of heightened political dissent when the CA would have been an opportunity for the MoEW to appear responsive to criticism. By the summer of 2020, policy makers had lost interest, especially as electricity generation in Lebanon was facing yet another crisis and pressure on participation carried no political value. We extended invitations to both central government and local municipalities, some of which we knew personally or had worked with in the past. In the future, if their participation is to be secured, much longer and engaged efforts including one-to-one diplomacy would be advised.

In addition, many of the examples of CAs globally which occurred in a democratic context were commissioned by governmental or political institutions at great cost – cementing both a direct interest and investment in the CA and a commitment to its outcomes. For the CA in Hamra the commissioning institutions; an international research consortium (the RELIEF Centre), partnering with local academic institutions (American University of Beirut), neither commissioned by, nor in partnership with any decision-making body. The organizing team, made up of energy experts and social scientists, with their professional character and the parallel stakeholder consultation have given the CA and its decisions relative legitimacy, yet on the decision-making side of the CA, policy impact in the absence of state interest, needs to be thought about in a different way and reframed the CA as more of a learning and discussion opportunity to drive bottom-up change and narrative shifts.

The binary between “experts” and “citizens” taking part was another assumption challenged through the process. Participants, having navigated electricity cuts for years and followed up on public energy debates had a wealth of knowledge on the impact of electricity cuts, the reasons of the sector’s malaise, and had well developed views on the way out of it. Stakeholder consultations held in the lead-up to the assembly introduced the organizers to new voices who contributed to the CA as experts.

For some of the experts, this CA was a rare opportunity to address a public audience, and translate academic or technical knowledge into legible practical propositions. It gave insights into the level of knowledge and understanding of people around the topic of energy, as well as their willingness to deepen this knowledge. This is important because among experts an equal level of knowledge is assumed, but the real challenge is in relating to broader public understanding which this infrastructural problem concerns. This CA therefore allowed the experts to see from the eye of the citizen, and to understand how far/close the collective is from this energy transition, as well as give an idea about the process needed to ensure the transition is effective on a wider scale. The involvement of the community and the spreading of awareness is a necessary component moving forward in addressing the transition towards a more just energy system.

Community stakeholders: from engagement to ownership

At the outset, we carefully considered how we should be thinking about participatory research and community engagement when communities are facing severe hardship, and the possibilities for social transformation appear to be structurally restricted. We need a CA that did not impose more burden on already struggling members. It is therefore not about what we ask of communities, but what communities ask of us. To begin this, we embarked on community stakeholder meetings via zoom in which local civil society as well as urban and energy NGOs participated. The first stakeholder meeting

took place on June 24th 2020. Around 25 people joined the call from the following organisations: Lebanese Foundation for Renewable Energy (LFRE), Natural Resource Governance Institute (NRGI), Lebanese Oil and Gas Initiative (LOGI), United Nations Economic and Social Commission for Western Asia (UNESCWA), United Nations Human Settlement Programme (UN-Habitat), Greenpeace Middle East and North Africa, Public Works, Neighbourhood Initiative of the American University of Beirut (AUB-NI), Legal Agenda, UK Lebanon Tech Hub (UKLEBHUB), Crowdpowered, United Front of Ras Beirut, Ras Beirut "Al Horsh" Public school, T Marbouta restaurant, and independent experts. The mixture of energy specialists and local community organisers provided for a richer discussion in which different p erspectives w ere s hared. I n t he e nergy space, the conversation between experts has largely been had in elite and closed spaces and focused on the technical dimensions, financing o r p lanning levels.

A techno-determinism can prevail in these spaces which can often be influenced b y i nternational a id donors. Those working at the community level, are concerned with the social and political dimensions of energy that affect t heir q uality o f l ife a nd perceptions of fairness. These issues as well as the more fundamental question of 'what is the role of an energy citizen' were discussed in various ways. This multi-layered complexity of the energy crisis has hindered the transition to renewable energy and public discourse on this will determine the first wave transition we have seen in Europe based on a shift in consumer preferences for climate action.

Continuing with the process of co-production of the Citizens' Assembly, the CA delivery team conducted its second consultation meeting on 30th July 2020. With approximately fifteen participants from AUB NI, entrepreneurs, energy consultants, the Mayor of Akkar, academics and local stakeholders.

To summarise the feedback that we received from these conversations with civil society figures, facilitators, advisors and speakers over the past month, focused on the context and worsening conditions as well as the effects of the pandemic, the impact of the port explosion and general economic collapse:

- A general mood of frustration, despair and hopelessness that affects level of political engagement. In particular, trauma and mental health effects on our staff and interlocutors was of serious concern.
- Conditions of severe economic hardship and insecurity at the loss of jobs and businesses, high inflation and cost of food
- High levels of anxiety and despair with declining government services, particularly health, reconstruction, and economic welfare and pandemic management
- The collapse of governance mechanisms of responsibility and accountability in critical sectors, with a government not formed for months
- Government officials declining invitations to engage in any public-facing events and encounters
- The rise in numbers of COVID-19 cases, and unpredictable recurring lockdown measures
- Increase in emigration applications with foreign embassies and the desire for many in general to leave if they can
- That there is no need for further postponement of the CA given the level of deep uncertainty and lack of horizon over when better circumstances will happen or how long pandemic measures will continue
- Reduction in physical spaces where people can meet, for example, Chehab Gardens, the venue we had initially booked to run the event, has now shut down, and even hotel venues like the Crown Plaza had window damage in their main hall.

Reconstituting the public sphere in lockdown

Taking these into consideration, we then asked the question, how would we reconstitute a public sphere under these conditions? How would we hypothetically and practically bring people together to convene a citizens' assembly? There was an agreement among many that:

- A physical meeting is necessary and could not effectively be replaced by a wholly digital forum. A hybrid model was proposed.
- Speaker presentations should be filmed and shared online before every deliberation session to allow time to process information and formulate questions
- Physical meetings should, be short in duration, involve smaller groups, be in an outdoor or very well-ventilated space and socially distanced.
- Digital engagement can happen via WhatsApp for informational purposes, but effective deliberation and discussion can better take place in smaller groups

We decided to go ahead with CA including as many of these suggestions and making the following changes to the structure the citizens' assembly using a hybrid physical and digital form in the following ways:

- Two evening sessions on Friday 23rd October and Friday 30th October
- In the interim week, filmed speakers' presentations will be shared and all questions for each presentation can be shared in WhatsApp groups
- A final digital session on Saturday 31st October
- The members will be split up into group bubbles that will have a dedicated facilitator and one team member, they will stay together throughout the CA, and avoid mingling with other groups through physical demarcation of the space

Further adaptation to the model were made as follows:

- More open and flexible recruitment rather than strict sortition and stratified sampling and a reduction in the number of members from 50 to 30.
- Door knocking was deemed too risky, and a more active telephone recruitment strategy was employed that explained the need for collective consensus-building and understanding. The CA was also advertised online on local Facebook groups, and many interested residents expressed their desire to take part.
- To be ready for an all-digital citizens' assembly if lockdown conditions changed and gatherings were banned
- Extending the role of facilitators in designing and convening sessions
- Opening up participation and intervention to all stakeholders who took part in the consultation
- To present the government perspective regardless of their presence as best as possible by knowledgeable experts

Key Recommendation: it is important to include community engagement plans at the start and to build a sense of community ownership at the outset by co-producing design features, agenda and voting questions. This can be done by holding regular briefing meetings/workshop about ongoing planning and preparation especially in new contexts that might perceive new methods as alien or incompatible with current systems.

I.V CA MEMBERSHIP: RECRUITMENT AND RETENTION

The recruitment of members for the CA was carried out by the RELIEF Centre's citizen science team who are themselves from the area. One citizen scientist Assia AlHarrache and one member of the RELIEF Team, Mayssa Jallad, took charge of this endeavor utilizing their knowledge of conducting a household survey and building-by-building knowledge of the area. This household survey revealed the following demographic breakdown and energy provision data:

and the risk of second lockdown. General appetite was particularly low, many within the networks the organizational team are familiar with were now unemployed and had other priorities. Recruitment was particularly challenging for other reasons: the novelty of Citizens' Assemblies in Lebanon made it necessary to explain the concept and purpose in every phone call and invest in lengthy conversations; the subject of energy and electricity though one of the top issues of discontent but was met with

Population Overview for Citizens' Assembly	
	Population %
	100
Adult Lebanese (generator)	35.47%
Adult Lebanese (no generator)	15.12%
Adult Lebanese (off-grid)	10.90%
Male Adult Non-Lebanese (generator 10.6%, no generator 10.4%, off-grid 4.3%)	11.23%
Female Adult Non-Lebanese	8.07%
Youth Lebanese	7.00%
Youth Non-Lebanese (Syrian)	1.37%
Elderly	14.45%
Migrant workers (not inhouse)	2.10%

Figure 1. *Population overview from 2019 Household Survey of Hamra*

There were multiple challenges to the recruitment of CA members. Physically, pandemic measures and restrictions on mobility disallowed the possibility of door to door recruitment for health and safety reason and because the time available to recruit was limited to ensure the CA took place before a possible second wave around Winter (which indeed occurred later)

cognitive dissonance because energy is considered a technical subject for which ordinary people have little understanding or power. Though other CAs in the Global North rely on a postal system, the absence of a population frame of addresses also removed the possibility of invitation letters to a random sample.

Methods of recruitment

Our method of initial contact was:

1. Calling people who gave us their contact information in a previous survey (a sample of about 300 numbers)
2. Posting a RELIEF Contact number for recruitment on posters which we hung around Hamra
3. Creating a Facebook event via the AUB Neighbourhood Initiative, a local initiative with a large following within the Hamra community that asked for interested participants to apply. The latter two methods received a large number of applications; however the overwhelming majority were men. (See Challenges for more details).

In order to aim for a diversity of participants within Hamra, we set criteria for recruitment that reflects the diversity of the neighbourhood based on the aforementioned survey's findings on the population. Criteria included gender, nationality, age, marital status, whether they live or work in Hamra, profession, education, whether they had generators or were only subscribed to public electricity (EDL). We applied the overall demographics of Hamra onto a sample of 30 people. The recommendations and effective recruitment are demonstrated in these tables:

Target number and type of population Recommendation (30 total=15 males, 15 females)	**Target reached?** (Targets were overreached to account for unreached targets and anticipated dropouts)	**Output** (34 total, to anticipate dropouts= 21 males, 13 females)
11 Lebanese adults with generators, half men half women	Target overreached*	16= 7 females, 9 males
5 Lebanese adults with no generators, half men half women	Target reached	5=3 females 2 males
1 porter (natour)	Target reached	1 male
1 Non-Lebanese adult male with generator	Target overreached	2 males
1 Non-Lebanese adult male with no generator	Target overreached	4 males (includes natour)
1 Non-Lebanese adult male off grid – not reached	Target not reached - we later found out that the recommendation was not accurate, as this was a survey error. Nevertheless we found 1 youth who was off-grid!	1 male (youth)
2 Female Adult non-Lebanese	Target reached	2 females
2 Lebanese youth	Target overreached*	3=2 males, 1 female
1 Non-Lebanese youth	Target reached	1 male
4 Elderly	Target unreached (COVID-19 concerns)	1 male
1 Migrant worker	Target unreached (language issue, non-Arabic speakers)	0

Figure 2. *Recommendations and Effective recruitment for the Citizens' Assembly on Electricity in Hamra, September 2020*

*Targets were overreached to account for unreached targets (elderly and migrant worker) and anticipated dropouts (recruiting 4 extra participants). Since we added 5 Lebanese adults with generators and 1 Lebanese youth (6 total), we added 1 non-Lebanese with generator and 2 non-Lebanese with no generators (3 total).

