

Project acronym: EnergyPROSPECTS

Title: PROactive Strategies and Policies
for Energy Citizenship Transformation

Grant Agreement number: 101022492

Deliverable 3.4

Training package and guidelines for in-depth data collection methodology

Description: Document summarising the methodology used for in-depth (detailed) case research, and providing the training materials for using the methodology.

Lead party for deliverable: GreenDependent Institute (GDI)

Document type: Report

Due date of deliverable: 30-06-2022

Actual submission date: 18-08-2022

Revision: Version 0.1

Dissemination level: Public

Coordinator: Edina Vadovics (GDI)

Authors: Edina Vadovics (GDI), Bonno Pel (ULB), Benjamin Schmid (NUIG), Marianna Markantoni (UM), Ariane Debourdeau (TUB), Adina Dumitru, Luisa Losada Puente (UDC), Rénatus Kemp (UM), Martina Schäfer (TUB), Manuel Peralbo, Nuria Rebollo, Juan Carlos Brenlla, & Manuel García (UDC), Kristóf Vadovics (GDI)

Reviewers: Frances Fahy and Rebecca Corless (NUI Galway), Desislava Asenova and Marko Hajdinjak (ARC), Karin Thalberg (JDI)



EnergyPROSPECTS partners

National University of Ireland, Galway (NUI Galway),
University Road, H91 TK33, Galway, Ireland



Université libre de Bruxelles (ULB),
Avenue Franklin Roosevelt 50-1050, Bruxelles, Belgium



GreenDependent Institute (GDI),
2100 Gödöllő, Éva u. 4., Hungary



Universiteit Maastricht (UM),
Minderbroedersberg 4-6, 6200 MD, Maastricht, Netherlands



Applied Research and Communications Fund (ARC Fund),
Alexander Zhendov Street 5, 1113, Sofia, Bulgaria



Notre Europe – Institut Jacques Delors (JDI),
18, rue de Londres 75009, Paris, France



University of Latvia (UL),
Raiņa bulvāris 19, LV-1586, Riga, Latvia



Technische Universität Berlin (TUB),
Straße des 17. Juni 135, 10623, Berlin, Germany



Universidade da Coruña (UDC),
Rúa da Maestranza 9, 15001 A Coruña, Spain



Acknowledgment: EnergyPROSPECTS is a Horizon 2020 project funded by the European Commission under Grant Agreement No. 101022492.

Disclaimer: the views and opinions expressed in this publication are the sole responsibility of the author(s) and do not necessarily reflect the views of the European Commission.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Table of Contents

| | |
|-------------------------------------------------------------------------------------------------------------------|----|
| SUMMARY | 5 |
| 1. INTRODUCTION: METHODOLOGICAL BACKGROUND | 6 |
| 1.1. The cases and data collection process in EnergyPROSPECTS | 6 |
| 1.2. Detailed case studies: Methodology | 8 |
| 1.2.1. Three research foci | 8 |
| Research topic 1: ENCI achievements | 9 |
| Research topic 2: Conditioning factors and intermediation | 9 |
| Research topic 3: Development over time | 10 |
| 1.2.2. Case selection | 10 |
| 2. The EP methodology for detailed case collection with guidance notes for case researchers | 11 |
| 2.1. Guidance for case researchers: How to find and document the information that we need? Research methods | 11 |
| 2.2. Basic information about the case | 14 |
| 2.3. Research topic 1: ENCI achievements | 15 |
| Achievements and goals..... | 15 |
| Reformative and transformative goals | 18 |
| Effective citizen control: democratisation of the energy system | 21 |
| Marginalised groups, poverty, gender, inclusivity | 23 |
| 2.4. Research topic 2: Conditioning factors and intermediation | 24 |
| Intermediation and intermediaries..... | 25 |
| Business and social innovation models..... | 29 |
| ICT..... | 30 |
| Relationship to government..... | 31 |
| Modes of empowerment..... | 33 |
| Further questions..... | 35 |
| 2.5. Research topic 3: Development over time | 36 |
| Changing Agency, Aims and ideal-types | 36 |
| Changing roles and transition contexts..... | 39 |
| 3. Training materials for using the methodology | 41 |
| 3.1. The programme of the training..... | 41 |



D3.4 Training package and guidelines for in-depth data collection methodology

3.2. Materials and activities used at the training 42

3.2.1. Training slides 42

 Part 1: Introduction and the detailed case collection task 42

 Part 2: The main research foci and the research questions 47

 Part 3: Introduction to the concepts underpinning the main research foci 48

 Part 4: Introduction to the data collection template 65

 Part 5: Detailed discussion of the data collection template 66

 Part 6: Timeline and working processes, closing 66

3.2.2. Piloting and standardisation 67

4. The process of detailed case collection in EP 69

5. Research ethics considerations 71

References 72

Annex I: Consent form 73



SUMMARY

This deliverable builds on and is a follow-up to [D3.3](#), ‘Case study data collection methodology’ (Pel et al., 2022). The two deliverables complement one another, and can be used as a two-part guidebook for researching energy citizenship through what we term in the EnergyPROSPECTS project as detailed case studies.

D3.3 focuses on the theoretical foundations of the EnergyPROSPECTS detailed case research including the methodological considerations. In addition, it provides the background for selecting the 40 cases for detailed study from the altogether 596 cases of energy citizenship the consortium mapped in a previous stage of the project. It also provides the list of research questions within the three main research themes (the achievements, conditioning factors and development of energy citizenship). Finally, it provides an overview of the planned outcomes of the detailed case research.

While D3.3 is in some respects more theoretical, the current document, D3.4, is about putting D3.3 into practice. Apart from presenting an overview of the case collection process, it provides the detailed template for case research, based on the questions listed in D3.3. As part of the template, it also gives guidance about the type and amount of information to be gathered by case researchers, including the methodology to be used. Finally, it also introduces the training materials the EnergyPROSPECTS team used for its internal training of case researchers, with the explicit aim of standardising the research and data collection process.



1. INTRODUCTION: METHODOLOGICAL BACKGROUND

1.1. The cases and data collection process in EnergyPROSPECTS

In the EnergyPROSPECTS (EP) project a **two-stage case collection and study process** was developed (Figure 1). The first stage of this process consisted of mapping energy citizenship (ENCI) in Europe through a desk-based research process (Vadovics et al., 2022). The overall aim of the mapping process was to identify the diversity of types and empirical manifestations of energy citizenship in Europe. Thus, the objective was not to be representative, but to discover and map the different types of ENCI in Europe.

In order to limit the vast variety of energy citizenship cases for the purposes of our research, the consortium decided at team workshops¹ that the ENCI mapping stage will cover cases that are

- **based in European countries** (including EU, EEA and accession countries);
- **currently active or were concluded no sooner than 2015** when the Energy Union Strategy was published.

This is because the focus in this research is not so much on the historical forms of ENCI, but rather its current forms and manifestations, and the differences between them depending on the political, socio-economic etc. characteristics of their context;

- **focused on direct energy production and/or consumption** (e.g. in households, organizations, etc.), **mobility** (with a direct connection to energy issues), or have a **more holistic overall focus on sustainable and just energy**.

This means that in EnergyPROSPECTS a decision was made not to study initiatives that focus solely on nutrition, for example. However, if nutrition is part of an overall strategy for energy use or carbon footprint reduction that also focuses on direct energy use, mobility etc., then the case could be included (see more details about the sampling strategy in [D3.1](#) (Vadovics et al., 2022)).

¹ see details in [D3.1](#) (Vadovics et al., 2022)



The outcome of this first case research stage is a **database of 596 cases of energy citizenship** that will be presented in an interactive online database as well as through analysis reports including country profile reports of EnergyPROSPECTS partners, and a variety of other publications.²

The second stage of the case research process comprises of detailed case research of 40 cases selected from the 596 mapped cases. Detailed information about both the selection process and the cases can be found in [D3.3](#) (Pel et al., 2022), and a summary is presented below in Chapter 1.2.

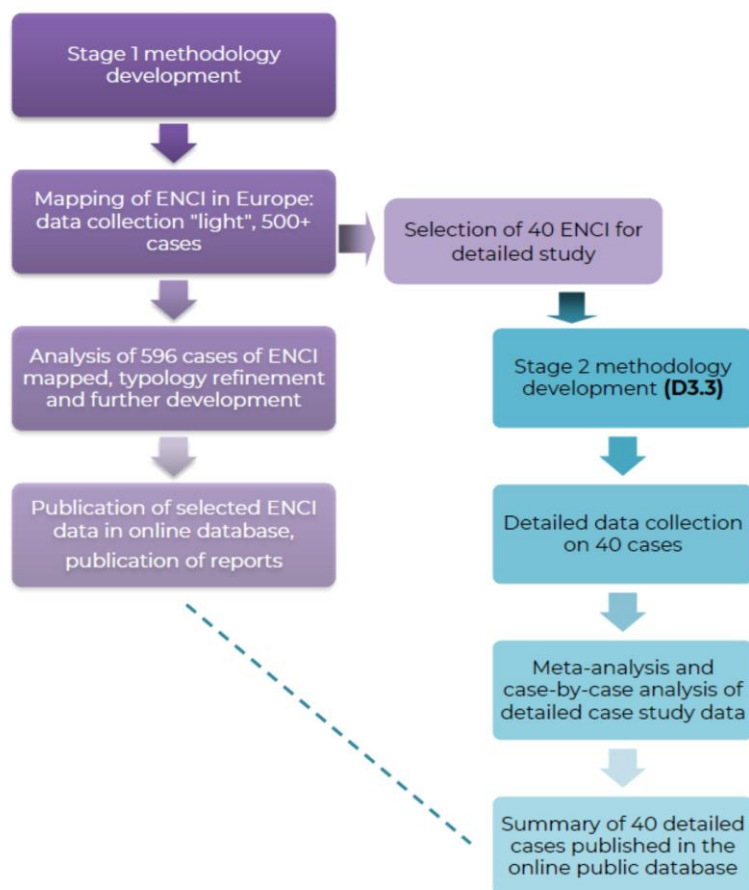


Figure 1: The two-stage case research process in EnergyPROSPECTS

² A summary blog can already be read about the ENCI mapping process at <https://www.energyprospects.eu/news/blog/mapping-cases/>

1.2. Detailed case studies: Methodology

As detailed in EP Deliverable 3.3 ([D3.3](#), Pel et al., 2022), the methodology for detailed case collection has been developed to accommodate and integrate a range of research interests and methodological requirements. The methodology has been guided by the following key considerations:

- The (comparative) analysis of the 40 in-depth cases should **deepen** the analysis of the 596 cases gathered in the WP3 **empirical mapping**.
- The methodology should facilitate formalisation of qualitative data and subsequent **Qualitative Comparative Analysis (QCA)**. Investigating conditions conducive to somehow ‘successful’ energy citizenship (ENCI), QCA is an important part of the project. It sets methodological requirements of comparability, diversity (of explanans and of explanandum, Cf. case selection below) and calls for empirical data on ‘success’/achievements and conditioning factors.
- The methodology should **cover key research interests of different Work Packages** (namely WP2-6³), to ensure synergies with these WPs and to mobilize capacity for empirical analysis and empirically informed theorization.
- **Case selection** should ensure **accessibility** of cases and **interest** of researchers (through a process of nomination), whilst meeting criteria of **theoretical relevance** (cases being informative on chosen research foci) and **methodological appropriateness** (allowing for QCA analysis, see further below).

1.2.1. Three research foci

The questionnaire or case research template (Cf. sections 2.2-2.5 below) was built

³ Please visit the project website for the summary description of WPs at <https://www.energyprospects.eu/about-the-project/work-packages/>

up along three research topics. These three research foci express how many of our empirical questions on ENCI hang together. Especially the methodological requirements for QCA have helped to structure the case research: They inform the first two of the three key research topics: 1) ENCI achievements; 2) the underlying conditions, intermediaries and empowerment and 3) changes in ENCI over time.