The CA's members come from all walks of life from the neighbourhood of Hamra where they all live and work. They include parents, grandparents, and people without children; teachers, accountants, shop owners, bartenders, university students and natours (porters). The oldest was 69 years old; the youngest 21. Given the small scale of the CA, we expected some people may know each other, even as the sample was as random as possible.

We recruited 34 participants in total, among them:

- 21 men and 13 women
- 26 Lebanese and 8 non-Lebanese (7 Syrians, 1 Iraqi)
- 29 Adults (25 to 64 years old), 4 youth (18 to 24 year old), 1 elderly (above 64)
- 19 Single, 14 married and 1 widow
- 14 live and work in Hamra, 11 only work in Hamra, 9 only live in Hamra
- 4 accountants, 2 managers, 2 journalists, 2 electricity technicians, 2 students, 2 bartenders, 2 unemployed, 1 housewife, 1 shop-owner, 1 coordinator, 1 cashier, 1 plant manager, 1 school director, 1 artist, 1 digital marketer, 1 teacher, 1 retired, 1 natour, 1 freelancer in community work, 1 waiter, 1 entrepreneur, 1 chef, 1 legal researcher
- 9 Bachelor's degree holders, 8 non-specified, 6 Master's degree holders, 4 Technical degree holders (BT LT), 3 university students, 2 Baccalaureate degree holders, 1 masters student, 1 Brevet degree holder.
- 24 had Generators and EDL, 1 had EDL with personal generator, 8 had EDL no generator, 1was off-grid

From the members' evaluation survey, 68% agreed that "All relevant groups in the community were represented" and 23% were neutral.

During recruitment, we also asked a few questions about the current electricity shortages they may be facing.[1]

When asked how much the power cuts increased/ decreased since October 2019, respondents said that at one point electricity cuts reached 18 to 21 hours of electricity cuts a day, and this improved after August 2020 when Lebanon received some fuel aid. At least 23 members experience over two power cuts a day, reaching four power cuts for some. In addition, 17 members said that their electricity bill had either doubled or tripled over the past year.

[1] When asked how many hours did the power cut in September 2020 (one power cut usually lasts 3 hours):

- 2 answered once a day
- 3 answered between once and twice a day
- 15 answered twice a day
- 3 answered between twice and thrice a day
- 3 answered thrice a day
- 2 answered between thrice and four times
- 6 don't know

When asked how much has your generator bill increased since October 2019

- 2 said less than double
- 10 said double
- 7 said triple
- 8 don't have a generator
- 7 don't know

Recruitment challenges

Timing: Because of the timing and the pandemic, it was difficult to get people to commit to the CA over a month ahead of the event. This gave us a small window frame in which to recruit assembly members. This time limitation made it more difficult to reach target numbers for the elderly, domestic workers and female adult non-Lebanese even more difficult. With hindsight, an early and wider strategy to reach target numbers of these under-represented groups should start earlier and before other groups.

Sortition: The sortition method developed by the Sortition Foundation amongst others is recognized as a kind of unquestioned gold standard method for recruiting citizens' assembly and consists of stratified random sampling. This method involves sending invitations to randomly selected households within the geographical area that is to be represented, and then sorting through those who agreed to participate in order to reflect " a true microcosm of the relevant community" (Hennig, 2020). Our recruitment methods described swayed away from this but strived to be as close to a random sample of people living and working in Hamra, as possible. We relied on phoning households that previously agreed to share their numbers with RELIEF Centre, or in adverts on the street or Facebook. We achieved a diversity of participants in all groups except for: elderly and migrant workers and were short on overall gender parity. The specific obstacles to the participation of these particular group are as follows:

The elderly: due to covid-19, this is the most difficult to reach group among all social groups in Hamra due to their increased health vulnerability to the virus population. Most of those invited to become members refused to go outside of their home or meet in groups. The oldest member was 69 years old. We offered transport support, and remote participation, but we simply did not want to take the risk with older groups given the medical situation. Digital participation was also possible but there was no appetite when offered.

Non-Arabic speaking migrant workers: the organizing committee decided that the CA would be exclusively in Arabic. This excluded the non-Arabic speaking migrant community from participating, as many of them have a limited knowledge of the language. It was difficult for the recruitment team to explain in Arabic what a CA would entail. Finding a migrant domestic worker with good Arabic skills would be a challenge requiring more time from recruiters.

Women: We did not manage to achieve overall gender parity for several reasons:

- Women who we reached out to and who refused to participate stated their disinterest in the subject of "Electricity in Hamra" (*"ma bihimni"* "It doesn't interest me", "not beneficial to me")
- Most of those who responded to the adverts and expressed desire in participating were men
- There was a particular difficulty in reaching Female Adult non-Lebanese by phone (either by contacting them, or by them calling the number), which we needed to overreach as a target, per Figure 1. This was mainly due to the fact that many non-Lebanese women in Hamra, and especially those who belonged to vulnerable groups, rarely had access to their phone and often had to take permission from their husband to leave the house, since they feel foreign and unsafe in the city. According to Assia AlHarrache, Citizen Scientist and CA participant recruiter, "since many get married early on, they are not all open minded to participate in events and talks, in places like [hotels]. I even noticed this in household surveys, women would often be sitting there while their husbands would do the survey on behalf of the family".
- Taking a further intersectional approach, the same reasons listed above for obstacles targeting the elderly overall include and disproportionately affect elderly women and migrant women

Although we had originally planned to offer childcare facilities on site, this could no longer happen, and we decided to offer childcare support in terms of extra financial support for any female participant with caring responsibilities.

How can we improve future recruitment?

Recruiting for this first Citizens' Assembly in the Middle East has been a valuable learning experience. Future recruitment would benefit from a more precise target-number of participants which already accounts for possible dropouts as the recruitment sampling was being calculated. In COVID-19 times, we can also learn to anticipate low to no participation from elderly people at in-person events. We should also be aware that limiting the event to Arabic speakers, although it includes a larger slice of Lebanese and Arabs, excludes migrant workers who do not have good Arabic speaking skills.

This experience has shown that even amidst the worse of crises, people of Hamra are willing to commit to public events. We can now trust that had we given the recruitment more time, we would have had a larger sample of participants to choose from, perhaps allowing us to reach out to more women. We recommend a longer period of recruitment that begins well in advance of four weeks with weekly reminders to those who agreed to participate.

It would be interesting to experiment with flyer delivery in Beirut, as well as door knocking, especially targeting households with women, as a recruitment strategy. Targeting women in particular in the Facebook advertised post would also help curve the gender ratio towards a better balance.

It is important to note that as Citizen Scientists and recruiters, our networking potential was not fully utilized. We personally knew many more inhabitants of Hamra from the groups we needed to target, but we chose to stick to a random sample in order to be the truest to the sortition method. Could it be beneficial to use the CS network next time? Perhaps in second degree: we would recruit acquaintances of acquaintances that would fit the profile.

Random selection at a neighbourhood level is much more challenging than at a national level because of the familiarity and proximity of people within the neighbourhood. Hamra is a particular diverse area of Beirut with a rich ethnic, religious, sectarian demographic. In other neighbourhoods in Beirut, certain sectarian groups may dominate – the challenge of recruitment in those parts would be more difficult.

What we offered Members

The question of financial payment during early planning was contentious. At the time, accusations of 'foreign interference' by Western government via paying people to participate in protests were circulating. To be seen as paying people to take part may serve to delegitimize the CA. However, after consultation we came to the conclusion that it is only fair to compensate for time and expenses and this was well-appreciated by members.

The question that followed, was how much would a fair rate be? We offered participants an honorarium of $50 for their participation in all the sessions. At the time, the declining value of the Lebanese lira due to the worsening economic situation increased the value of this dollar payment. The payment was made at the end of the CA. The members were offered tea and coffee during sessions and food packages after each session to take home to minimize time spent at the venue as a COVID-19 precaution measure.

Recruitment and retention results

There were only three dropouts during the citizens' assembly, 2 of them Lebanese women who came to the 1st session, and one male Syrian who did not make it to any of the sessions despite confirming

attendance. Retention was high, and the team stayed in contact with members throughout to assist them should they come across circumstances that would affect their participation. The CA was relatively short, but it is something to consider over longer periods.

As a recruitment team, we were in constant liaison with each member. We focused on ensuring that everyone had everything they needed ready for the first assembly weekend. This included providing any necessary support and answering logistical questions.

The use of the WhatsApp messaging service was invaluable in staying in touch with members within the same group during the CA, and an opt-in all-member group once the Citizens' Assembly on Electricity was concluded. The large WhatsApp group is currently functioning as a community of participants that share news on electricity and season's greetings. We hope that any initiative on electricity in Hamra would utilize this network and explore its potential.

Assembly members spent much of their time at the assembly working in groups of seven. We created seating plans to make sure there were a diverse range of assembly members within each group with its own dedicated facilitator to form bubbles that would remain together throughout. We also set up a WhatsApp group for each group so that communication could continue after the sessions were over. We therefore did not change the seating plans to ensure continuity of the hybrid physical/ digital model.

I.VI ACCESS, INCLUSION AND WELLBEING

Access and inclusion were key considerations throughout the assembly. In particular, the covid19 pandemic situation made this even more important and determined decisions around venue, venue's location, and timings of the events. Many of our preferred venues, that were more in the centre of the neighbourhood and which would normally be used for community events, had closed down during the pandemic. We required a strong internet connection within the venue, stable power supplies and other event services. A hotel venue would be the only place that could offer these things.

We organized sessions in the evenings and weekends to allow those who worked during the day to attend. We offered extra payment to cover childcare costs to encourage the participation of women. We also checked all assembly members' needs and preferences during recruitment through a set of questions around childcare or disability needs. Transport access was offered where wheelchair access would be required. During recruitment we also checked to see if participants had access to smartphones and certain applications like WhatsApp and Zoom. We also tested these in person and provided guidance during sessions to make sure they worked for everyone and assisted those with technical difficulties before the final zoom session. We also allowed members to come to the sessions earlier to watch videos on a large screen if they had not had a chance to watch them during the week.

Members evaluation survey findings:

- All members said there were "no obstacles or circumstances that made it difficult for them to attend this Citizens' Assembly
- Members gave an average rating of 8.9/10 for the level of support that the organizers provided them to attend the Citizens' Assembly.
- Members gave an average rating of 9.4/10 for the overall atmosphere of trust in the Citizens' Assembly

Independent and professional facilitation

The organizing team worked with a group of professional facilitators with particular experience of grassroots and community engagement and deliberation methods. During sessions, facilitation techniques that helped ensure everyone had a voice, particularly under-represented groups such as women and refugees/migrant workers. If they took longer to engage in discussions, the facilitators provided encouragement and space for them to participate. Each facilitator worked to ensure that everyone in their group understood the task at hand and feels able to speak and contribute, and that all the perspectives around the table are genuinely considered.

They also kept the discussions on topic and ensured as far as possible that each task is completed within the time available. Crucially, facilitators never expressed any views on the matters under discussion. Nor do they operate as sources of knowledge. Their focus was entirely on the structure and process, not the content, of the discussions.

Evaluator's feedback:

"One of the facilitators expressed that the CA involved people from many different backgrounds, and that some were not used to participating in spaces with seminars...

or group discussions. There were therefore some difficulties in engaging in discussions with others, whereas other members, more used to such social interactions, felt comfortable and would sometimes talk too much. There is therefore a need to think of other ways to empower and encourage discussion also among those without previous experience of similar settings."

Members evaluation survey findings:

- Members gave an average rating of 8.7/10 for the question "Do you think you had the chance to express your views.
- Members gave a rating of 7.7/10 for the question "Did you have the chance to hear other member's views"
- Members gave a rating of 9.5/19 for the questions "how comfortable were you with sharing your views during the Citizens' Assembly".

Overall these findings were positive. The slightly lower rating given for the chance to hear other member's views could be the result of both the noise levels given all groups were in one hall, the distance between members, and the use of masks which muffled the voice of any speaker.

Accessibility of the material presented and energy literacy

One of the adapted design features of the CA was to move in-person expert presentations into a pre-recorded format. We recorded 14 videos overall, and this allowed us to reduce in-person contact time within the sessions to reduce infection risk. We found that the pre-recorded video presentations were well-received as people could listen and watch at their own pace and which allowed them to note and review some of the technical information within each presentation. It also allowed experts to rehearse and use a more accessible and digestible presentation. It also allowed us to review the content and to provide a glossary list of key technical terms that were included in an information booklet and which each member could refer to. This approach served to build a set of resources that could be re-used in the future.

Given the technical nature of the topic, the information provided could potentially be confusing and overwhelming for members. We therefore undertook a deeper design-approach with a professional designer to streamline all the material produced through an information booklet. The booklet guided members through the sessions and videos, offering them space to note and record questions for each session. The glossary of technical terms served immense educational value and demystified the topic of energy. The booklet was in itself something a resource for each member to keep and refer to in the future.

Evaluator's feedback:

Videos and presentations were in general accessible, with little jargon and no assumed prior knowledge. Documents, videos and assembly discussions were all in Arabic, which made the content accessible to most people in Lebanon.

Most assembly members (70%) expressed that the videos were clear and understandable. They also said that other content was clear and made them understand the electricity crisis in Lebanon better. All facilitators also expressed that the videos were clear and that the format (short videos) made the expert content concise and clear.

Members evaluation survey findings:

- All members said they watched all the videos
- Members gave an average rating of 8.9/10 on the clarity of the videos and 8.8/10 for their ability to understand the provided materials and information

Overall this feedback inspires confidence in the ability and willingness of ordinary members of society to engage with the topic of energy justice. If presented in a clear and digestible way, technical topics do not need to be an obstacle, and a good way to improve energy literacy. Energy literacy therefore is one of the positive outcomes of the CA and we believe the use of digital videos may have been more effective than in-person presentation given the ability to review content at members' own pace.

Making the venue more Covid19 secure

Through extensive community consultation it was deemed difficult to hold the pilot completely virtually. At the time, gatherings of up to 80 people in Lebanon were allowed and we were able to secure a very large venue (that can usually accommodate 500 people).

The idea of smaller groups was also one to do with health and safety. The smaller groups would serve as 'bubbles' and would be kept as far as possible from other groups. Where usually as much mingling, networking and mixing of groups is an approach that would be used to encourage people engage and discuss more, we wanted to minimize the time spent at the venue, whilst ensuring each group got a chance to discuss, ask questions and deliberate. In terms of general precautions: each char was kept two meters apart, mask-wearing was compulsory throughout, except when speaking one at a time, hand sanitizer was on each table, food was a takeaway parcel given at the end, and all windows were open for ventilation. During the first session, it was clear that people got tired faster with masks on, and voices were less clear through the mask. So for the following sessions we changed the following: those speaking would be allowed to remove mask, a break was given half way through to catch breath outside.

I.VII ASSEMBLY DESIGN AND STRUCTURE

The postponement of the CA allowed us to re-think the CA design and structure through stakeholder consultation. We decided to break up the CA into smaller sessions over three days and the members into groups that would remain in bubbles. It was important however that members felt they were part of a collective larger group.

These questions were co-produced with stakeholders in the consultations over June and July, there were different opinions on what scale the questions should focus on i.e. whether the focus should be at national level policies or local and neighbourhood level policies and what individuals could do. Those who argued for the former, felt that the energy crisis is a result of central government failure that needs to be questioned. Whilst those who advocated for the latter, felt that neighbourhood and local level focus would empower members to think about what was possible within their own means and capacities. Within each question therefore we tried to address both scales.

Session 1 Where are we and how did we get here? What does energy justice mean to us? Setting the Scene

Voting question: in your opinion what are the most important priorities for energy justice in the electricity sector?

Session 2 (in-person): Lebanon's energy mix: Where should we get our electricity from?

Voting question: *What is the optimal energy mix that the electricity sector in Lebanon should follow by 2030? What is the proportion of renewable energy that Lebanon should seek to produce as a target?*

Session 3 (in-person): Better energy efficiency: How do we reduce how much electricity we use and produce?

Prioritizing questions: What are the easiest and most important methods of reducing electricity consumption that we should adopt?

Session 4 (online zoom): Summary of citizens' assembly's priorities. What are the recommendations we would like the CA to push for? What am I able to do as an individual.

Overall, the shorter duration of the sessions reduced the available time we had and this shortage of time for discussion and deliberation was expressed in the feedback by members, facilitators and the evaluator.

Evaluator's feedback:

All three facilitators also said that there was not enough time to address more questions and make room for a deeper understanding.

When asked about one aspect they disliked, several people mentioned the time structure and that too little time was given for discussions. Facilitators also expressed a similar view and that it would have been better to focus on one topic instead of two, and take more time to discuss it.

I.VIII HOW THE ASSEMBLY REACHED ITS DECISIONS

The principles of "Learning, Deliberating and Deciding" are key to the process of a CA. The taks was to balance all three elements within the limited time available for each session.

Deliberation questions were in two forms – either voting questions with pre-prepared options (rankings/ prioritization or scales), or brainstorming questions in which assembly members drafted options themselves and prioritized collectively their group preferences. The former provides a guided approach within given parameters and also allows members to explore key tradeoffs that decision-makers face. In terms of time – it enabled the assembly to cover a broader range of topics and issues in the time available. Whereas the brainstorming and collective prioritization questions encourage bottom-up thinking without organisers setting parameters

The voting took place via Mentimeter and the results viewed automatically.

Members evaluation survey results:

- Members gave an average rating of 8.8/10 to the question "How much do you agree with the decision made by the assembly
- 84% agreed that they "took collective decisions in a consensual and understandable way."

I.IX BALANCED, ACCURATE AND COMPREHENSIVE INFORMATION

The assembly team worked hard to ensure that the information presented to assembly members was balanced, accurate and comprehensive. The most challenging elements were the tradeoffs b etween depth and time. This trade off was eased by offering members pre-recorded video presentations and asking them to share their questions via WhatsApp ahead of the session. The other challenge was the absence of government representatives at the sessions both to share and explain government plans. Although our experts presented the government's plans and arguments, some felt there could have been more diversity of opinions and arguments particularly in terms of proponents of fossil fuel developments.

The 'Expert' Panel

Most Western models of citizens' assemblies that we have reviewed embed the binary between 'experts' and 'citizens'. This introduces a hierarchy and a tension in the deliberation process and assumes that experts are 'objective' and their knowledge and their role sits higher. Whilst of course, this dichotomy is hard to break – the citizens' assembly is inherently about topics in which there is contestation, and different opinions and the process of deliberation offers insights into the way ordinary people weigh up those opinions to reach a consensus. This is the basis of deliberative democracy and mini publics. It also brings certain humility in a space where 'experts' have become elites, sit mostly in closed bubbles, or believe 'communities' and ordinary citizens lack the knowledge and ability to imagine or decide these things – they are simply consumers.

We had decided early on that the organising team would include specialists in community engagement, energy policy specialists, social activists and academics to try and integrate and reduce the dichotomy of citizen/expert. During the community stakeholder consultations workshops we asked everyone to contribute to different s essions regardless of background, if they felt they had an important intervention, or to attend as observers. George Khoury, an entrepreneur for example, was part of these workshops and presented his ideas on local solutions in Hamra during one of the sessions.

The government

Many countries today continue to experience forms of autocratic rule or under-developed governance models, or are on a de-democratisation pathway. The opportunity for a citizens' assembly to sit within formal political structures in order to 'enhance', 'augment' or be embedded in policy decision-making is not necessarily valid. It can also be the case, that a CA is perceived to be threatening to the state's interest if a CA invites transparency and accountability. In the energy sector in Lebanon that is plagued by corruption, the shield of technicalities provides a convenient cover to continue thwarting mechanisms of inclusion and accountability.

The question of whether to invite government officials in the first place was subjected to much debate within the team. Some members felt that while the spirit of the uprising continued and demanded the resignation of the government, we should not be legitimizing state politics or inviting state officials to participate. It may provoke and trigger much anger amongst members if those responsible for their dire situation are in the same room. Another point of view expressed was that it is more powerful to be able to subject government officials and their plans to scrutiny so people can perform and experience the

power of accountability. All in all, we decided that we would extend an invitation to officials, in order to understand how they viewed the importance of citizens' assemblies.

While government officials ha d re gularly ac cepted invitations to participate in closed workshops that we had organised in Chatham House and ESCWA in the past, unfortunately they declined the invitation to participate to the CA. At the time, most government officials were avoiding public engagements due to a political impasse following the Beirut port explosions. We received the following response from one official that has been anonymised:

"it is absurd to talk about sustainable energy whereas the country is falling into poverty and hunger, especially given the nature of the event that you are proposing: since the audience is mainly made of "citizens", we believe that **it would be harmful to talk about policies and priorities at this stage;** *the impact will be rather negative and demotivating."*

"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."