Research topic 1: ENCI achievements (see section 2.3, questions 1–15)

For the QCA (WP4) it is essential to establish ENCI achievements. It is important in this regard to ensure case diversity in terms of ‘negative’ and ‘positive’ cases, and to analyse subsequently which configurations of conditioning factors make the difference. Achievements need to be observable and precise (no abstractions like ‘empowerment’ or ‘justice’, but more concrete manifestations and indicators of these). They should be assessed similarly across cases. Apart from the formal assessment of greater and lesser achievements, we will also unpack the achievements in more qualitative detail – in WP2 we considered ENCI as a crossroads of political ideals, involving normative commitments to environmental sustainability, inclusion, social justice, amongst others (Pel et al., 2021). This qualitative deepening of achievements pursued by ENCI initiatives – including the dilemmas, trade-offs and the politics – meets research interests of WP2 as well as WP6.

Research topic 2: Conditioning factors and intermediation (see section 2.4, or questions 16 – 26.)

This topic aims to identify conditioning factors for more and less ‘successful’ ENCI, the ENCI achievements specified in topic 1. These conditioning factors will be analysed through the QCA analysis (WP4). Many kinds of conditioning factors can turn out to be relevant. We pose open questions, but also verify the relevance of particular conditioning factors – notably those on intermediaries, business models and social innovation, and ICT (WP4), and on the empowerment of individuals involved in ENCI processes (WP3/empowerment toolkit). These insights on conditioning factors can eventually be linked to the analysis of (remote) conditioning factors in WP5 (PESTEL analysis). Indicating relevant barriers and levers, these insights on conditioning factors will also form important

inputs for policy advice (WP6).

Research topic 3: Development over time (see section 2.5, or questions 27 – 32.)

This topic addresses the important fact that ENCI initiatives/individuals change over time. These insights complement the relatively static mapping of ENCI cases (WP3). Considering that development over time also comprises questions of choices and strategy, this topic is relevant for the development of policy advice as well (WP6). Most importantly, these questions help to deepen our conceptualisations of the various ‘manifest’ and ‘latent’ ENCI categories/types (WP2): Active ENCI may have evolved from activation processes out of earlier passivity, individual ENCI may have turned into more collective ENCI (Pel et al., 2021), earlier ‘frontrunners’ may have evolved into other roles in the course of energy transition processes. Furthermore, ENCI initiatives may go through different phases and develop characteristics of different ENCI ideal-types or combinations of ideal-types (e.g. from reformative to transformative, Cf. Debourdeau et al., 2022). The questions on change-over-time dynamic analysis help to deepen our conceptual ENCI typology.

1.2.2. Case selection

As specified in deliverable 3.3 (Chapter 4, see [D3.3](#), Pel et al., 2022), the set of 40 cases has been selected through a 3-step process primarily to support systematic comparison of (greater and lesser) achievements and of conditioning factors. Half of the cases had to meet a set of requirements set by the QCA methodology. This sub-set of cases was restricted to

- ENCI ideal-types 7 and 8 (typologised as “citizen-based and hybrid” during the mapping stage);
- Cases comprising a diversity of evaluated “high”, “medium” or “low” evaluations (but not “n/a”, etc.) on ‘achievements’ related to citizen power during the mapping stage;
- Currently active cases, starting no later than 2020.

2. The EP methodology for detailed case collection with guidance notes for case researchers

In this chapter the overall guidance for case study researchers is presented initially, followed by the questionnaire or case collection template itself, including further guidance for responding to each question. For easier overview and reading, the template has been organised into sub-chapters based on the main research foci presented above (see section 2.3 – 2.5), preceded by some introductory questions in section 2.2. The questions and text in sections 2.2 – 2.5 is identical to the one used by case researchers. In addition to the research questions in 2.2 – 2.5, section 2.1 includes the guidance notes for case researchers.

2.1. Guidance for case researchers: How to find and document the information that we need? Research methods

First of all, please study the **data available on the case from the ENCI mapping survey**. This should also include references, and links to additional materials.

Then, we suggest that you undertake **document research** (e.g. website of case, founding document, other programmatic materials, evaluation reports, annual reports, research reports, media articles, etc.).

Based on these, i.e. the information from the mapping stage and document research, please **fill in as much information as you can in the research template below**. Meanwhile, also **identify questions for which you do not yet have enough information** about, and those for which you need confirmation of the data you found from someone closely involved with the case.

With these in mind, plan your **interviews** with case owners/participants in order to fill in the identified information gaps as well as to confirm (some of) your findings. This way you can use the interview(s) to expand on what you first learnt



through the documents, and at the same time ensure that we are not asking too much from our interview subjects, who will be donating their time voluntarily to our research. Please see more guidelines about interviews below and at the specifics Qs.

Finally, **review what you have, and go back to the documents for specific pieces of information, and/or confirm through email** or the preferred way of communication of your interview subject(s), always aiming for least effort required by interview subjects.

Please remember to document everything:

- ask all your interview subjects to fill in and sign a **consent form**⁴ BEFORE you start the interview (available in the shared database on Teams);
- save your consent forms electronically, you can also upload it to Teams, along with your other case-related documents;
- collect all references, including non-academic (e.g. media articles);
- note down or copy out quotes to illustrate your findings;
- save pictures (provided they are public or you have agreement of those who own the pictures), please see more detailed instructions on saving pictures below;
- save any other interesting stories, press articles, etc. that you find relevant and interesting.

Please save your work on Teams, creating a sub-folder for each of your cases.

And once you have collected all data in your Word template stored on Teams, you will be asked to **transfer it to the same template in Survey Monkey**, in preparation for analysis and the creation of case reports.

Remember that **not all questions/parts of questions may be relevant for your case**, not all cells of the tables provided could be filled in, etc. This is OK, so do not feel pressured by seeing empty spaces or cells.

⁴ Please see the Consent form in Annex I.

INTERVIEWS

- Interviews, or rather, interview questions, will basically be of two different kinds:
 - 1. Those where you will be seeking confirmation or expansion of your findings;
 - 2. Those where you will be seeking information that you cannot find or cannot have from anywhere else. For this type, you will find more instructions with the Qs concerned.
- Questions where you need to make an interview are marked accordingly, i.e. you will find more instructions there;
- As a general principle, considering resource limits, we are aiming to **limit interviews to max. 3 / case**;
- Also as a general principle, we are only interviewing case participants, possibly at different levels (e.g. management and general participant), but our aim is not to interview people external to the cases;
- Please **record your interviews**, and make sure to store the recording safely, in accordance with GDPR principles (e.g. not in your personal Google folder, but on space owned by your organisation), and keep it for future reference. Please note that **it is the responsibility of the case researcher, and the project partner he/she is employed by, to store the recording in compliance with GDPR principles**.
- There is no project requirement to prepare **interview transcripts** or translations, so unless your own organisation requires it, you do not need to do this. However, please note that we are asking for quotes to support your responses to the questions, so for the **quotes** you will need to transcribe/translate the appropriate section of the interview.
- **How to communicate with your interview subjects?**
 - Inform about project, aim of interview (use project flyer)
 - Ask about preferred way of communication (online, in-person, email)
 - Agree on time required for the interview with interviewees prior to the interview and stick to it
 - Send and then sign the **consent form prior to the interview**
 - Provide guiding questions a few days before the interview
 - If appropriate, take a small **thank-you present** (something related to sustainable energy)
Please note that each partner has a **budget specifically to support the case research process and interviews**, incl. travel costs, etc. Part of this budget can be used to purchase thank-you presents, in compliance with your organisation's purchasing regulations as well as aiming to buy presents that are in line with the philosophy and principles of our project (i.e. they are sustainable).
For example, at GDI we will purchase vouchers to a verified online green shop that also sells products and reading materials related to

sustainable energy use. This way we will provide something sustainable at the same time make sure that the interview subject does not receive something unnecessary.

- Ask for suggestions for other interview partners if the contacted person is not available
- Thank you for interview
- Invite to follow project: subscribe to newsletter, follow social media, follow (local) website, etc.
- Invite to comment on case study report when available (spring 2023)
- **Provide feedback about interview:** inform when case report is published, when case database is published, when events are happening, etc.

PICTURES

- Please provide good quality pictures to illustrate how the case works, how it supports ENCI, etc., so pictures that help characterise the case.
- Please include the picture:
 - in your case template so that we know what it illustrates,
 - and also save it as a picture file (e.g. jpg, gif, png, etc.) in your case folder.
- When saving as a picture file, please name the case using the case name, and number of the picture (e.g. Cargonomia_pic1.jpg)
- Please make sure that you have the right to use the picture:
 - either you found it online, publicly available, or
 - you got permission to use it from the case owners. In case of the latter, please save the permission with the picture (this can be an email in which the owner of the picture says that you can use the picture).

2.2. Basic information about the case

Name of case in English:

Name in original language:

Website:

Contact information (email):

Start of case (yr):

Ongoing? Yes / No / Dormant

Name of case researcher:

Contact of case researcher (email):



2.3. Research topic 1: ENCI achievements

The main research question related to the ENCI achievements is:

What do the relevant actors (i.e. the actors involved in the case) think they have achieved through the ENCI case under investigation?

Please summarise your findings in no more than 30-40 lines about this main research question once you have answered all the questions in this section:

Achievements and goals

1. ***What do (did) the actors want to achieve⁵ through the ENCI case they are/were involved in?***

Please list the 3 most important goals the ENCI actors want to achieve (a list of short sentences are suitable):

- 1.
- 2.
- 3.

Please provide an explanation for these, and add any other goals (if relevant) in max. 10-15 lines.

2. ***What are their short-term, mid-term and long-term goals they want to achieve (if any and if relevant, i.e. some cases may not specify goals in terms of being short/mid/long-term)?***

Please list max. 3 per each short/mid/long-term goals in the space provided (if relevant). Some of the goals here can be the same as those listed in Q1.

⁵ Examples of achievements: ENCI actors may feel the need to achieve, 1) a more democratic energy decision-making and greater community ownership of a decentralised energy system; 2) influence thinking and decision-making in national, local and regional political sites as part of their goals and aims; 3) influence regulations on sustainable energy; 4) ability to received support from government, (5 professionalization of activities; 6) manage to get funding from commercial banks; 7) strike deals with grid operators; 8) counteract fuel poverty; 9) increase employment opportunities at the local and/or regional level; 10) reduce the environmental impact of energy consumption and production beyond climate goals, incorporating other resource and ecological limits considerations; 11) just access to and distribution of energy.

| Period | Short-term | Mid-term | Long-term |
|--------------------------|------------|----------|-----------|
| Goals (max. 3/period) | | | |
| Comments (if any) | | | |

3. Is the case considered to be successful (in terms of the indicated kinds of achievements) or not successful (according to actors closely involved with the ENCI case, and/or according to outside observers)?

For the 3 achievements that you described above at Q1 and/or Q2, please fill in the following table. Under comments in the last column please explain your evaluation.

Please note that "successful" does not necessarily mean that an achievement has been completed to the point where it is no longer pursued; it can also mean that such an achievement is successfully being pursued on an ongoing basis.

| Planned achievements (as in Q1 and/or Q2) | Opinion of case participants: | Opinion of outside observers (E.g. in research reports, media articles, etc.) | Comments/explanation for your selection |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful <input type="checkbox"/> cannot be determined | |
| 2. | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful <input type="checkbox"/> cannot be | |

| | | | |
|----|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | | determined | |
| 3. | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful | <input type="checkbox"/> successful <input type="checkbox"/> not successful <input type="checkbox"/> partly successful <input type="checkbox"/> cannot be determined | |

4. What are the three greatest/main achievements of the ENCI case/the individual actor in the case under study? And why?

Please list the 3 main achievements (they could or could not be the same as the achievements originally planned, see Q1 and Q2).