"I do agree that peoples' level of awareness on subjects that are related to the relation of their everyday life to energy issues is an important matter that needs to be discussed with them. People need to understand that their consumption patterns have a significant impact on energy policies and they also need to be aware of the possible solutions at their level (i.e. energy efficiency solutions, hybrid diesel generator - renewable energy solutions that are home based or small district based etc....). What I don't agree on in that 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."

This demonstrates a strong resistance to including ordinary citizens in energy matters, and staunch desire to defend the technical boundaries between experts and citizens.

The main recommendation here going forward, is to think about how we can begin to convince the state of citizens' role in decision-making at all levels on matters related to energy.

Transparency

Transparency was a key design principle and we incorporated it in the following ways:

- Videos of all speakers' presentations to the assembly were subtitled and published on YouTube available **here**.
- Videos of question and answer sessions with speakers that took place in plenary are on YouTube
- All stakeholders were invited to review agenda and attend as observers
- A full lists of the assembly's organisers and speakers, and the organisations involved in delivering the assembly, were printed in the information booklet given to the participants. Reports from both workshops are available online and
- We live-streamed all speaker presentations to the assembly online. We also opened the assembly to a wide range of media, stakeholders, officials and politicians so that they could observe the assembly's proceedings.
- All funders and organization involved were listed in all materials

We were careful to balance our wish for complete transparency against the need to protect assembly members' identities. Assembly members had to give consent about whether or not to take part in media interviews, photos and audio/video footage of the assembly.

Evaluator's feedback:

When asked whether the CA was an independent body, everyone responding to the survey agreed. This seems to match with reality: none of the facilitators is directly involved in the energy sector, all material used in the CA was publicly available; a Facebook page and a website were set up with open access to the content.

SECTION II

THE ENERGY CITIZENS' ASSEMBLY IN LEBANON: DISCUSSIONS AND OUTCOMES

II.I SETTING THE SCENE: PROVIDING CONTEXT FOR THE ELECTRICITY SECTOR IN LEBANON

The historical, environmental, and political overview of the electricity sector as well as the data on the local situation on quality of service, infrastructure and costs set the context for the following sessions.

Session 1 Where are we and how did we get here? Setting the Scene

- The history of electricity in Lebanon and the colonial infrastructure of EDL – Ziad Abu-Rish
- Key Facts on electricity in Lebanon: current policies, proposed solutions, current deficit – Jessica Obeid
- Electricity in Hamra, research findings – Mayssa Jallad, Hamra Prosperity Team, RELIEF
- Impact of energy production in Lebanon on health, air quality and environment – Najat Saliba

This grounding was very well-received and many members commented on how they felt much better informed, mentioning the historical component the most. In particular how electricity since 1907, many of the issues preceded the civil war; how pricing, transparency, corporate ownership. In particular, they learnt that there were 469 generators in the Hamra area alone, and 8000 in Beirut, relying on heavy fuel and diesel oil which is creating the visibly toxic air pollution that is detectable high up in the mountains.

The Members asked the following questions:

- *Is there a politically and economically feasible solution to the energy crisis?* One expert commented: there is a law 462 that has been approved by parliament in 2002 that includes an independent electricity regulatory authority and restructuring EDL, which would reduce political interference in governance by employing independent energy experts that people can trust – the law hasn't yet been implemented and there are political attempts to amend this law today and dilute the mandates of the regulator
- *Is the solution to the energy crisis more decentralisation/privatisation?* One of the experts responded that privatisation is essentially the state giving up on its responsibility to deliver services itself, without oversight this has caused many of today's problems. The other issue is the distinction between full privatisation as in monopolisation and public private partnership – the first is that one company monopolises all electricity services vs the second which is allowing several companies to produce and distribute energy. Another replied that having one big corrupt company vs 50 small corrupt ones doesn't help much and doesn't necessarily reduce pollution without agreed health and safety and environmental standards– we will only fall into the same trap. Another expert responded that moving the problem from the public to the private sector is just transferring it without solving it – we have to agree on the visions and standards that we want first. Whereas another expert disagreed and said that privatisation with regulatory oversight could offer a lot in terms of knowledge, experience, wisdom, and their work independently monitored.
- *Has the electricity grid ever been upgraded since it was first built and does it cover the whole of Lebanon?* An expert responded that Lebanon is fully electrified, yet, investments in the grid have been lacking, until recently EDL adopted a

Master Plan for grid enhancement.

- *Can we set up our own power generation system in Hamra relying on gas?* An expert responded that pressure should be put on the government to stop the use of 'fuel oil' because if we don't then we can't use 'filters'. We should pressure the generator owners to use filters through legislation.
- *Why do we still use heavy fuel oil (HFO)?* One of the experts responded that switching to natural gas has been a government policy for a while, but implementation has lagged behind due to political bickering. The likelihood of this happening over the next 10 year horizon is low.
- *Why doesn't the American University of Beirut (AUB) use renewable energy and becomes a good example for other organisations to follow?* Najat Saliba replied that AUB has started implementing solar rooftop systems on its new buildings with plans to expand that to retrofit older buildings.
- *Is Zahle a good example to follow and why doesn't each municipality become self-sustainable in energy provision?* One expert responded that Zahle is producing as much pollution as anywhere else. Another highlighted that decentralisation is needed to reduce the political interference of central government. However, the Zahleh model also places financial burden on the state, as the Electricite De Zahleh (EDZ) distributes electricity from EDL received at a subsidized rate, in addition to Zahleh's own large generators. This therefore increases EDL's debt and needs to be tackled.
- *What do we need to do to reduce pollution from diesel generators, what are the available suggestions and solutions to us now?* An expert recommended switching to generators that run on natural gas, reporting heavily polluting generators by citizens to authorities, and implementing rooftop solar energy to reduce dependence on diesel generators. Additionally, filters need to be placed on generators and generator owners should be aware of the environmental laws enacted by the Ministry of Environment, and implement them. Another discussed point was to centralise the generators in one area, and ensure a just distribution of electricity.

Reflections: this first session contained a lot of new material for the members. During the group discussions we asked that each group to prioritise 2-3 questions for the speakers. The experts were pleased with the overall response and the level debate. Even this early on, questions on pathways to the future around models of privatisation and decentralisation emerged with different positions expressed by the experts. Stakeholders had felt that this topic could be discussed in more detail in future CAs given that it requires more complex conversations and this CA should focus on more foundational questions before tackling such issues.

II.II PRINCIPLES OF A VISION: ASSEMBLY'S PRINCIPLES FOR THE ENERGY JUSTICE

No.	Principle	Description
1	Availability	People deserve sufficient energy resources of high quality (suitable to meet their end uses)
2	Affordability	All people, including the poor, should pay no more than 10% of their income for energy services
3	Due process	Countries should respect due process and human rights in their production and use of energy
4	Transparency and accountability	All people should have access to high quality information about energy and the environment and fair, transparent, and accountable forms of energy decision-making
5	Sustainability	Energy resources should be depleted with consideration for savings, community development, and precaution
6	Intragenerational equity	All people have a right to fairly access energy services
7	Intergenerational equity	Future generations have a right to enjoy a good life undisturbed by the damage our energy systems inflict on the world today
8	Responsibility	All actors have a responsibility to protect the natural environment and minimize energy-related environmental threats
9	Resistance	Energy injustices must be actively, deliberately opposed
10	Intersectionality	Expanding the idea of recognitional justice to encapsulate new and evolving identities in modern societies, as well as acknowledging how the realization of energy justice is linked to other forms of justice e.g. socio-economic, political and environmental

Assembly members' first decision focused on the principles of energy justice that should guide priorities and visions that would be discussed in the following sessions and would underpin their recommendations. Because this is a new concept, the organisers proposed a list of ten standard 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. The principles were based on (Sovacool et al., 2017) as a starting point and were translated and explained during the session.

There is little, if any, material translated into Arabic on energy justice concepts. Ensuring the translation was accessible to a wide audience was somewhat challenging, so was ensuring that the concepts of justice could be conveyed in the short duration of the session. Before a discussion was initiated, each principle was explained, and examples of what each of these principles meant in practice within the Lebanese context were given.

We ran this session at the beginning, allowed for particpant discussion and then inivited them to choose what they considered were the three most important. We ran a second vote on the same question after the third session to see if peoples' views changed based on the information they had received during the sessions.

Voting results

The vote asked assembly members to prioritise three of the ten principles based on what they saw as the highest priority.

The results of the vote were as follows in order of ranking.

Principle	1st vote	2nd vote	3rd vote
Affordability	17	19	+2%
Availability	15	17	+2%
Responsibility	15	17	+2%
Sustainability – went up by 2%	13	14	+1%
Accountability and transparency	9	11	+2%
Intergenerational equity – the votes for this doubled between sessions	5	11	+6%
Intragenerational equity	5	5	0
Intersectionality	5	3	-2%
Due Process	8	2	-5%
Resistance	5	1	-4%

From Sovacool et al (2017)