- 1.
- 2.
- 3.

Please explain briefly in max. 10-15 lines why these are the main achievements, in whose view, and whether they are the same as the ones originally planned (vs. Q1 and Q2).

5. Which of the hoped-for achievements have the ENCI actors/case not managed to make? And why?

Please list the un-fulfilled achievements based on your responses to Q1-3 above. Then please explain briefly why the case actors did not manage to achieve something that was planned. Use cc. 15 lines for your response.

6. Do/did the actors envision and pursue a more democratic energy future?

First, please select the level of energy democracy pursued:

1. **Not a goal:** energy democracy has not been among the aims of the case.
2. **It is not so important:** energy democracy is considered as a positive value as such, yet the case activities and visions do not really address issues related to energy democracy (whether in terms of democratic participation, inclusive, deliberative and transparent decision-making processes, compulsory and effective decisions).

3. **It is important but limited to formal issues:** energy democracy is considered as a positive value that the case intends to support by increasing democratic participation of citizens and improving inclusiveness. Yet, the democratic energy future envisioned remains limited to formal energy democracy (democratic procedures or declaration regarding energy justice).
4. **It is core concern:** a more democratic energy future is a core concern of the case, and parts of its vision. The case aims at promoting an effective democratisation of the energy system by putting it in citizens' hand, and intends to implement concrete actions to improve access and inclusivity to self-governance.

Then, please explain your selection briefly, in cc. 10 lines, and describe how the case wants to (or does not want to) achieve a more democratic energy future.

Please note that Q10-12 below explore further perspectives of this Q, so you may split your response between the questions if needed, using cross-referencing if needed.

7. Which, if any, democratic deficits in the energy system do the actors in this case perceive as driving their activities?

Please respond to this question based also on your responses to Q6, as well as Q1 and Q2.

Reformative and transformative goals⁶

8. In which respects do (did) the actors in the case pursue goals that do not require fundamental change and do not basically challenge the current energy system (i.e. have reformative goals)? And in which respects do they challenge the current system (i.e. have transformative goals)?

In your response please make sure to consider the goals listed in Q1 and Q2.

Please note that in Q9 we are asking for specific details related to

⁶ **Reformative:** incremental socio-technical change, low energy democracy, shallow environmental sustainability (see more details in [D2.2](#), pg. 29.)

Transformative: radical socio-technical change, high energy democracy, deep environmental sustainability (see more details in [D2.2](#), pg. 29.)

reformative/transformational goals, so if necessary, please cross-reference your responses.

| | Goals that do not challenge the current system (reformative) | Goals that challenge the current system (transformational) |
|-------------------|--------------------------------------------------------------|------------------------------------------------------------|
| Goals | | |
| Brief explanation | | |

9. **How important are goals of equity and justice (A), environmental sustainability (B), staying under the 1.5 C target of the Paris Agreement (C) and other ecological limits (D)? Please respond to these sub-questions from your point of view as researcher.**

9.A In terms of equity and justice, please indicate the level of equity/justice pursued, as they are defined in [D2.2](#) (pg. 31.):

1. Equity and justice issues are **not relevant** to this case in the sense that they are not addressed by case goals or activities.
2. Justice or equity are essentially out of scope, or restricted to equal access to markets
3. Equal access is granted to all concerned citizens, but the framings tend to limit them to a certain geographical area or amount of financial contribution, which does not guarantee “real” equity.
4. Involvement is fully open, without specific belonging conditions. Issues such as energy poverty, gender and inclusivity are taken into account and foster adaptive measures to guarantee more equity.

Please explain and illustrate your selection briefly, in cc. 5-8 lines, using concrete evidence from the case wherever possible (e.g. examples of activities, numbers illustrating related achievements from reports, pictures, etc.)

9.B In terms of environmental sustainability, please indicate the importance thereof, based on the definition of various levels of environmental sustainability in [D2.2](#) (pg. 31.):

1. Environmental sustainability issues are **not relevant** to this case in the sense that they are not addressed by case goals or related activities.

2. Environmental sustainability issues are mostly seen as self-evident and not explicitly taken into account. In the lowest forms, environmental sustainability tends to be dealt with as a positive or negative externality.
3. Environmental sustainability is part of the process or case, but this concern is addressed in a superficial (non-radical) way (focus on efficiency strategies) and without dedicated assessment. Energy remains the main focus.
4. Environmental sustainability is a core issue, and it is even considered in goal setting, which is followed with a holistic strategy (mix of efficiency, consistency and sufficiency measures). Its assessment through indicators is seen as desirable.

Please explain and illustrate your selection briefly, in cc. 5-8 lines, using concrete evidence from the case wherever possible (e.g. examples of activities, numbers illustrating related achievement from reports, pictures, etc.)

9.C Does the case recognise environmental limits and openly talk about a sustainable carbon footprint that is necessary to reach the 1.5 °C target?

1. Related to the case concerning case goals and activities, there is **no recognition** or mention of the ecological limit of atmospheric carbon emissions and/or reaching the sustainable carbon footprint.
2. **Implicit recognition:** there is no explicit mention of the ecological limit of atmospheric carbon emissions and/or sustainable carbon footprint. But despite the lack of formal references to either of them, the case is involved in activities to reduce the consumption and/or emission of carbon.
3. **Explicit recognition:** the ecological limit of atmospheric carbon emissions and/or sustainable carbon footprint is mentioned in core case documents and the actors involved in the case are clearly engaged in attempts to reduce consumption and/or emission of carbon.
4. **Explicit recognition with mention/objective of reaching the max. carbon footprint:** in addition to mentioning the ecological limit of atmospheric carbon emissions and/or sustainable carbon footprint, the maximum sustainable carbon footprint and/or emissions are also defined.

Please explain and illustrate your selection briefly, in cc. 5-8 lines, using concrete evidence from the case wherever possible (e.g. examples of activities, numbers illustrating related achievements from reports, pictures, etc.).

9. D Does the case mention and/or recognize any other ecological limits (e.g. biodiversity loss, deforestation, freshwater use, chemical pollution, etc.)? Please fill in the table below as relevant, adding more rows if needed.

| Which ecological limits are recognised? Please list, putting 1 limit/row. | Please explain briefly how the limits are recognise, using concrete evidence and examples from the case. |
|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| | |
| | |
| | |
| | |

Effective citizen control: democratisation of the energy system

This block addresses the question whether the case does (did) exhibit strong elements of effective citizen control and connected to that whether and how the case makes achievements towards a democratisation of the energy system.

10. Does the case contribute/make achievements to the democratisation of the energy system? If yes, how?

Please list the ways in which the case contributes to the democratisation of the energy system. Briefly elaborate on how this is manifested in the case and add some quotes if possible. You do not need to provide an answer for each “how”, only where it is relevant for your case.

| How | Briefly explain how this is manifested in the case | Illustration / quote (from interview or document analysis) |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|
| <i>... by enabling or expanding individual/collective ownership of energy infrastructure</i> | | |
| <i>... by initiating and/or participating in public decision-making processes</i> | | |
| <i>... by making its voice heard in the public debate</i> | | |
| <i>... by providing a forum for deliberation on energy</i> | | |
| <i>... by improving accountability in energy sector and governance</i> | | |
| <i>... other, please specify:</i> | | |

11. How does the internal governance/decision-making within the case relate to its contribution to the democratisation of the energy system?

Describe your findings in cc. 10-15 lines addressing the following three aspects:

1. In which ways do citizens (or different groups of citizens) participate in different types of internal decision-making in this case?
2. How are those decisions taken? Is this process open and deliberative and how do actors in the case deal with issues for which they cannot reach consensus on (e.g. use voting or defer decision-making)?
3. Are decisions that are based on citizen votes compulsory and perceived as being meaningful/effective?

12. ***Does (did) the case exhibit strong elements of effective citizen control?***

You already answered this question in the mapping of this case. Based on the deeper insights into the case that you have now gained, please make the assessment again.

1. **No** effective voice citizen power/control
2. **Low level:** when expressed (e.g., within “invited” deliberative processes), citizens’ voices remain hardly heard or taken into account. Being a minority, citizens’ voices do not really count or in a voting process, the framings tend to limit the possibility of expressing an opinion.
3. **Medium level:** citizens can express their views, but their voices are not compulsory (within deliberative, representative or consultative processes). Within organised / participative structures, citizens remain a minority group, i.e., unable to impose their views to other groups.
4. **High level:** citizens exert the effective control, and their votes are mandatory. This governance takes place mostly in an “invented” process (as opposed to “invited” ones by Radtke et al., 2020). Citizens represent a majority group, empowered enough to control the process, and thus make their voices predominant.

Marginalised groups, poverty, gender, inclusivity

13. ***How does (did) the case take into account poverty, gender, marginalised groups and inclusiveness issues?***⁷

Please elaborate in cc. 15-20 lines, considering issues of energy justice, including global energy justice with consideration of disadvantaged groups in North and

⁷ There have been critiques of ENCI reproducing various power inequalities in society, and neglecting various marginalised groups. Attentiveness to marginalised groups is very important, as outlined in D2.1 and early WP6 proceedings.

South and/or future generations, access to affordable energy and inequalities in terms of climate vulnerability (e.g. rural/remote locations)⁸

Please note that this Q may be related to Qs 1-2, 6, 9, 10-12, as well as Q14 and Q15 below, so you can include references between the Qs in order to avoid repetitions.

Please make sure your responses to these questions are harmonised.

14. In which way do the actors in the case see themselves as responsible/accountable for such concerns?

Describe in cc. 8-10 lines whether and how actors in the case see themselves as responsible and/or accountable for concerns related to poverty, gender, marginalised groups and inclusiveness issues. Provide the rationale given for this by these actors.

15. What requirements, if any, must be met to become a member/part of the organisation/case?

Describe in cc. 8-10 lines what criteria a person needs to satisfy to become a member/participant in this case. You can check foundation documents and similar legal papers, which usually need to be public. Furthermore, discuss whether these criteria have been designed with consideration for facilitating or not unduly hindering access for citizens in conjunction with poverty, gender, marginalised groups, etc.

2.4. Research topic 2: Conditioning factors and intermediation

The central research question of this research topic is:

Why (and under which conditions⁹) do cases of energy citizenship achieve their goals and make achievements towards the democratisation of the energy system?

⁸ Some examples of inclusion of marginal groups are: Reduced membership fees, lower share of prices for vulnerable groups; targeted information and engagement activities; member diversity; energy efficiency services targeted at vulnerable groups; lower energy tariffs for vulnerable groups; knowledge about energy vulnerability, poverty, the preferences, needs and living situations of vulnerable and energy poor households; engagement with energy vulnerable and poor households; addressing energy poverty in organisational statutes (Hanke et al. 2021).

⁹ Conditions or causal factors why ENCI cases achieve their goals and make achievements towards the democratisation of the energy system might due to: 1) intermediation, 2) certain types of business and/or social innovation models, 3) ICT-technologies, 4) relationship to government or government-like organisations, 5) modes of empowerment. Below the empirical questions are elaborated under these themes.

Please summarise your findings in no more than 30-40 lines about this main research question once you have answered all the questions in this section:

Intermediation and intermediaries

16. *What type of intermediation is (or has been) needed so that the case can achieve its goals, and what sorts of intermediary actors/organisations are (have been) part of (or conveying) this intermediation?*

To answer these questions, please fill in the table provided. It is entirely possible that your case will not have all the different types of intermediation listed: just fill in the rows that are relevant to your case.

This question will possibly require expansion/elaboration through an interview.



D3.4 Training package and guidelines for in-depth data collection methodology

| Type of intermediation | 1. Was this type of intermediation needed in the case? If yes, please name the intermediary that provided it. ¹⁰ | 2. If yes to 1., what kind of intermediary provided it? Please refer to the <i>Table below this one</i> for categories. | 3. If yes to 1., how important was the intermediation? high medium low ¹¹ | 4. Brief description of intermediation and its results (e.g. was it satisfactory?) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| a) Management and organisation intermediation (Structuration and organisation of the functioning of the case: entities composing the case, legal status, coordination of the various activities (capacity building, energy production retail, etc.), negotiating with administrative authorities, etc.) | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |
| b) Financial and funding intermediation (Capitalisation and resource mobilisation required for the case to build up and sustain/grow) | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |

¹⁰ If this type of intermediation would have been needed but has not been actually provided (potentially as a factor preventing the case from being more successful), please note this as well in your answer to this question.

¹¹ **High:** the intermediation provided is/was determinant for the case setup, operation and goal achievement. In the absence of the intermediation/intermediary, the case would be radically different or it would even not exist as such.

Medium: the intermediation provided played an important role in the case set up and goal achievement, yet it does/did not condition its existence. Alternative intermediation or intermediaries would have been possible without affecting the case.

Low: the intermediation provided is/was helpful in the case set up and goal achievement, yet the intermediation and/or the intermediary cannot be considered as necessary or as conditioning the existence of the case. In the absence of the intermediation/intermediary, the case would have been more or less the same.



D3.4 Training package and guidelines for in-depth data collection methodology

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------|--|
| <p>c) Networking and coordination intermediation (All networking activities with actors that present similarities with the case, enabling cooperation between actors, building and managing networks of multiple stakeholders, exchange of knowledge and visions)</p> | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |
| <p>d) Information and communication intermediation (Communication activities making the case public: consult demand-side for implementation, mediation activities, put suppliers in contact with end users)</p> | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |
| <p>e) Technic and scientific intermediation (Technical and scientific expertise activities for concretising the project: ICT conception, planers, architects, PV or wind power specialists, monitoring of the project, facilitating experimentation and pilots, facilitate/support adoption and implementation of innovations etc.)</p> | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |
| <p>f) Legal/regulatory and institutional (lobbying) intermediation (Lobbying activities, protest against law projects)</p> | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |
| <p>e) other: please specify</p> | | | <input type="checkbox"/> high <input type="checkbox"/> medium <input type="checkbox"/> low | |



| Table for categorising responses to question 2. in the table above: Intermediary actors that are part of this intermediation | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Commercial intermediaries (For knowledge-intensive business services: banks who offer loans, mortgage, consultants, business lawyers etc.); | d) Non-government (collective) intermediaries (sector organisations, (e.g. REScoop), civil society umbrella organisations (e.g. transition towns); |
| b) Governmental intermediaries (i.e. intermediaries created by government): agencies that manage programmes with loans and technical assistance); | e) Other civil society organisations acting as intermediaries (Not created explicitly to be intermediaries, non-sector or umbrella organisations); |
| c) Educational intermediaries (Independent research and education organisation or networks); | f) Intercessors (Individuals who talk to different actors with the aim of learning about possibilities for collective action, cooperation, partnerships, institutional change ... by learning about the beliefs, material interests, mandates, responsibilities, capabilities and resources of specific actors). |
| e) other: please specify if you select this category | |



Business and social innovation models¹²

17. *What, if any, is the business and/or social innovation model of the case and how does (did) it enable the case to achieve its goals and/or to self-sustain?*¹³

Describe the current business and/or social innovation model of the case providing details in the table. Please note that your case may not have all the different types of models, or may not have any such models, so just fill in the rows that are relevant.

| The type of business and/or social innovation model, related to: | Description of the business and/or social innovation model | Role in the achievement of goals and self-sustainment |
|----------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|
| Organisational (legal) form(s) and entities | | |
| Partnerships and key stakeholders | | |
| Financial inputs/outputs, repartition of costs and benefits, funding | | |
| Social and environmental values | | |
| Other, please specify: | | |

18. *How have these models changed/evolved over time to enable the case to survive/operate in the longer run?*

Describe in cc. 15 lines how this model changed over time detailing which components/aspects of the model changed and how it impacted the organisational and/or financial structure of the case and especially its capacity to last over time.

¹² Business or social innovation models consist here of 'new/alternative forms of organization'. Please refer to D2.1 for further details.

¹³ Examples can be: a case with 100% community ownership, or a public-private partnership, as a type of model, enable the case actors to achieve their goals? And why? Or: the organisational maturity that might enable ENCI activities, suitable legal organisation structure of the case study to foster ENCI specific activities, political and environmental changes, changes in public funding, short-term funding that supports ENCI.

ICT

19. ***Do (did) specific types of ICT¹⁴ help/enable the ENCI case to achieve its goals and how? What type of ICT technologies are (would) be required so that the case actors can achieve their goals and how?¹⁵***

| Types of ICT used Please select the ones that are relevant. | Details about the ICT technologies used Regarding the specifications / algorithms / architecture, conception and functioning, etc. | How did these ICT technologies help/helped the case achieve its goals? |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Community self-consumption | | |
| <input type="checkbox"/> Peer-to-Peer energy trading within communities | | |
| <input type="checkbox"/> ICT platform (Energy Management System – EMS) | | |
| <input type="checkbox"/> Demand-response | | |
| <input type="checkbox"/> Decentralising trading platform e.g. Blockchain | | |
| <input type="checkbox"/> Aggregator of flexibility | | |
| <input type="checkbox"/> Smart grid | | |
| <input type="checkbox"/> Digital smart meters | | |

¹⁴ Some ICT case examples: community self-consumption platforms, peer-to-peer energy trading within the community, ICT - Energy Management System, decentralising trading platform - blockchain, digital smart metering, aggregator of flexibility.

¹⁵ Examples of how an ICT technology can help cases achieve their goals can be: 1) Through dedicated algorithms on a fair allocation of value; 2) Dedicated support networks to incorporate ENCI in (new) ICT technologies; 3) Through transparent and fair rules on designing ICT technologies together with citizens and their needs; 4) Making ICT platforms user and citizen centred; 5) Increasing scale of the ICT technology by working together with citizens (or energy communities); 6) Apply real time energy prices; 7) New ways for enabling neighbourhood batteries; 8) Simplify collective-citizen energy storage systems that are not located 'behind the meter' of households.

| | | |
|--------------------------------------------------------|--|--|
| <input type="checkbox"/> Virtual Power Plant | | |
| <input type="checkbox"/> Other, please specify: | | |

Relationship to government

20. *How is (was) the ENCI case supported or hindered by policy frameworks and market regulations?*

As a first step, please select 4 of the most important policy frameworks or market regulations that have affected (supported or hindered) your case (they do not have to refer to the 4 rows of the table below, they can be all national, or all EU, as relevant for your case).

Then, please describe them in the table, including how the actors involved in the case see their activities being affected by energy system and market regulations. Distinguish between different levels of government as the rows of the table suggest.

Please note that this question connects to the PESTEL analysis we are doing for different levels of government (EU, national). So, please make sure to communicate with your colleague responsible for the PESTEL to make sure that there is an information exchange between the tasks.

| Levels of government | Benefit from support measures | Other supporting effects of energy regulations | Hindering effects of energy regulations |
|------------------------------|--------------------------------------|-------------------------------------------------------|------------------------------------------------|
| National | | | |
| EU | | | |
| International | | | |
| Other, please explain | | | |

21. *How does (did) engagement in ENCI in the case relate to local/regional government? Please pay particular attention to i) the organisational and personal ties, ii) whether and how the actors in this case are part of, cooperate with and/or are supported or hindered by*

local and regional governments, and iii) whether and how the case provides an essential energy-related services to them.

Please describe in 10-15 lines how ENCI activities and actors in the case relate to local and regional governments. As a first step, address whether and how the case involves organisational linkages with local and regional governments.

As a second step, in cc. 15 lines:

- If the case is mainly **located within governmental institutions**, describe how the case is organised and governed within administrative departments.
- If the case is mainly **outside government institutions**, describe what personal relationships or overlaps exist between the case and local/regional governments, how the case is supported or hindered by local/regional governments, whether and how there has been cooperation, mutual disregard or conflict between case actors and local/regional governments, and whether and how the case provides an essential energy-related services to them.

Please include in your discussion 2-3 quotes from the interviews or document analysis that support your conclusions.

Please note that this question connects to the PESTEL analysis we are doing for 2-3 local levels of government. If the case involves a municipality/local context that is also analysed in these local PESTEL analyses, please refer to the PESTEL analysis findings here as well as note useful concrete findings for the PESTEL analysis, particularly the national level, based on the case.

Modes of empowerment

| | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|-------------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|-------|-----------------------------------------------------|
| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | Energy Behaviour | | | Participation in shaping the energy system | | |
| | | | | <i>In decisions making</i> | | <i>In the creation and enhancement of new roles</i> |
| | Autonomy / choice | Capability | Motivation | Control and impact | Voice | Ownership |
| | DEPENDENT ON THE AVAILABLE RESOURCES | | | | | |
| | CONDITIONS FOR EMPOWERMENT | | | OUTCOMES OF EMPOWERMENT | | |
| Material (incl. Tech) | Access to financial resources | | | | | |
| Governance/power | Participative governance | | | Increasing agency and decisions making capacity | | |
| Knowledge | Technical, political, regulatory and social knowledge | | | Addressing structural disempowerment | | |
| | Availability of technical expertise and advise | | | | | |
| Social | Presence and interaction with like-minded people | | | Developing power from institutions to communities | | |

Please note that all research questions related to modes of empowerment require an interview response, although desk research can be done beforehand to check how citizen empowerment is presented. Following the empowerment scheme in the table above, questions have been designed for interviewees. It should be adapted depending on whether the interviewee is a leader/founder or a regular member of the ENCI case.

Please, start with the general questions presented below, which will place the person in the context of the interview to be conducted and allow the interviewer to know their level of knowledge on the subject.

In the field of energy system, a key aspect is empowering people to be energy citizens. Considering this statement:

- 1) *What motivated you to start/join the (name) case?*
- 2) *What is empowerment to you? How would you define it?*

22. Do (did) the actors engaging in ENCI in the case (feel that¹⁶ they) have the autonomy¹⁷ and capacity required to implement their goals/ambitions?

Please summarise your response in cc. 15-20 lines.

- 3) When it comes to energy-related behaviours, to what extent do you feel do you have autonomy and choice regarding your energy options?
- 4) To what extent do you feel you are able to influence what is being discussed and decided in the (name) case?
- 5) To what extent do you feel that acting to shape the energy system is part of your individual and the case's collective responsibility?

23. Do (did) the actors engaging in ENCI in the case (feel that they) have the skills and knowledge to implement their goals/ambitions?

Please summarise your response in cc. 15-20 lines.

- 6) To what extent and in which ways do you feel that the (name) case has contributed to your knowledge about the energy system, its technical, social and political workings? Which are the relevant resources it provides to support this knowledge development?
- 7) To what extent has being a member of this case contributed to developing your skills and capacities to participate in the energy system? What are those skills and capacities? Which resources supported that?
- 8) To what extent has being a member of this case contributed to your sense of having a voice in the energy system? How about having impact in shaping it?
- 9) To what extent do social relations (e.g. personal relationships with others, collaborations, being able to turn to others when you need information or help) within the case play a role in your sense of being an active energy citizen?

¹⁶ Note that here we refer to the feeling of autonomy and capability (individual/psychological empowerment), although it is complemented by the further development of the conditions necessary to exercise this autonomy through questions 32 and 33.