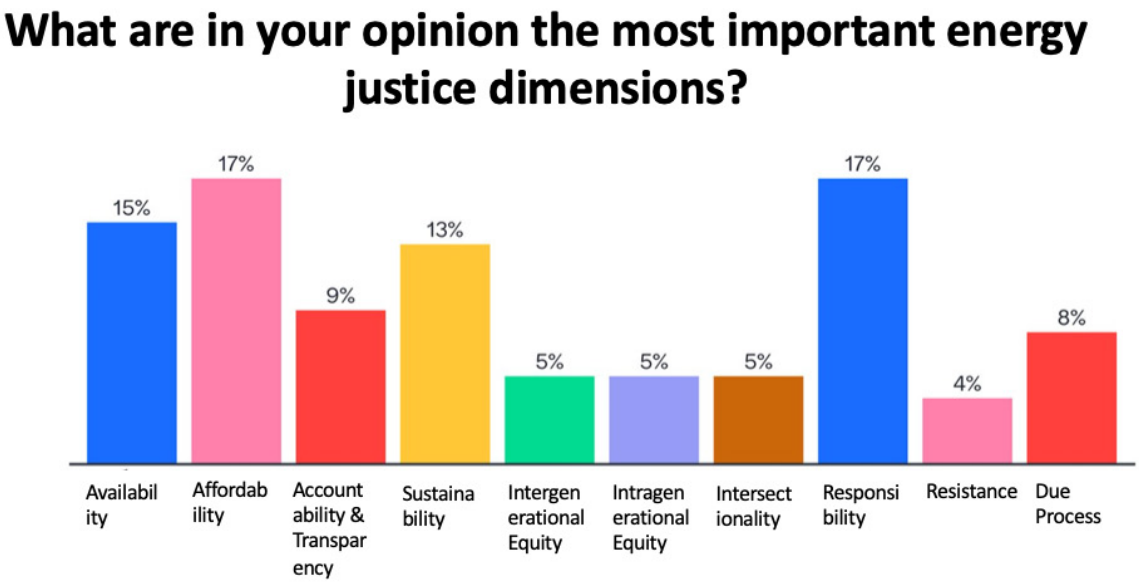

Figure 1. *First Session's Voting Results*

Note: 2% did not vote

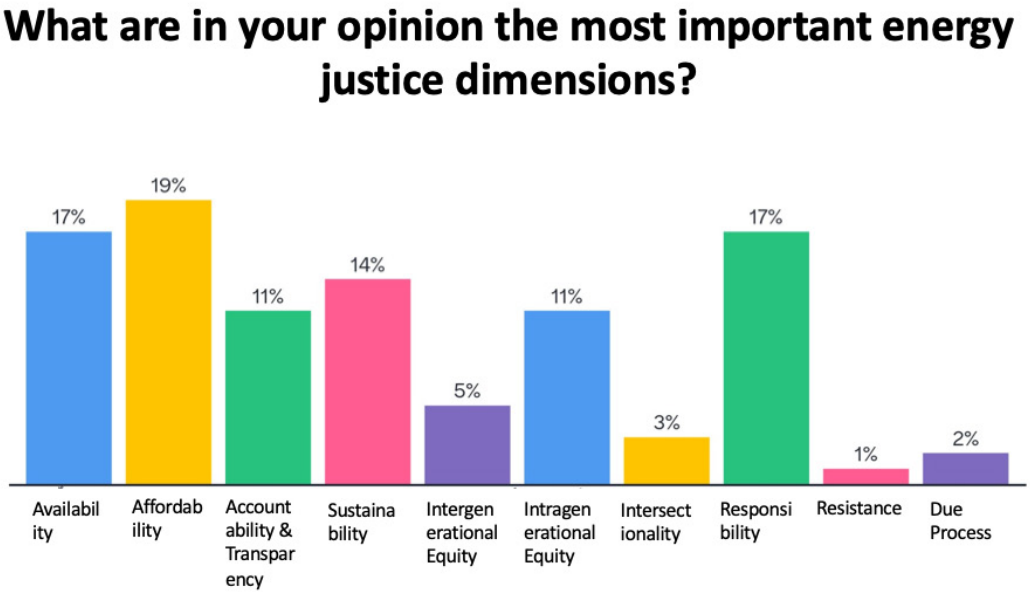

Figure 2. *Second Session's Voting Results*

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 panel 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 idea would then be to use the conversation on energy justice as a point for people to connect what they heard to their lived experience and hopes for future change around the values they would like to prioritise.

In their group, each member voted using secret ballot on their phone using Mentimeter. This session was also to make sure members familiarized themselves with the process and the software. The results are presented above.

It is important to note that the results of the vote therefore show priorities not levels of support necessarily. A lack of votes does not necessarily signal that assembly members disagreed with an idea, just that they saw it as less important.

Assembly members returned to these principles, and considerations related to them, at the end of the assembly to validate them based on any information they had heard. The results for the original top 3 priorities increased, with notable changes for the idea of 'intergenerational equity'.

Voting rationale

The weight given to the three principles ranked as top priority is understandable, given the context in Lebanon particularly at the time the CA was conducted. The discussion and choice of participants though shows how interdependent the principles also are. The four principles, consistently voted by participants as having priority are the following:

- *Affordability*: For participants, this principle meant that energy should be as cheap as possible so it is affordable to as many people as possible. 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 lockdown, it was clear that the financial aspects were given priority at that point in time. The prices of electricity provided by private generators has also increased in the summer before the CA, making the issues of affordability further prominent. Just over half of members had experienced a doubling or tripling of their electricity bills in the past year.
- *Availability*: Each and every house in Lebanon suffers daily electricity cuts; 3 hours a day at a minimum in Beirut. In July 2020. These protracted crises combined with emerging challenges, as these cuts reached record highs, and meant that some residents of Beirut were without electricity for 50% of the day. These cuts were paralleled with fears that in the current economic crises would hinder the ability of state institutions to procure fuel necessary for power generations, causing further cuts (as was the case in the summer). Our scoping questions during recruitment also revealed the majority experience two to four power cuts a day.
- *Responsibility*: Participants appeared to grasp well this principle, through highlighting that responsibility lies with the government and with the people, but 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. The prioritization of this principle is a good example of how participants manifested their understanding of the energy crisis as requiring the joint effort of a wide variety of actors.
- *Sustainability*: Although voted as the fourth priority, one member after the first vote felt they did not know enough about this principle, while other members explained that this is about seeking long term solutions and thinking about future generations, and spoke of it as being very

important to find a long lasting solution that makes us hopeful for the future and not just for today. In that sense, sustainability was understood by some as seeking a long term solution, in response to the government's lack of planning and provisional solutions. Others saw it as closely linked to environmental concerns and to environmental concerns related to intergenerational equity

The deprioritizing of certain other principles can also be linked to the context. Equity for example, particularly Intergenerational equity, was, on the first vote, expectedly of lower importance for Hamra residents who receive the highest number of hours of power supply in Lebanon compare to residents in other regions, and might not be as attuned to inequitable distribution of supply. However, by the second vote, this had doubled to over 11% of the vote. Other principles like Intersectionality appeared to not be fully understood by participants. Surprisingly, principles like accountability and transparency, due process, and resistance receive relatively low votes, despite voiced discontent in the CA of failed state policies broadly and those in the energy sector in particular, 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 all together, and a desire to find solutions that are within reach that can implemented by them or on the scale of their neighborhood.

Reflections

This session was intended to provide a set of guiding principles that participants agree on, and upon which other CA decisions were measured. The discussion only partially achieved this, as it invited a reframing of how we think of energy beyond the technical and political but through a justice lens. We believe that this segment could have been given extra time to enhance the discussion, particularly given the conceptual nature of the theme, unfamiliarity of some of the terms in Arabic and the limited context specific resources on energy justice for the facilitators to make use of. In addition, the long list of principles and the perceived overlap in the meaning of some (as in between the principles of sustainability and that of intergenerational equity) made voting a difficult task to for many participants. A discussion around the principles, and prioritization based on the discussion instead of voting might have been more useful to make use of in future sessions.

Alternatively, a simpler path could have been taken, given the limited available time, to discuss together the key principles upon which participants believe proposals should be evaluated. The direction chosen by participants in the session on energy mix for example, shows that participants leaned towards solutions that dealt with multiple challenges, beyond the energy sector alone. This kind of priority could not have been by the principles that we presented, and shows again how energy issues are often part of a broader set of challenges.

Recommendation: to develop interactive sessions that can describe energy justice principles and narratives further while also giving more space to members to express from their perspective and live experience certain meanings of energy justice. The ability to zoom into the micro and to explain the macro dimensions of energy justice in terms of the decisions that actors make at various scales.

II.III LEBANON'S ENERGY MIX: ASSEMBLY'S ENERGY MIX PERSPECTIVE

Currently, Lebanon's energy mix comes from around 98% of fossil fuels. In 2019, the government has set a target of 30% of renewable energies by 2030 after pledging to reach 12% of its primary energy sources by 2020, a target that was missed due to the consecutive political and financial crises in the country.

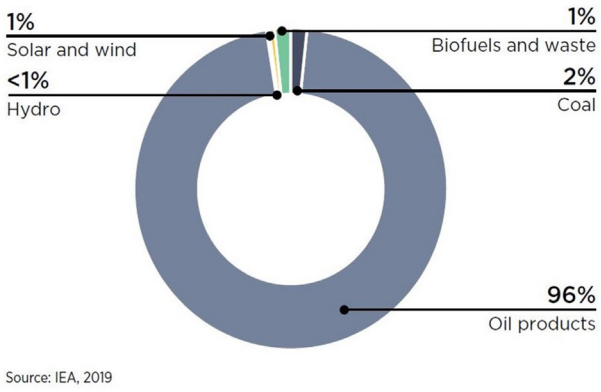

Figure 3. *Lebanon 2019 Energy Mix (IRENA 2030 outlook for Lebanon, 2020)*

In the second session of the CA, the members were asked to consider a future-oriented question about where they would like Lebanon's energy production to come from in 2030. Assembly members reached their decisions on energy mix by discussing their answer to the following question: What is the optimal energy mix that the electricity sector in Lebanon should follow by 2030? What is the proportion of renewable energy that Lebanon should seek to produce as a target?

The members heard presentations on the following topics:

- What are the best ways, options and technologies to produce energy and what is the best energy mix that the electricity sector should use on the local and national levels?
- What is the relationship between energy, water, food and waste?
- What are the renewable energy sources that Lebanon can use on a national level?
- Gas and the energy mix in Lebanon
- Electricity in Hamra: a proposal for sustainable solutions

Assembly members watched five videos of pre-recorded presentations pm these topics and sent their questions via WhatsApp to the facilitators. The questions were then collated and presented to the experts to answer at the beginning of the following session which was conducted in-person. They then discussed their views in their groups.

Following the presentations and ideas, participants had several questions that tackled technical, legal, political, social and financial aspects.

The questions focused mainly around the feasibility of such renewable energy projects in Lebanon compared to other sources (nuclear, oil, gas, etc.) and "how was it possible for a country to reach that dire level of inefficiency while having such [rich] plans, projects and studies". In addition, the subject of waste-to-energy highlighted "the role of the energy-food nexus and its applicability in Lebanon within the current difficult circumstances".

Some other participants asked about "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". On the other hand, legal and political barriers were addressed especially when it comes to the decision-making in moving forward with such projects, and the laws that need to be made available throughout this process.

On the financial side, calls for "the need to have

subsidized small loans at 0% interest to encourage individuals and municipalities to develop such projects, without waiting for the government to implement them". Questions about the cost of such local solutions, especially the Hamra electricity utility, were also raised.

Voting question and result

Each assembly member could then vote via secret ballot for the optimal energy mix between fossil fuels and renewable energy sources on the spectrum between 2% and 50% which were presented as the minimum and maximum possible/viable mix for 2030. To aid them in this process, the Expert Leads presented assembly members with three scenarios:

1. Status quo – this is a basically do-nothing scenario and keep importing fossil fuels at the same rate as today;
2. Government international commitment scenario of 30% renewables by 2030;
3. Accelerated energy transition scenario of 50%.

Together these scenarios covered a broad range of views about what could happen to the energy mix. Assembly members discussed each of the scenarios or 'possible futures' in turn, before voting on them by secret ballot on Mentimeter.