¹⁷ Autonomy refers to how the person formulate and pursue enforcement goals, varying from externally influenced to insulated or mission-centred. Different levels of autonomy are directly related to different levels of motivation to act, from individually responsible behaviour towards the environment, to active participation in shaping the energy system. Therefore, in relation to autonomy we are interested in how individuals develop their capacity to perform their actions individually and volitionally (autonomy/choice), pursuing achievement (motivation), and feeling competent to do so (capability), and this results in the achievement of control and impact, voice and ownership in participating in the energy system.

- 10) Are there aspects that you feel as disempowering within the case? How about in the wider energy system?
- 11) Does the case have a voice in decision-making processes in the wider energy system? Why? Why not?

24. Does (did) the case require some professionalization for its activity and does/did it impact its democratic functioning?

Please summarise your response in cc. 15-20 lines.

This question can be answered with a literature search on the development of the case, please see Q27 and Q29 below for the development history as well, and completed with interview questions if necessary.

- 12) e.g. What is the proportion of voluntary versus hired staff in the case? Is this a recent development or has it always been like this? How does this affect participation in decision-making?

25. Which resources (methods, tools, forms of communication, etc.), beyond the ones you mentioned already, do/did the people involved in the case or case owners use (used) to empower people (i.e. own members, target audience, society in general) towards active ENCI and/or a more just and sustainable energy system?

(You only need to answer this question if there additional resources beyond the ones mentioned in Q23 and Q24.)

Further questions

26. What other (not yet mentioned) wider conditions were perceived by the case actors as crucial for the emergence and development of energy citizenship in the case?

Please list factors that can be attributed to the framework conditions and discuss in which way / through which mechanisms these factors are perceived as beneficial or impeding for ENCI in the case. Please use cc. 15-20 lines for your response.

These questions serve to determine the relevance of remote QCA-conditions / PESTEL factors and/or to identify additional factors that have so far remained unnoticed. This is an exploratory approach.

2.5. Research topic 3: Development over time

Main research question:

How has the ENCI case changed over time?

Please summarise your findings in no more than 30-40 lines about this main research question once you have answered all the questions in this section:

Changing Agency, Aims and ideal-types

27. What kinds of individual/collective agency does the case display, and how has this changed over time? [Make sure to also consider agency in the case beyond the main ENCI type.]¹⁸

Please fill in the timeline in table as relevant to the particular ENCI case with the adequate numbers (date, agency). It is, of course, possible, that you will have less or more phases in the development timeline of the ENCI case, please modify the table as relevant.

Please note that we are not planning to ask interview subjects to answer this question (they do not have the background to understand agency types), this is for the case researcher to fill in.

| Timeline of the case | Phase 1: Creation of the case in XXXX | Phase 2 in XXXX | Phase 3 in XXXX | Phase 4: Current/last state (20XX) |
|----------------------------------------------------------------------------|---------------------------------------|-----------------|-----------------|------------------------------------|
| Agency types: | Main agency | Main agency | Main agency | Main agency |
| Individual: 1. Private in the household 2. Organisationally embedded | | | | |

¹⁸ For the definition of agency types, please refer to [D2.2](#).

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 3. Public Collective: 4. Citizen-based and hybrid 5. Social movements 6. N/A – cases for which agency is different, please specify if you choose this. | Secondary agency (if any) | Secondary agency (if any) | Secondary agency (if any) | Secondary agency (if any) |
| Why and how the change happened? Please explain briefly. | | | | |

28. Have the (transformative/reformative) aims of the ENCI case, individual/organisation, changed over time? Has the case moved from reformative to transformative or vice versa? Has it broadened or narrowed its aims/objectives?

Please select the adequate answers from the lists, and then report the score in the table below and add the required information.

Related to reformative/transformative change:

- 0:** no significant change in the transformative/reformative aims
- 1:** the case moved from reformative to transformative aims
- 2:** the case moved from transformative to reformative aims

Related to the aims/objectives of the case:

- 0:** unchanged
- 1:** broadened
- 2:** narrowed

| Sub-question | Score | Description of change | Illustration/example of change |
|-----------------------------------------------|-------|-----------------------|--------------------------------|
| Transformative / reformative change over time | | | |
| Change of aims/objectives | | | |

29. Did the trajectory and the evolutions/transformations of the case impact the ideal-types that can be assigned to the case? Did the main type and/or secondary ideal-type(s) change over time and how?¹⁹

Please complete the graph below by adding the corresponding numbers (year and type - put N/A if no type can be assigned). It is, of course, possible that more or less phases can be identified in the development of the ENCI case, so please feel free to add or remove rows in the table (as in Q27).



Please note that this question is closely connected to Q27, so make sure that your responses to the two are aligned, and e.g. the Phases cover the same time periods..

Please note that we are **not planning to ask interview subjects to answer this question** (they do not have the background to understand our types), this is for the case researcher to fill in.

| Development phases in the history of the ENCI case | Main typology type | Secondary typology type(s), if any | Please describe what induced the change. |
|----------------------------------------------------|--------------------|------------------------------------|------------------------------------------|
| Phase 1: Creation of the case in XXXX | | | |

¹⁹ For typology types and their definition, please refer to D2.2 and the table provided here in the template.

| | | | |
|------------------------------------------|--|--|--|
| Phase 2 in XXXX | | | |
| Phase 3 in XXXX | | | |
| Phase 4: Current/last state (20XX) | | | |

| AGENCY | INDIVIDUAL | | | COLLECTIVE | |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| OUTCOME ORIENTATION | PRIVATE (HOUSEHOLD) | ORGANISATIONALLY EMBEDDED (E.G., WORKPLACE) | PUBLIC | CITIZEN-BASED AND HYBRID | SOCIAL MOVEMENTS |
| REFORMATIVE  | 1. DO THEIR BIT (in the household) Complying with the green energy transition | 3. DO THEIR BIT (within organisations) Energy citizenship within organisations | 5. MAKE THEIR VOICE HEARD Participating in societal energy discussions | 7. DO THEIR SHARE Joining green energy projects | 9. DO THE JOB Facilitating the energy transition through alignment activities |
| TRANSFORMATIVE  | 2. DO THEIR OWN (in the household) The change-making energy citizen | 4. DO IT THEIR WAY (within organisations) The energy-related change maker in organisations | 6. MAKE THEIR VOTE COUNT Mobilising votes for energy transition | 8. GO AHEAD Building, expanding and linking citizen-based organisational forms | 10. MAKE THEIR CLAIMS Protesting against the current energy system |

Changing roles and transition contexts

30. Does the ENCI case/the individual involved consider itself/themselves to be a ‘frontrunner’/a pioneer in the energy transition²⁰? How has this role in the energy transition changed over time?

It is suggested that you ask this question in an interview.

²⁰ For the definition of frontrunner, please refer to D2.1. You may want to check the response of your interview subject to the evaluation originally made about the case in the mapping survey.

Please indicate how the case considers itself and justifies this evaluation, explain the eventual changes that occurred in its role and how it turned the case into a frontrunner (or conversely, into an early adopter, etc.). Please answer this question in cc. 10-12 lines.

31. Which enabling and constraining contextual developments and/or framing conditions does the ENCI case foresee for the (near/far) future?

It is suggested that you ask this question in an interview.

Please you altogether cc. 15 lines to answer these questions.

Please describe the foreseen developments:

- for the near future (next 3-5 years):

- for the far future:

Please note that this Q is closely connected to Q2 where we ask about short/mid/long-term goals. Make sure your responses to the two questions are harmonised, and you may want to cross reference them.

32. What will they be doing differently in the coming years? What kind of resources will they be seeking to empower themselves?

It is suggested that you ask this question in an interview.

Please use cc. 20 lines altogether to answer these questions.

First, it is suggested that you address the case participant(s)' perception of factors affecting empowerment/disempowerment in the wider energy system and its governance reflecting on

- a) the control and impact over decisions making that the actor and the case feels,
- b) their voice and ownership in the energy system shape; and
- c) their perception about the main factors that contribute to disempowerment.

After that, please address both parts of the question:

- 1) Things that the case actors intend to do differently in the coming years;
- 2) Kind of support they will be seeking to empower themselves.
(Note to interviewers: here, we can help them by pointing out that support can refer to material, knowledge, power/governance, or social resources, in line with what they have answered earlier.)

3. Training materials for using the methodology

In this chapter, the training materials used for the internal training of case researchers in the EnergyPROSPECTS project are presented. The objective of the training was to achieve a shared understanding of both the conceptual background of the research methodology and the research questions across the consortium. The training, just like the case research template, was prepared and delivered in a collaborative way with the participation of various WP teams as the information and data collected will be used to fulfil various research objectives, as explained in section 1 above and more detail in Pel et al., 2022 (D3.3).

3.1. The programme of the training

The internal training was organised online, was recorded for later reference and followed the programme below:

| Timing | Contents/Focus | Responsible |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 10 min | Welcome and warm-up activity | GDI (WP3 lead) |
| 15 min | Introduction to the detailed case collection task ➤ requirements, responsibilities, process, etc. | GDI / WP3 T3.5 lead |
| 15 min | Framing the detailed case research I: The main research foci and research questions | ULB (T3.4 / D3.3 lead) |
| 65 min | Framing the detailed case research II: Introduction to the concepts underpinning the main research foci <ol style="list-style-type: none"> 1. Intermediaries and intermediation 2. QCA 3. “Equity and justice within limits” – transforming the energy system? 4. Empowerment Clarifying Qs by team | GDI – to moderate, UM / WP4 lead NUIG / T4.3 lead GDI / T3.6 lead UDC / T3.7 lead |
| 15 min | Coffee break | 10:45 – 11:00 |

| Timing | Contents/Focus | Responsible |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 5 min | Introduction of the data collection template | GDI / WP3 T3.5 lead |
| 100 min | Testing and standardisation: detailed discussion of the data collection template In this session we will go through the template – i.e. all the questions and explain what kind of information we are looking to collect using which methods | GDI / WP3 T3.5 lead <i>with input from all other participating task leads</i> |
| 10 min | Timeline and working processes | GDI / WP3 T3.5 lead |
| 5 min | Closing and check-out | GDI / WP3 lead |

3.2. Materials and activities used at the training

Here we will explain the activities used (including icebreakers, closing activity, etc.) and provide a methodology guide for implementing them.

3.2.1. Training slides

Part 1: Introduction and the detailed case collection task



WP3: detailed case collection methodology training

Edina Vadovics (GDI), Bonno Pel (ULB), Marianna Markantoni (UM), Benjamin Schmid (NUIG), Adina Dumitru and Luisa Losada Puente (UDC), Ariane Debourdeau (TUB)
8 July 2022



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.