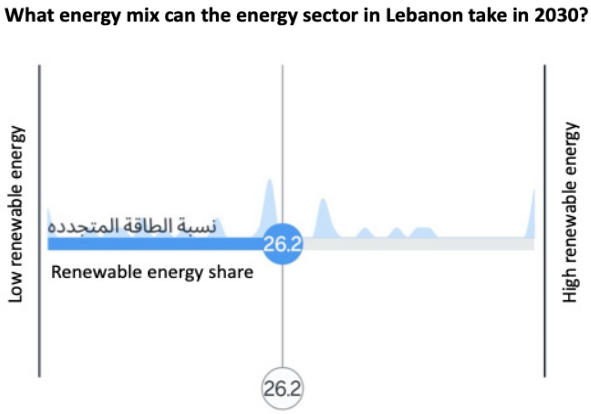

Figure 4. *Third Session's Voting Results*

The average result was a 26.2% renewables in the energy mix by 2030. The distribution of the vote was quite widespread

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Rationale for decision by Members

This voting result was surprising for the experts since it was on the lower end of the scale presented (40-50% was the optimistic target). We start by presenting the rationale for their views.

To start with, a clear takeaway is that the majority of the participants have shown good interest, knowledge and belief in renewable energy sources, be it the technology or the expected environmental and economic benefits. This was highlighted in the enthusiasm shown in some of the participants' interventions, insisting "*that the only solution at the national level should be the implementation of utility-scale solar farms which is cheaper, accessible and affordable*". Another participant stated that *"we should focus the most urgent needs, such as hot water, and here in Hamra, solar energy and solar water heaters is the only solution*".

This reflects earlier discussions and presentations by the experts (in the videos and the Q&A session) which had a positive impact on opening up the imaginary possibilities for the CA participants. However, this was not reflected in the vote, and this could be a result of two main issues.

Firstly, based on the discussions within the groups, some members believed that the expert presentations were too hypothetical, and were not able to conceive the suggestions as a possible reality i.e. they were 'unrealistic'. Knowing the amount of crises and challenges the country is facing, this reflects a tendency to temper targets to more 'manageable' and 'realistic' levels. Members linked the optimistic scenarios with the level of trust in the government and its ability to deliver infrastructure upgrades. Members preferred to be more conservative and choose a lower target when it comes to renewable energy integration. Members, and citizens at large, understandably, went for a mid-range target, given the history of missing these targets, and the systemic mismanagement and dysfunction, this reduces the belief in their capacity to induce change against structural and systemic obstacles. This was reflected by the following statements:

- *"I'm 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".

- *"There is no solution for electricity in Lebanon without a Government. As Civil Society activists, our role is to try and propose, but at the end it is up to the government to implement".*
- *"Things should start from the top, from the Government, and then move to the municipal/ local level, and then to the individual".*
- *"Transparency is key in order to reach such ambitious targets and projects. Citizens should be aware of the policies implemented and be part of the decision making".*

These quotes reflect the deep political distrust in government that is foreclosing the ability to think beyond, to imagine and to aspire for better.

Secondly, and to a lesser extent, the presentation of the concept of a community renewable project in Hamra by George Khoury, after Rony Karam's presentation and ambitious targets might have confused things in the mind of participants and they may have been interpreting the question at the scale of the neighbourhood rather than at the national level. One statement leads to this conclusion: "If we are talking about Hamra, Hamra electricity utility is the solution. But at the national level, solar farms should be implemented". Many also expressed the concern that a highly built up urban area like Hamra would not have sufficient roof top space for solar energy to supply all of its needs. Some members expressed positive views of biofuels but not solar *"I am convinced in the use of waste to energy, but how do we share solar energy without batteries? We should look to Indonesia for how they are using multiple sources of RE. I'm convinced biofuel is good for Hamra – I'm not convinced we have enough roof space for solar energy to be sufficient in a place like Hamra. Solar energy is expensive."*

Evaluator's feedback:

The facilitators felt that the issue of energy mix did not engage people in a debate in the same way as other sessions. There wasn't a different set of solutions members needed to discuss around or a clear breakdown of renewable energy options. The experts in general agreed on the importance of renewable energy and that heavy fuel oil, which is currently used, is polluting and not efficient. There wasn't obvious difference in opinions to open for a debate, at least with the information that were exposed in the time allocated. In this sense, the session on the energy mix mostly served for learning.

Considering that the topic of energy mix requires members to learn about many different aspects of energy production, I believe that there was not enough time to understand it properly. Going more into detail, for example around which energy to prioritize and how energy production should be governed, could have brought more depth and divergence among the different experts, and engaged more debate. In this sense, the way time is being spent and allocated to each question can be reviewed in the future.

Discussions within groups expressed a full range of views amongst assembly members, we agree with the evaluator that without a deeper discussion of renewable energy options the debate between renewable vs non-renewable energy sources turned into a political one that returned members to the problem of government corruption and distrust without going beyond that. A session that breaks down energy sources in more detail and a longer process of deliberation and reflection on the outcomes might lead us to better understand community concerns and priorities a lot better.

II.IV BETTER ENERGY EFFICIENCY: ASSEMBLY'S THOUGHTS ON REDUCING ELECTRICITY CONSUMPTION

To look into the issue of energy efficiency and the need to reduce electricity consumption, Jessica Obeid presented the main case for this topic and an overview of why we need better energy efficiency. There is a severe shortage of electricity supply in Lebanon. Current energy production is 2050 MW, electricity peak demand is 3500MW, with a supply gap of 1450 MW. The threat of more severe electricity shortages in the future and an increase in corresponding black-outs is extenuated by the reduction in foreign currency reserves necessary for fuel imports, and the contract of Sonatrach, the largest heavy fuel supplier for EDL, which expired at the end of 2020, with no alternative supplier contracted at the time of writing. The government is unable to service current contracts: power barges of 392MW contracts, maintenance and operation contracts, and distribution service providers' contracts. A fiscal deficit that is worsening requires further power rationing and better demand side management, as well as a reduction in tariff subsidies. This rationing increases dependency on expensive private diesel generators, but the latter's fuel is also dependent on imports and the availability of foreign currencies. This is aside from Lebanon's climate emergency commitments: to reduce greenhouse gas (GHG) emissions by 15% by 2030 compared to 2011. The energy sector, including transport, is responsible for 79% of the country's total GHG emissions. Power generation is the main contributor the energy sector's GHG emissions because 88% of imported fuel and 53% of diesel and gas are used for thermal power generation.

The session aimed to think collectively about the best way to reduce electricity consumption, and invited experts to present a range of ideas to reduce electricity use at different levels, specifically on:

1. the best and easiest methods to reduce electricity consumptions as individuals at home, at work and at the building level (example: behavioral changes, appliances, time of day use etc.).
2. the best ideas for reducing electricity consumption at the municipal and local or national levels (example in new buildings, price controls etc.).

Summary of the Q&A

Members asked many questions to the speakers as the topic related to everyday practices and issues that can be done at the city, neighbourhood or household level. Maintaining a skeptical curiosity on the viability of solar in urban areas, one member asked if anyone had carried out a *clear assessment on solar energy for households to see if there is a realistic possibility to displace toxic diesel generators and improve energy efficiency*. The expert stated that the installation of solar energy, requires proper site assessments to assess the shading from other building, the height of the building, to assess the viability of integrating solar photovoltaics. Therefore, siting should be done per building, neighborhood, and region. A regulatory framework should be established along with municipality and local governance structures to avoid exploitation of consumers. Another member asked about

the prospects of motion sensors as a potential energy efficiency measure, similar to water sensors. The expert stated that motion sensors are a good measure but only relevant in places of high movement. On the topic of measures for

old buildings, members raised this in the context of heritage buildings in particular. The expert suggested that in old buildings, double glazing can be implemented and would be important for heating and cooling. Lighting and electrical appliances can be changed into more energy-efficient one, in addition to more efficient air conditioners, in order to save on energy consumption. The video presentations tackled the reduction of cooling demand, but there is also a need to stress measures for the reduction of heating demand during the winter season. And although heating is important, the cooling demand from coastal areas such as Beirut is much higher than the heating demand.

- *The need for public awareness on the reduction of energy consumption through media campaigns and initiatives*
- *Need to identify the authority responsible for creating awareness and incentives for energy efficiency and alternative energy; including the role of municipalities, institutions, non-governmental organisations and schools. And if all these stakeholders would fall within one comprehensive plan.*

Raising awareness is the responsibility of all stakeholders, and this can be included in educational materials in schools

Ideas favored by assembly members

The common ideas generated by the groups are as follows:

1. **Campaigning**: need to raise public awareness
2. **Collective action**: need to hire volunteers, and to form a follow-up committee and collaborate with stakeholders such as municipality
3. **Incentives**: need to provide a financial incentive especially in terms of cost savings

The key take-away per group as listed hereafter:

Group 1

- Need to work on researching technologies for the local community and raising awareness
- To achieve that there is a need to recruit volunteers, provide financial incentives and produce pamphlets to be distributed along the campaign
- Need for collaboration between the civil society and municipality
- Integrating civil society and municipalities and finding funding to start

Group 2

- The group reached a consensus that the responsibility is collective and also lies within the citizens; in homes and environment
- there should be a connection between individuals and other institutions such as EDL There's a role for the civil society in designing policies
- Need to link energy efficiency to personal interests such as cost-savings

Group 4

- Public awareness campaign in the city on the use and prospects for solar energy on rooftops, high rise buildings
- Potential of municipal waste to energy
- The use on solar-powered LED street lights
- Need to form a local committee for follow up

Prioritisation results and choice of action

A list of examples of energy efficiency measures was presented to the participants following which the groups decided on their key priority actions on the household/neighbourhood/city level. Nearly all groups agreed that raising awareness on energy efficiency in municipalities and schools agreed this was a priority.

To achieve this, the group found that there's need for regulatory action to be drafted in collaboration with the civil society, municipality and schools. Raising awareness from the early childhood years is necessary, but awareness should also include all age categories.

The group highlighted the need for academic collaboration as well and reflected on the role that the American University of Beirut can play, along with the RELIEF Center which could deploy personnel to raise the awareness in schools and municipalities. The awareness campaign should also be broadcasted through local media channels and should present the ideas of experts in the field.

For the campaign to be successful, the group also highlighted the need to remind the citizens of their socio-political rights, which would also entail collaboration between the civil society and the state-owned electricity utility, EDL.

Reducing energy consumption requires a change in behaviour and culture. For this the group highlighted the importance of linking the awareness to the substantial cost savings on the consumers. Additional financial incentives could also include consumers' energy efficiency and renewable energy loans.

Another action was presented by a participant and had significant consensus and that entailed decentralizing the power sector and the municipalities stepping up to regulate and monitor the private diesel generators.

Members' ideas rationale

Reflecting on the discussions and drivers behind the participants' ideas, a few notes are drawn as follows. The participants learned new information in this assembly that wasn't available to them before and raised their own awareness and literacy, which triggered their suggestion of focusing on the need to raise awareness and energy literacy as a priority. Using the principles that knowledge is power and strength in numbers, collective action and collaboration on what the community needs are required to come up with solutions on the local and wider levels. Members expressed the need for more research on technology and posed further questions on what measures can be implemented reflecting a need for further in-depth discussions.

To summarise the recommendations from this session:

- A public awareness strategy should be developed along with civil society and academia, and the Relief Centre to disseminate the importance of energy efficiency measures in different locations including schools and municipalities. Media and experts should take part in the awareness campaign.
- The campaign should focus on financial incentives including the substantial cost savings from the reduction in energy consumption.
- Achieving energy reduction requires collective action and therefore a platform of collaboration among stakeholders including municipal and local governance, civil society and EDL, should be established.

II.V PRIORITIES AND RECOMMENDATIONS DEFINED BY THE ASSEMBLY

The final session took part on zoom on Saturday 31st October 2020. There were 26 members on the zoom call. Some members sent apologies for not joining due to previous commitments.

1. The session aimed at reviewing the recommendations made during the previous sessions, consolidating and reflecting upon them.
2. The session raised the following questions: How to move forward with the identified recommendations? Who are the expected stakeholders to share the recommendations with?
3. Finally, the session addressed the next steps: The role of the citizens' assembly as a model and its expected outcomes?

Key technical recommendations:

Increased renewable energy in power generation: A consensus was reached on the importance of increased reliance on renewable energy in power generation in the overall energy mix. However, no consensus was reached with respect to sources of renewable energy e.g. solar, hydropower or waste-to-energy due to insufficient time. Members were definitely interested in ideas like waste-to-energy which offered potential solutions to multiple problems such as the waste management problem and the energy crisis at once.

A diversified energy mix: the members suggested a combination of different renewable energy resources along with thermal generation.

Making the best use of available resources: the members highlighted the need to make the best usage of available natural resources per region. They also stressed on the role of rural areas in renewable energy deployment, especially wind energy when applicable.

Developing an implementation model to be deployed in different regions: the members recommended developing a power generation model that combines various resources and can be deployed as plug-and-pay in different regions.

Reducing losses: the members identified the reduction of losses including electricity theft as a key factor in improving the sector and increasing reliance on renewable energy.

Regulating private generators: members recommended centralizing and regulating the private generators under the municipal umbrella.

Conflicting opinions on the role of the private sector: the members did not reach a consensus on the prospects of private sector engagement as some concluded that the private sector is heavily politicized, and therefore their engagement may end up being an indirect engagement of a political entity. Others have proposed the participation of the private sector in energy projects for a defined period of time.

Key institutional recommendations:

Critical role for local authorities: the members have identified the state as the primary responsible entity for the energy sector, and the ministry of energy and water's role is to enact a sectorial strategy which should include municipalities and local players.

Accountability and follow-up promoted in local governance: the members have found that local governance ensures adequate follow-up, supervision and accountability as it has a smaller range than the national governance.

Inclusive approach to stakeholders: the members highlighted potential conflicts with stakeholders benefitting from the electricity status-quo such as generator owners, and recommended including all stakeholders in the solution including the generators.

Building trust through civil society: the members also flagged the absence of trust between citizens and the state and recommended including the youth activists and civil society in developing an electricity plan to bridge the trust gap.

Raising awareness: capacity building and awareness raising with respect to the various factors of the sector were a major common recommendation across the different sessions.

Key sessions' regulatory recommendations:

Implementing existing laws: members have identified that a key regulatory shortcoming is the implementation of existing laws, and recommended reinforcing laws.

Lobby for laws especially related to renewable energy: members have raised the need to identify the necessary renewable energy laws and lobby for their adoption.

Raising awareness on laws: the members stressed again on the importance of raising awareness, this time in terms of existing and shortcomings in regulations.

1. Moving forward:

Who are the expected stakeholders to share the recommendations with?

Government institutes: The absence of trust has also been highlighted throughout this discussion as some members have expressed that they wouldn't want any involvement with the government and the different political parties in moving forward and sharing the recommendations. Others have expressed the critical role of the state and corresponding ministries, as expressed in the recommendations, and identified the ministry of energy and water, the ministry of finance and the ministry of public works.

Academia and local governance: However, there has been a consensus on involving academic partners such as LAU, AUB, and IFI. This has also been recommended throughout various sessions of the assembly. Seeing their role as facilitators, enablers and mediators in a contested political terrain of actors. Other stakeholders for the recommendations to be shared with include the municipalities and Mouhafez and Moukhtars. Civil society organisations have been identified to have a major role in advocating for these recommendations.

Syndicates and Organisations: such as the Order of Engineers and Architects, Syndicate of Lawyers, and donor agencies, have also been identified as stakeholders.

2. Next steps:

The citizens' assembly model:

Co-create a future CAs that continues to focus on energy justice pathways for an energy transition and potentially other topics connected to energy like water and waste

Expand to other regions: members recommended that the citizens' assembly concept be replicated and expanded on a national scale to include other regions, and to cover the various sectors.

Expected outcomes: the citizens' assembly should have an in-depth follow-up spanning over a longer period of time enabling citizens to get more focused on the topic and therefore issue specific recommendations and identify sources of funding to implement them. To achieve this, a smaller group should be identified through the citizens' assembly on each topic to organize and dive deep in that specific topic.

Permanent assembly: the citizens' assembly should be held at a larger range, and should be engaged in the political scene in the form of a permanent citizens assembly.

Evaluator's feedback:

The last session of the CA aimed to present the main conclusions and reflect on the next steps. This was more important than ever considering that decision makers were not involved in the CA, and making an actual impact therefore was challenging. This session was interactive and several people participated actively. Due to COVID-19 measures, it unfortunately happened online which did not allow for the same possibilities of for interaction and participation.

SECTION III

EVALUATION OF THE ENERGY CITIZENS' ASSEMBLY IN LEBANON

III.I ASSESSING THE ASSEMBLY

Since this was a pilot, the role of evaluation is crucial to developing a better model for future. The organisors commissioned an independent evaluator, Angela Sa'ade who was supported by Hanna Baumann and the UCL evaluation team in providing both formative and summative evaluations. The overall assessment of the assembly relies 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 Angela Sa'ade. Angela's presence throughout the CA offered an objective assessment and proximity for quick feedback to the organizing team where things could be improved before the following sessions. We chose to include the evaluators feedback and observations throughout the report to demonstrate more succinctly how evaluation is an inherent part of any CA and should not be thought of separately or summatively especially since this is a pilot.

Based on this pilot, Michael Tan has published a masters dissertation and working paper on the theories of change of citizens' assemblies using this CA as a case study. Within it we look at the principles of a CA and how they could be evaluated.

Assembly members' views of the assembly

Assembly members were asked to fill in a written survey a few days after the completion of the CA. Overall the feedback was overwhelmingly positive, with constructive ideas on how to improve the CA and take it forward. 93% of the assembly members said they would participate again in a CA if they were invited.

Here we present the responses to the open questions first before jumping into the quantitative survey results. All the bullet points refer to directly translated quotes.

What did you like the most about the CA?

Feeling included and valued:

- The direct participation of the beneficiaries of the [electricity] service in discussing the best way to access it, the deliberation and participating in decision-making.
- The way the wellbeing of citizens was centred

Accessibility of information and the experience of deliberation

- The clarity of the objectives, the comfort in participation, the freedom in discussion and the accessibility of the topics to allow everyone's participation without encountering language or terminology barriers
- The way everyone was united around their desire to solve the energy problem
- Summarizing the issue of electricity through several short videos to avoid boredom and being overwhelmed with information. The idea of deliberating around solutions

Others referred to the quality of the discussions and the freedom of expression, the involvement of the majority of people affected by the energy crisis especially youth, trust, cooperation, diversity, unity, respect, receiving useful tips that affect our everyday lives that we did not know about.

What didn't you like? What things can we improve in the upcoming CAs?

Shortage of time:

- The time was tight because of Corona but I think if we had more time we could have achieved more
- The time available for discussing ideas and technical topics. Organize working groups with the participants focusing on action
- not getting enough time to know other members better

One member noted the lack of hope and optimism among members. While another suggested further breaking down citizen/expert barrier by allowing experts to be seated within the groups. The lack of hope and optimism among members

Suggestions for improvement

- Method should be continued and spread wider to other topics like water and waste
- I do not think the CA should be restricted to a certain neighbourhood or topic
- The videos could have been closer to the reality of our everyday lives

What was the most important idea or insight you take away from the CA?

Since the evaluation survey was completed by members a few days after the CA finished, it was interesting that in order of mentions, the top three topics that people retained:

- The history of electricity and EDL in Lebanon
- How to improve energy efficiency
- What we can do as individuals
- That solar energy is cheaper and quicker than gas

Will you adopt new measures based on what you learned during the CA?

- **Behaviour change:** Definitely it started after the first session by discussing (the topics) with family and friends, as well as observing my behaviour towards electricity at work and at home
- **Solidarity:** I had lost hope in the community but after the CA I started believing in the community again and working towards spreading the idea of collaboration
- **Reducing energy consumption:** Dealing with energy as a thing that is perishable and the importance of using it efficiently and keeping available resources to make use of it

Many members said their main takeaway was that they should start with themselves and try to reduce their energy use as well as waste, having realised waste also causes a burden on energy supply

Do you think we should build on the CA on electricity in Hamra? Or do you think we should discuss other topics? What are these topics?

- I prefer we continue what we started to focus on it and develop it and fix it and not open up on another topic until this one is done
- the Issue of Electricity in Hamra is the same as the issue in Lebanon and if we succeed in this area we will of course succeed in country as a whole

The other topics suggested were water and waste.

Overall, the survey results suggest that the assembly pilot had impacted positively on assembly members' appetite and confidence to engage in political decision-making. 88% of assembly members 'strongly agreed' or 'agreed' that they 'feel more confident to engage in political decision-making as a result of being involved in this citizens' assembly.' The same percentage 'strongly agreed' or 'agreed' that 'taking part in this citizens' assembly has made me want to be more involved in other aspects of decision-making.