Programme for today

- The case collection process
- Review of the main research questions and foci
- Short introduction of the main concepts
- Introduction to and discussion of the template



The case collection process

Edina Vadovics
GreenDependent Institute



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

The general process

- Similar to ENCI mapping:
 - Template available in Word and in SurveyMonkey
- Different cf. ENCI mapping:
 - We first work in Word (on Teams)
 - We upload information from finalised Word templates into SM
 - To make analysis, and
 - The creation of case reports easier

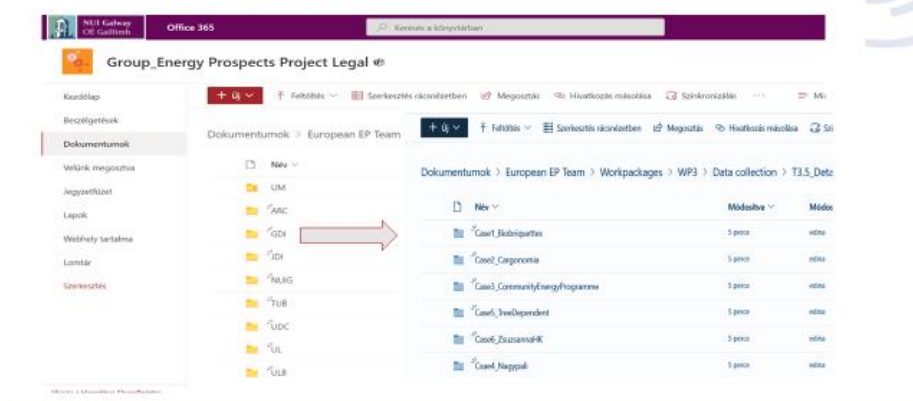


The general process

- On Teams:
 - You're asked to set up a separate folder for each of your cases (under a designated folder)
 - Put the collection template + all pictures, references, background docs, **interesting quotes**, etc. there
- This is important so that:
 - Nothing gets lost
 - Task leaders can follow the general process and progress
 - We can perhaps get inspired by each other's work 😊
- Folder for case research support files as well in the same place
 - WP3 - Data collection - **T3.5_Detailed_case_research_SUPPORT_files**



The files on Teams



The screenshot shows a Teams file explorer interface. The breadcrumb path is: Dokumentumok > European EP Team > Workpackages > WP3 > Data collection > T3.5_Data. A red arrow points to the 'T3.5_Data' folder. The right pane shows a list of files with columns for Name, Modified, and Mode.

| Név | Módosítva | Módo |
|--------------------------------|-----------|------|
| Case1_Bidijordas | 3 perc | edit |
| Case2_Corporation | 5 perc | edit |
| Case3_CommunityEnergyProgramme | 3 perc | edit |
| Case6_Independent | 3 perc | edit |
| Case6_ZuzannaHK | 3 perc | edit |
| Case6_Nagypal | 3 perc | edit |

General methodology (1)

1. First do desk-based document research
 - Using the data and information from the **ENCI mapping stage**,
 - Checking the references mentioned there,
 - Searching for additional documents:
 - case descriptions, founding document, programmatic materials, evaluation reports, annual reports, research and case studies, media reports and articles, etc.
2. Based on desk research fill-in as much information in the template as possible +

Identify questions/sub-questions where more information is needed

 - Design your own interview outline based on information needs
 - Consult task leaders if needed, we're happy to help 😊, **contact Edina first**



General methodology (2)



- **3.** Conduct interview(s), more guidance is still to be included in case research template:
 - for which questions you need to do an interview...
 - how many interviews you need to do...
 - with whom (i.e. at which level in the case)...
 - (potentially, interview guides to come for certain Qs - but some are already included in the template, e.g. empowerment)
 - record interviews, but no need to transcribe + translate
 - **4.** Go back to template, fill-in new information
 - **5.** If anything is needed, contact case subjects/other ones again
-

General methodology (3)



- It's possible that some questions - or parts of questions - will not be relevant to your case, like in ENCI mapping
 - just write N/A + why
 - With some Qs, if you cannot list 3 things, just 2, it's OK!
 - Interviews may not be possible with some cases (e.g. concluded cases, suddenly non-responsive cases, etc.)
 - **If this happens, get in touch with Edina**
 - Generally, it's OK if we have 3-5 cases out of the 40 we are unable to do interviews with... But please notify Edina if this is likely to happen early in the process!
-

General methodology (4)



- As announced earlier, there'll be **check-in meetings/workshops with case researchers** on
 - issues, challenges encountered
 - sorting out uncertainties
 - focusing on specific issues (e.g. QCA questions calibration, intermediaries mapping, etc.)
 - emerging issues :)
-

Reminders... 😊



- Our interview subjects will donate their time to us voluntarily... so
 - Try to be as focused with your questions as possible
 - Always ask which is their preferred way of communication (online, in-person, email, etc.)
 - Offer opportunity to review information about cases before publication (e.g. case study report)
- **Consent form** needs to be signed -- developed by GDI
 - to be translated for local use! Already available in Teams (see T3.5_..._Support files)
- Take project flyer with you (remember to print some!)
- Explain clearly why we are interested in their case (*research on ENCI...*), why we are asking for the interview+data, how we will use their data (all this is also included in consent form!)
- If interview subject is open to this, take a photo together, and we can communicate it (post, prepare a blog with several, etc.)
 - This may be a **good opportunity for cases to get known by a wider audience**

An example...



Part 2: The main research foci and the research questions



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Research foci

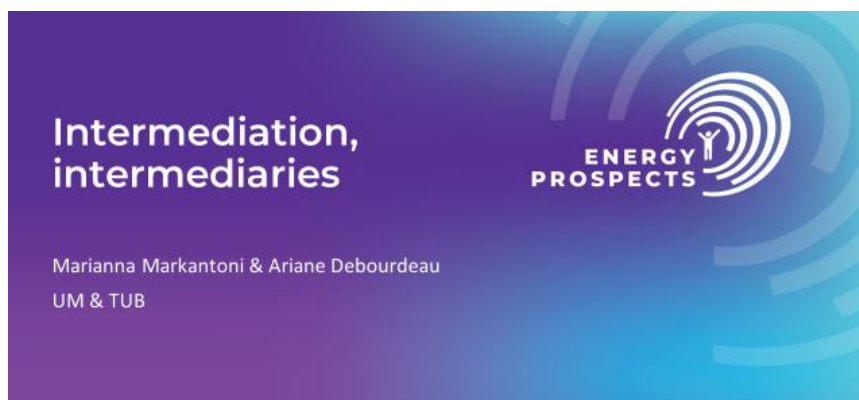


Methodological guidelines/case selection in a nutshell:

- QCA as key structuring principle: **Why**, thanks to **which conditions**, are some forms of ENCI achieving better/more than others? (our project proposal)
- **Topic 1: ENCI achievements.** Negative/positive cases (WP4), and unpacking of ENCI as 'crossroad of political ideals' (WP2+WP6).
- **Topic 2: Conditioning factors and intermediation.** Why (under which conditions) do cases of energy citizenship achieve their goals and make achievements towards the democratisation of the energy system? (WP4+WP5).
- **Topic 3: Development over time.** Shifts between ideal-types; changing roles in transition (WP2), strategic reflections on past and future developments (WP6).



Part 3: Introduction to the concepts underpinning the main research foci



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

Intermediaries, ICT, Business models towards ENCI - achievements



- Research into intermediary activities/roles/functions, ICT and Business/Social innovation models will help to **understand the conditions and mechanisms that shape energy citizenship.**
- **Collective action often requires intermediation to cross boundaries and bridge between organisations, domains, different institutional logics, different worlds!**
- **Intermediaries can help ENCI initiatives to achieve a bigger impact and help them reach their goals/achievements!**
- **SO.....INTERMEDIATION FOR ENCI ACHIEVEMENT IS VERY IMPORTANT!**

The *in-betweenness* of intermediaries



Intermediaries...

- **bridge between actors and their related activities, skills and resources in situations where direct interaction is difficult due to high transaction costs, information asymmetry or communication problems;**
- **operate as 'boundary organisations' engaging in 'relational work' to connect up and bridge between different actors:**

Whether facilitating dialogue, providing guidance, bridging gaps, advocating reform, or pioneering novel forms of interaction, their arenas of action are defined by their 'in-betweenness'.
(Moss, 2009:1481)

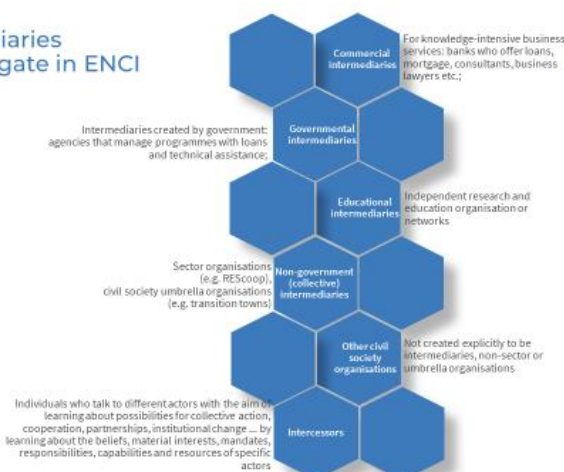


Intermediary approach in EnergyPROSPECTS



- EP starting point: intermediaries "mediate, work in-between, make connections, and enable a relationship between different persons or things" (Hodson et al., 2013:1408)
- We want to know more about intermediation as an **interaction-based process and shaper of activities and outcomes** regarding a fair and sustainable energy production, consumption and governance, which means for the case studies to question:
 - To what extent the ENCI cases/initiatives are able to **do intermediary work by themselves** through knowledgeable, self-confident members (depending on the expertise available in the initiative, the complexity of collaborating with others)?
 - Or does this require the **involvement of external organisations**?
 - What is the role of **ICT, business/innovation models**? How are these conditions **enabling the case to achieve its goals and/or to self-sustain**?

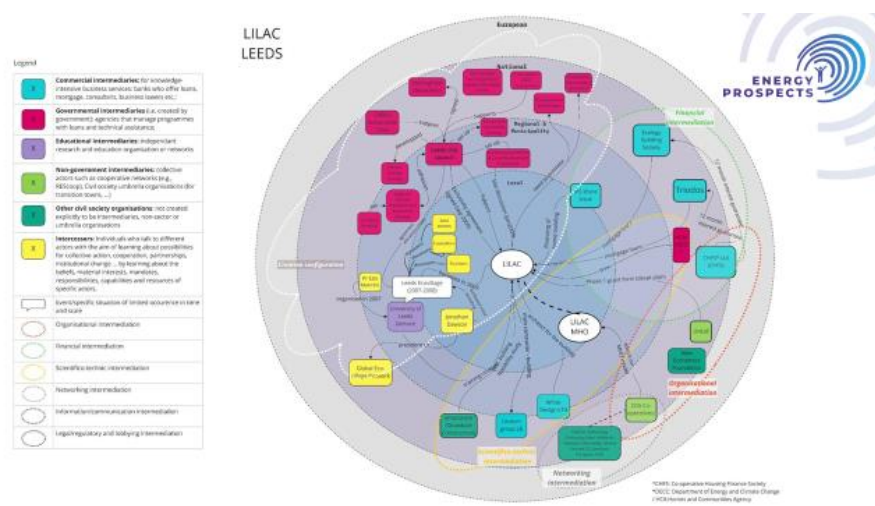
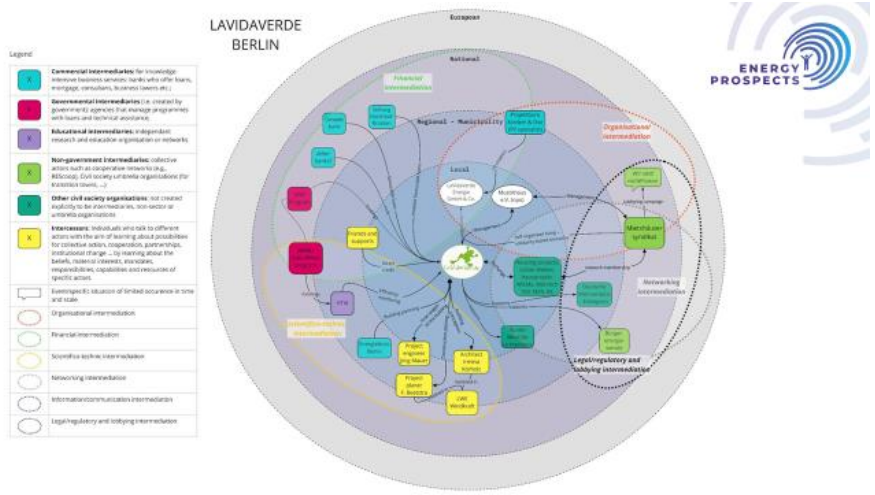
Intermediaries to investigate in ENCI



Intermediaries as knowledgeable individuals



- Intermediation by **knowledgeable & self-confident** people with capabilities for:
 - Listening;
 - Understanding frames of others;
 - Trusted for being fair and interested in the greater good.
- (Often) **retired professionals** fulfill these roles:
 - Time/resources/skills;
 - Desire to 'do something good' and seeing a concrete impact of their actions in the world (after lifetime of learning);
 - Engage in returning (rendering services to society).
- **Direct encounters of people** (bilateral, multilateral meetings)



Qualitative Comparative Analysis (QCA)

Benjamin Schmid
NUIG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

What is Qualitative Comparative Analysis (QCA)?



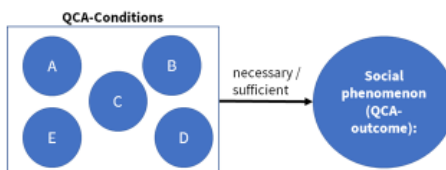
Questions you might have

- Why were there so many case selection criteria for the QCA?
- What do we gain from using QCA as a methodology?
- What do I need to know about QCA for the process of the case studies?

What is Qualitative Comparative Analysis (QCA)?



- Method for causal analysis in middle-ground between **qualitative** and **quantitative** / **case-oriented** and **variable-oriented** research strategies
- Both a **research approach** and **technique for data analysis** for **medium-n case studies**, particular terminology
- QCA uses set-theoretical logic to answer a **why-question**: To find a **exhaustive causal explanation** of (occurrence or presence of) a **social phenomenon** ("QCA-outcome")



QCA: A quick introduction



Case number: 1 2 3 ... 20

QCA-Outcome

Condition A

Condition B

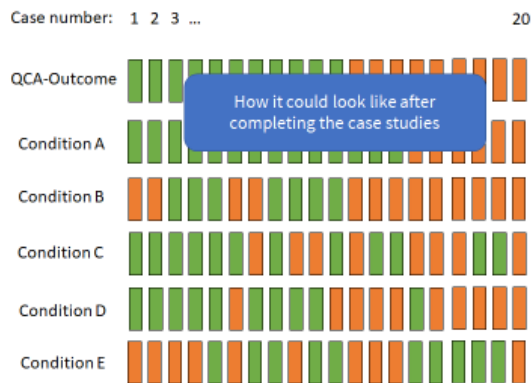
Condition C

Condition D

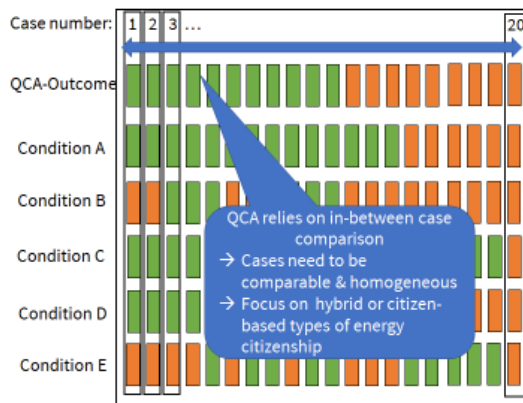
Condition E



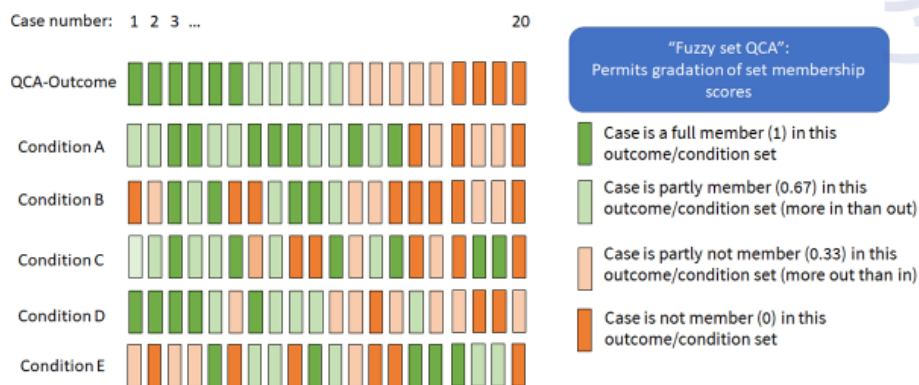
QCA: A quick introduction



QCA: A quick introduction



QCA: A quick introduction



QCA: A quick introduction



Case number: 1 2 3 ... 20

QCA-Outcome

Condition A

Condition B

Condition C

Condition D

Condition E

→ QCA as technique of data analysis: Algorithm that helps identifying and minimizing necessary and (combinations of) sufficient conditions

→ Solutions term for sufficiency: B or C(and)D → Outcome

→ Complex causality (conjunctural, equifinal, asymmetric)

Necessary condition: Whenever the outcome is present, this condition is present as well. But there are cases where this condition is present but the outcome is not

Sufficient condition: Whenever this condition is present, the outcome is present as well. But there are cases where the outcome is present but the condition is not

Conjunctural logic: Both conditions alone are neither necessary nor sufficient. But simultaneous presence of both conditions is sufficient for outcome (no cases in which both are present and the outcome is not)

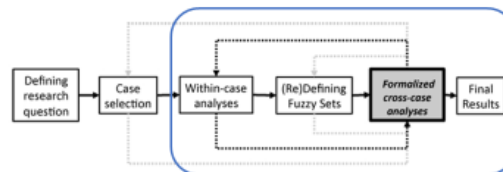
QCA: A quick introduction



- So far: how QCA works as method of data analysis
- But what about the Q in Qualitative Comparative Analysis?

→ QCA as research approach

- Iterative character allowing reconceptualization or reinterpretation of conditions and of calibration of conditions during the research process
- Dialogue between within-case knowledge and relevant theories



<https://www.qualitative-research.net/index.php/fqs/article/view/1961/3594>

QCA in EP case studies Preliminary outcome and conditions



Case number: 1 2 3 ... 20

Outcome: Substantial achievements towards the democratisation of the energy system (+ others)

Condition A: Perception of strong democratic deficit in the energy system by case actors

Condition B: Dense intermediary environment

Condition C: Substantial support though policy framework

Condition D: Close collaboration with/high dependence on local government

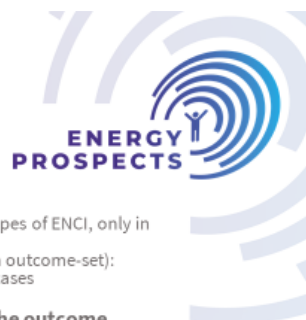
Condition E: No need for strong professionalisation in business model

QCA-research question: What are necessary and sufficient conditions for cases of hybrid or citizen-based types of energy citizenship to make achievements towards the democratisation of the energy system?

The empirical basis for all these conditions and the outcome is provided through answers to the questions in the template

→ Further (remote) conditions to be developed in relation to national PESTEL analysis

QCA in EP case studies: Process in case studies



- **Case selection: 20 “QCA-cases”**
 - Comparable/homogeneous cases: only hybrid or citizen-based types of ENCI, only in partner countries
 - Ensuring that we have “negative cases” (with non-membership in outcome-set): Diversity in citizen power & control manifestation in mapping of cases
- **Further development and calibration of conditions and the outcome**
 - **Workshop in October** dedicated to QCA: Determining the conditions
 - When the answers to the template will be entered into **Survey monkey**, **standardised questions on the memberships of the cases in the QCA sets** will be included (no additional text-based answer required!)
- **After the analysis:** presentation of the identified patterns of necessary and sufficient (combinations of) conditions to the case study researchers, possible short queries on outlier cases

Main takeaways



- QCA as a **helpful tool to deal with complexity** when **comparing medium-n case studies** and to produce robust findings
- More than a technique for data analysis, **relies on a qualitative research approach** → further development of conditions during case study process (**QCA-workshop in October, final standardised assessment in survey monkey**)
- When answering the questions on topic 2 (conditional factors), **keep in mind the QCA and the fact that the answers to these questions are intended to explain the achievements** established in topic 1 (ENCI achievements), in particular the democratisation of the energy system.
- **Further information** on QCA (with an example) and further links to resources about it can be found [here](#)

Transforming the energy system: equity and justice within limits



Edina Vadovics
GDI



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

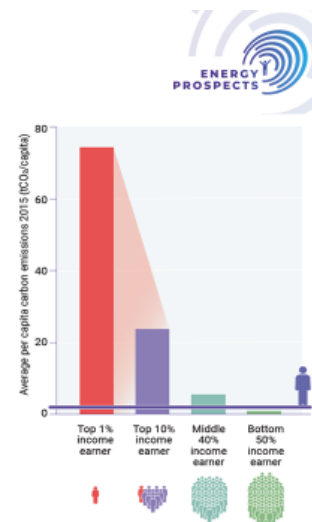
So, now we take a different perspective...



- „...understand the various ways in which energy citizenship (ENCI) affects the clean-energy transition process across Europe”
- How ENCI cases contribute to the sustainable, low-carbon, just and inclusive transition of the energy system?
- We look at this from various points of views (intermediation, business models and ICT, empowerment, etc.), but can we gain more of an overall picture?
 - This is what we would like to look at a bit more as part of the meta analysis in WP3
 - And thus contribute to the understanding of the transformative aspect of ENCI (vs. the conceptual typology)

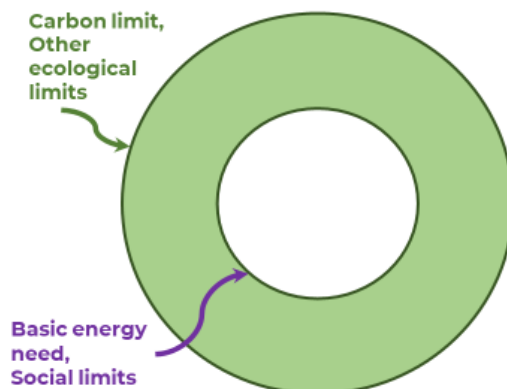
The two main aspects

- On the one hand, we have:
 - The climate urgency
 - The 1.5°C target agreed on in the Paris Agreement
 - Which would entail going down to an average per capita carbon footprint of
 - 2 - 2.5 tons of CO₂ by 2030, and
 - 0.7 tons by 2050
- And on the other:
 - Issues related to access to clean energy
 - Basic energy needs not met
 - Gross inequalities



Source: [UNEP Emissions Gap Report 2020](#)

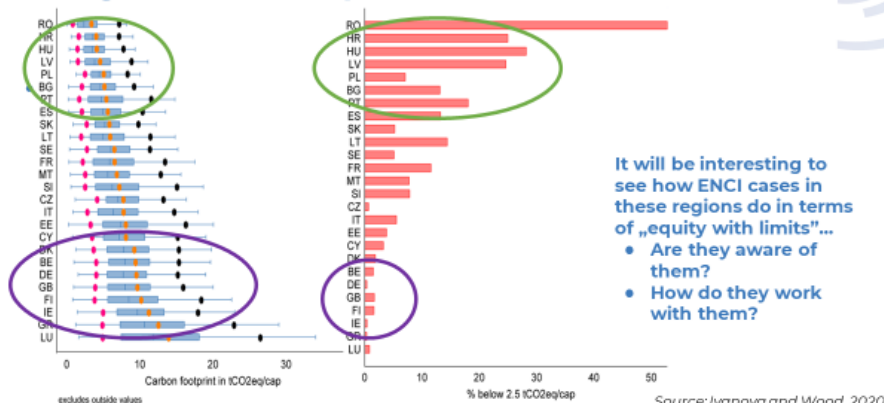
Bringing them together



- Where can ENCI cases be situated in terms of how they help people, communities, society, ... to move „into the doughnut”?
- Do ENCI cases have an integrated approach, i.e. combine environmental and social goals?

Inspiration: Raworth, K./ [Doughnut economics](#)

Some carbon footprint insights in Europe



How do we research this?