Participants' Evaluation Form: Summative Assessment	
	Average rating out of 10
Please rate the level of support that the organizers provided for you to attend the Citizens' Assembly from 1-10.	8.8/10
Did you watch all the videos?	100% said yes
How clear did you find the videos? Easy to under-stand (1) – Hard to Un-derstand (10)	8.9/10
How difficult was it to understand the provided ma-terials and information?	8.8/10
Do you think you had the chance to express your views?	8.7/10
Where did you prefer to express your views? Face to face / Online	27 said face-to-face One said online 3 said both
Did you have the chance to hear other member's views?	7.7/10
Please rate the overall atmosphere of trust in the Citizens' Assembly.	9.4/10
Please rate how comfortable you are with sharing your views during the Citizens' Assembly.	9.5/10
Please rate how much you understood the reasoning behind other participant's arguments.	8/10
Please rate how much you sympathize with other participant's views.	8.3/10
How much do you agree with the decision made by the assembly?	8.8/10

	% Strongly Agree/ Agree	% Neutral	% Disagree/Strongly Disagree	% No Answer/Don't know
I understand the electricity problem in Lebanon better	74%	10%	3%	13%
The topic was too technical and dif-fi-cult to under-stand	13%	10%	68%	10%
I gained confidence in discussing questions of electricity	84%	3%	0%	13%
I understand most of the key terms and ideas	81%	3%	6%	10%
I am prepared to participate in a citi-zens' assembly over more days	90%	3%	0%	6%
The CA had a clear purpose	87%	3%	0%	10%
I had sufficient time to discuss the problem online or face to face	58%	16%	10%	16%
All relevant groups in the community were represented	68%	23%	0%	10%
Everyone had equal opportuni-ty to speak	87%	3%	0%	10%
The CA was independent	81%	6%	0%	13%
I learned from the speakers and other participants in the process	81%	6%	6%	6%
I got a chance to hear and discuss various points of view	81%	6%	0%	13%
We took collec-tive decisions in a consensual and understandable way	84%	6%	0%	10%
I developed new contacts / access to new networks	52%	29%	6%	13%
I intend to col-laborate with people I met through the CA on new initia-tives	74%	10%	6%	10%
I would like to be part of future ses-sions of the CA	90%	0%	0%	10%
I would be happy to commit to a longer CA in the future	90%	0%	0%	10%
Maximum amount of sessions I am willing to commit to:	0%	0%	0%	32%
Maximum amount of days I am willing to commit to	11	29		
I would be willing to help organize a CA in the future	87%	0%	0%	13%

REFERENCES

Sovacool, B.K., Burke, M., Baker, L., Kotikalapudi, C.K., Wlokas, H., 2017. New frontiers and conceptual frameworks for energy justice. Energy Policy 105, 677–691. https://doi.org/10.1016/j.enpol.2017.03.005

List of Resources

All the resources produced for the CA are available on the RELIEF Centre website:
https://www.relief-centre.org/citizen-assembly#

Video presentations can be found on this YouTube channel
https://www.youtube.com/playlist?list=PL2HO5vKIqYUg_ZNoNSXE5x58qInYmv4tG

APPENDICES

Appendix 1. **Translation of the term "Citizens' Assembly"**

I. The term 'Assembly':

Variables to take into consideration:

- Is this permanent/long term meeting or a one/off short term one.
- The degree to which this meeting is structured
- The number of people attending

Translation	Dictionary definition and notes
مجلس	Literally this mean "council", and is for a more structured get together Now used by Ogarit Younan for something similar as المجلس المواطني Examples: مجلس النواب، مجلس الوزراء، مجلس الامن
ملتقى	Translated as Forum - Informal, brings people together but no decision making by necessity
منتدى	"جْلِسُ القَوْمِ نَهاراً، أو المَجْلِسُ ما دامُوا مُجْتَمِعِينَ فيه " Space for discussion / sounds academic or intellectual
لقاء	Come together, very broad.
عامية	مثل عامية انطلياس وفيها شيئ من التجمع الشعبي ومحاولة استرداد القرار Is it understood by non-Lebanese Arabic speakers?
مؤتمر	واسع الحجم، ومساحة لاتخاذ القرار usually term for a large conference Examples:المؤتمر العالمى الأول المعنى بالمرأة *مؤتمر* الأمم المتحدة الثامن والستين للمجتمع المدن
تجمع	
بوتقة	
منبر	More like platform – has some advocacy connotations
جمعية	Besides its use to mean "association" Examples: الجمعية العامة للأمم المتحدة (UN general assembly)
ممثلية	
هيئة	More permanent and smaller in size

II. The term 'Citizens':

أهلي	One way is to use it in conjunction with area, as in: منتدى أهالي الحمرا
مدني	
مواطني	
مواطنين	One concern of us then having to say ألمواطنين والمواطنات
المواطنية	
وطني	
سكان	

Appendix 2. **Assembly membership breakdown**

The total assembly membership was 33.

Gender	Nationality	Age	Hamra: lives or works	Profession	Education Level	Electricity: Generator/No Generator/ Off-grid
Male	Lebanese	Adult: 34	Work	Manager	BT3	Generator+EDL
Male	Lebanese	Adult: 57	Lives and works	Electricity Technician	Technical School	Generator+EDL
Male	Lebanese	Adult: 34	Lives	Accounting	BA	Generator+EDL
Male	Lebanese	Adult: 33	Works	Journalist (freelancer), Activist	Masters	Generator+EDL
Female	Lebanese	Adult:	Lives and works	Housewife		Generator+EDL
Female	Lebanese	Adult: 56	Lives and works	Eco Souk		Generator+EDL
Female	Lebanese	Adult: 29	Works	Coordinator	Masters in Urban Design and Planning	Generator+EDL
Female	Lebanese	Adult: 45	Lives and works	cashier + Al Roum hospital	BT3	Generator+EDL
Female	Lebanese	Adult: 32	Works	Manager		Generator+EDL
Male	Lebanese	Adult: 33	Lives and works	Plant Management (AUB, AUBMC)	Bachelor in Economics	EDL No Generator but small personal generator
Male	Lebanese	Adult: 26	Lives and works	Accountant, activist	Bachelor (energy)	EDL No Generator
Female	Lebanese	Adult:	Works	Ras Beirut High School Director		EDL No Generator
Female	Lebanese	Adult: 31	Works	Artist	Masters	EDL No Generator
Male	Lebanese	Adult: 37	Lives and Works	Digital Marketing / Media	Masters	Generator+EDL
Male	Lebanese	Youth: 21	Lives	student	Senior	Generator+EDL
Female	Lebanese	Youth: 21	Lives	student	masters	Generator+EDL
Male	Lebanese	Youth: 22	Works	Physic teacher: works from home	M1	OFF GRID (his own project)
Male	Lebanese	Elderly: 69	Lives	retired		Generator+EDL
Male	Non Leb:	Adult: 55	Lives and works	Building concierge		EDL No Generator
Male	Non Leb: Syrian	Adult: 29	Lives and works	Bar tender	license	EDL No Generator

Gender	Nationality	Age	Hamra: lives or works	Profession	Education Level	Electricity: Generator/No Generator/ Off-grid
Male	Non Leb: Syrian	Adult: 32	Lives	freelancer in civil community	University Bachelor in Engineering	Generator+EDL
Female	Non Leb: Syrian	Adult: 28	Lives	unemployed	Secondary School	Generator+EDL
Female	Lebanese	Adult: 39	Works	Journalist (freelancer), Activist	Bachelor Degree	Generator+EDL
Male	Non Leb: Syr	Adult: 28	Lives and Work	Bartender	University	Generator+EDL
Male	Non Leb: Syrian	Youth: 22	lives and works	Waiter		Generator+EDL
Male	non Leb: Syr	Adult: 26	Lives and Work	Electrician	Secondary School	EDL No Generator
Male	Lebanese	Adult: 38	Lives and works	entrepreneur	University	Generator+EDL
Male	Lebanese	Adult: 30	Works	Accountant		Generator+EDL
Male	Lebanese	Adult: 29	Works	Manager	LT	Generator+EDL
Male	Lebanese	Adult: 28	Lives	unemployed	Bachelor	Generator+EDL
Male	Non Leb: Syrian	Adult: 29	Lives and works	Manager	Bachelor Degree	EDL No Generator
Female	Lebanese	Adult: 50	Lives used to work	chef	brevet	EDL No Generator
Female	Lebanese	Adult:27	Lives	legal researcher	Masters	Generator+EDL
Female	Iraqi	Adult:40	Works	secretariat acct	bachelor and diploma	Generator+EDL

Appendix 3. **CA Agenda**

Appendix 4. **Energy efficiency session. Examples given to members to prioritise or to suggest alternative**

Home/Building	Neighbourhood/city	National/legislation
• Personal/behavioural changes (reduce use of electric heating/ cooling, change power bulbs, use the stairs, etc.) • Fit solar panels on as many build-ings as possible for water heating or electricity generation • Turn off then room lights when not in use; • Benefit from natural lighting in the house/rooms; • Use LED Light/CFL Light which are more efficient; • Use air conditioners equipped with inverters, and use them at higher temperatures to reduce consumption; • Use home appliances, such as the washing machine, at full load, and seek for more energy effi-ciency appliances; • Use light reflectors in buildings; • Use double glazed windows and walls to increase insulation and reduce heating/cooling; • Design windows/openings at roof-tops to ensure natural air flow;	• Explore neighbourhood/ city level renewable energy option to reduce reliance on generators • Encourage energy efficiency building renovations/recon-struction (especially post Beirut blast) • Implement awareness campaigns to reduce energy consumption • Plant more on rooftops/ empty spaces to reduce heat islands in cities, or use lighter colours on rooftops; • Put in place high energy-ef-ficient street Lighting/LED lighting;	• Law for energy efficient measures and sustainable buildings • Regulation to ensure Energy Efficiency in new buildings • Financial Incentives for the use/purchase of ener-gy efficient electric equipment • Increase the tariff on higher energy consump-tion • Support options for de-cen-tralized community renew-able energy pro-jects to for self-consumption • Seek pumped-hydro stor-age in elevated re-gions to reduce water pumping for energy effi-cient measures and sus-tainable buildings

Appendix 5. **Citizens' Assembly on Electricity project team: Biographies and roles**

Citizen Assembly organisational structure	
Delivery team Ala'a Shehabi Mariam Daher	
Advisory board Muzna Al-Masri – facilitator lead Marc Ayoub – session lead Jessica Obeid – session lead **Recruitment, energy data and vote counting** Maysa Jallad Assia Al-Harache	The advisory board is composed of academics, policy experts, and engineers. developed the key criteria for the selection of the expert/stakeholder panel to make sure there are a balance of viewpoints. It co-designed the agenda and participatory activities. It also put together the background material. This group work works with advisory board and is responsible for conducting the process of sampling and inviting participants. On the day to manage the voting process and providing results to oversight committee. To present the energy data from the Prosperity Index
Expert panel	These are a mixture of experts, stakeholders and rights-holders who brief the assembly on their perspective. They have been invited by the delivery team based on criteria set by the advisory board to ensure fair and broad representation of opinion. Contributions from experts, stakeholders and rights-holders can be made in the form of a talk in person, a recording, a written briefing, or they can be live streamed
Oversight panel on the day: Mona Hallak	The oversight panel is made up of experts in deliberative methods. The role of this panel is to monitor the whole process ensuring its compliance with standards.
Facilitator team Muzna Al-Masri – lead facilitator Nadine Mouawad Rana Hassan Hoda Barakat Samar Maqusi	These are professional facilitators who sit at each table with assembly members. The role of the facilitation team is to ensure that the deliberation is respectful and not dominated by a vocal few and that everyone has a chance to speak. The facilitators will not have the opportunity to voice their own opinion.
Media and comms team Design work – Leen Charafeddine Videographers – Tariq Keblaoui, Samer Beyhum and team Press and Social media – Kae Ohene-Yeboah **Evaluation team** **Angela Sa'ade** **Hanna Baumann** **UCL Evaluation Team support**	

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