- Many questions related to the equity/justice aspect:
 - E.g. Citizen power, democracy, disadvantaged groups, equity/justice...
- Less questions, but still some related to the environmental sustainability aspect:
 - E.g. overall assessment of incorporation of env. sustainability into goals, carbon limit, other ecological and resource limits
- We have a basic set of data from the mapping stage, now we
 - Confirm/reconsider what we have, and
 - **Get concrete evidence** (numbers, examples, etc.)
- Other questions also relevant (e.g. objectives, achievement of objectives, etc.)

Some of the potential outcomes...



Empowerment, empowering ENCI

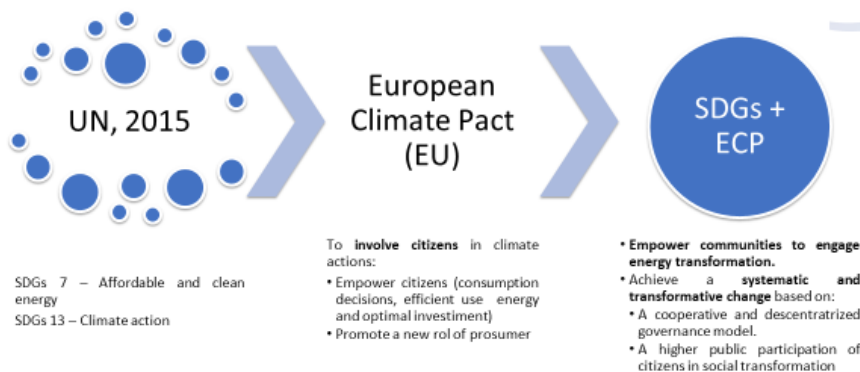


Adina Dumitru, Luisa Losada, Manuel Peralbo, Nuria Rebollo, Juan Carlos Brenlla, & Manuel García
UDC



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022492.

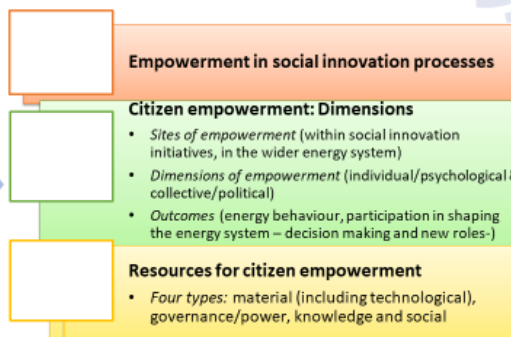
The global political agenda and the concept of empowerment

So, what do we talk about when we talk about empowerment and why?



We emphasise **citizen empowerment** to participate meaningfully in the energy system as a primary way to "achieve the levels of public participation necessary to address the myriad social crises we face" (Lennon et al., 2020, p. 193).





Empowerment in social innovation processes

How do individuals...



... experience psychological empowerment through SI?

- Striving to exert **control and influence** over life decisions, the organisation and the quality of life of their community.
- By making their **voice heard**, by **defending their rights** and interacting with public organisations, and by **taking ownership** of issues related to the energy system.

... move from individual to collective empowerment?

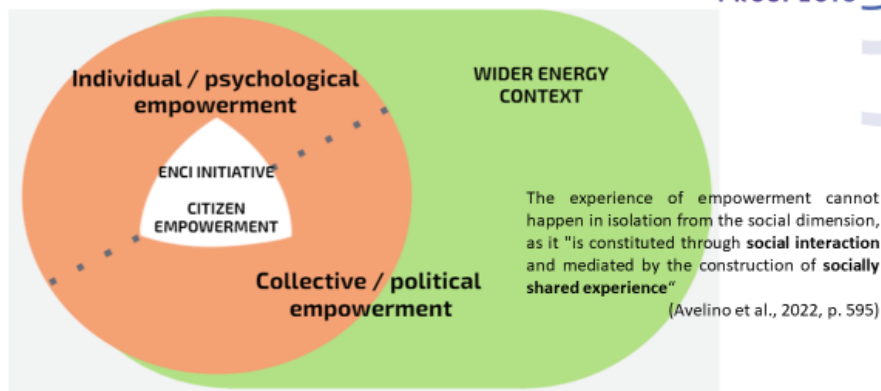
- The initiative creates a microcosm where individuals begin to act collectively.

By working together to shape the energy system, members of an initiative develop a collective identity, which also became a social resource

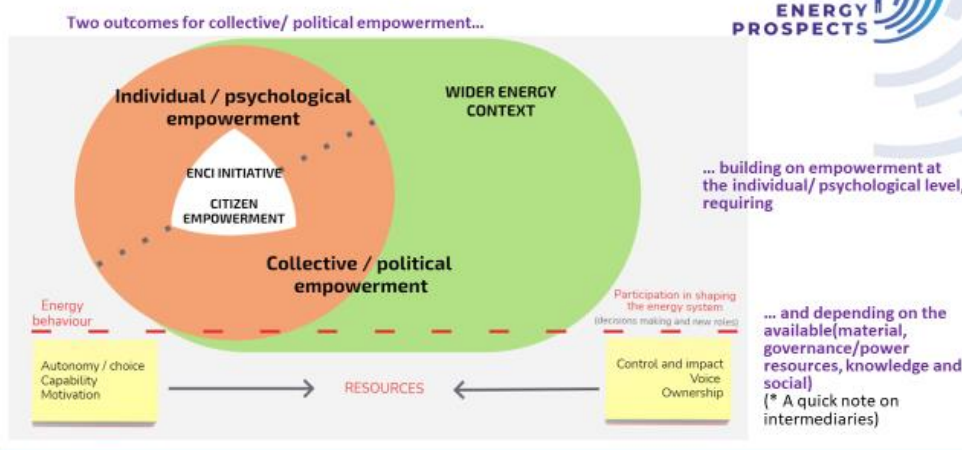


Citizen empowerment: Dimensions

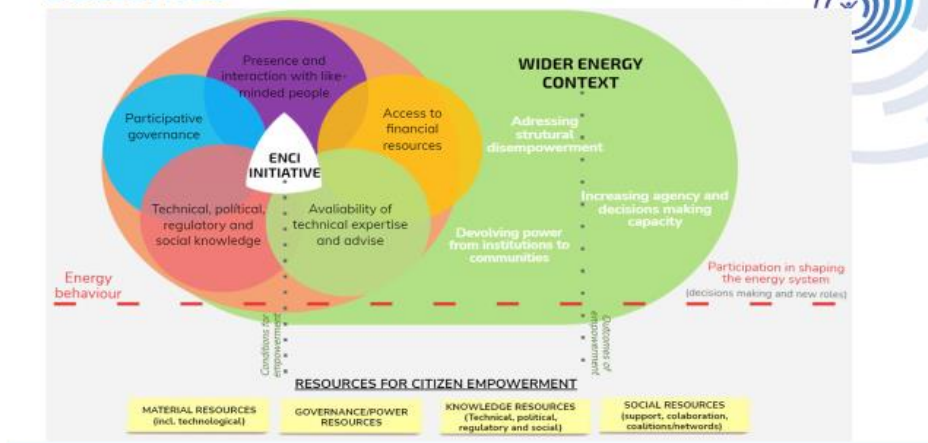
Levels of empowerment

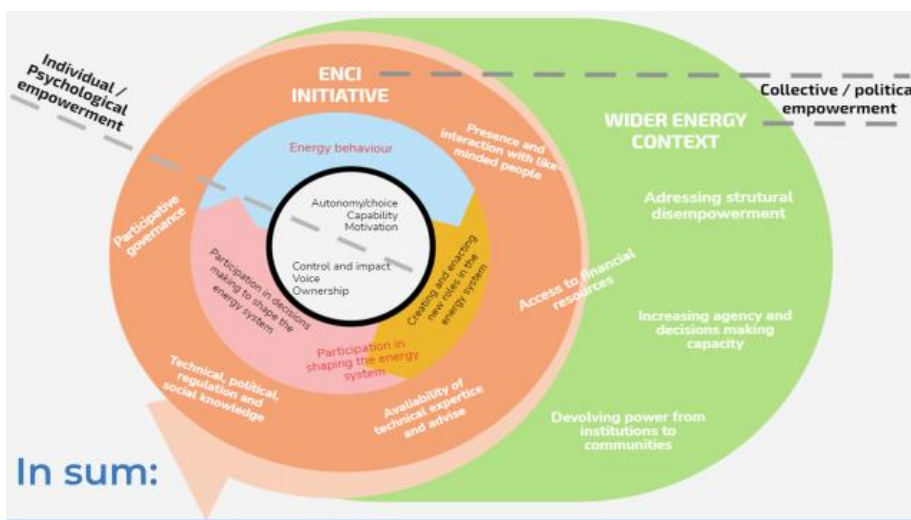


Processes of empowerment



Pathways to different empowerment outcomes





In sum:

How to manage with this scheme in the interview?

| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|----------------------------------------------|-----------|
| | Energy Behaviour | | | Participation in shaping the energy system | | |
| | Autonomy / choice | Capability | Motivation | In decisions making | In the creation and enhancement of new roles | |
| | | | | Control and impact | Voice | Ownership |
| | DEPENDENT ON THE AVAILABLE RESOURCES | | | DEPENDENT ON THE AVAILABLE RESOURCES | | |
| | CONDITIONS FOR EMPOWERMENT | | | OUTCOMES OF EMPOWERMENT | | |
| Material (incl. Tech.) | Participative governance | | | Access to financial resources | | |
| Governance/power | Technical, political, regulatory and social knowledge | | | Increasing agency and decisions making capacity | | |
| Knowledge | Availability of technical expertise and advice | | | Addressing structural disempowerment | | |
| Social | Presence and interaction with like-minded people | | | Developing power from institutions to communities | | |

Additional info for reviewer/ possible survey

Degree of autonomy/motivation perceived: Which of the following statements seems to be closer to the ENCI initiative:

- (a) The energy actions that are developed in the Initiative respond to a social demand, which are materialised in the private and individual sphere, without active participation in the change in the energy system (amotivation);
- (b) The energy actions developed in the case respond to a social demand, the initiative would be interested in, but currently has no power and control for generating a greater impact on the energy system (absence of power and control);
- (c) The energy actions of the Initiative are developed in an independent and citizen-based way because I know that this will bring economic, pleasant, social benefits... for me and maybe also for my family... for me and maybe also for my environment (extrinsic motivation);
- (d) Members of the ENCI initiative act in an independent and in control way because they feel that this is the only way to improve the current situation (intrinsic motivation).

Open-ended question: Explain an example of successful autonomous implementation of activities towards the achievement of goals/ambitions.

Q29. Do (did) the actors engaging in ENCI in the case have the autonomy and capacity required to implement their goals/ambitions?

- Do you feel you have the autonomy to develop and adopt behaviours in line with ENCI?
- Do you feel you have the capacity to develop and adopt behaviours in line with ENCI?

Possible examples from LILAC

Q11-12. OVERVIEW/SUMMARY:

- Members of the community - organized as a cooperative - live in their own homes but share the financial responsibility as well as the development and management of the community.
- Participants are engaged as citizens in co-shaping their own social environment.

Q24. MOTIVATION, OBJECTIVES

- Recognition of the seriousness of climate change
- Community building,
- Creating opportunity for sustainable and affordable living, improve energy efficiency of buildings

Q25. MOST IMPORTANT AIM FOR ENCI ACTORS

- Reducing the carbon footprint (of individuals, households, organizations, etc.)
- Creating and promoting an alternative societal and/or economic model
- Providing and ensuring sustainable and affordable living



Q54. EFFECTIVE CITIZEN POWER/CONTROL

- High: especially when it comes to self-management within the cooperative with democratic decision-making, with citizen control mainly being concerned with the financing and management of housing. Although effective citizen control doesn't have major relevance for the energy aspect, participants can have a significant say on their own energy provision

How to manage with this scheme in the interview?

| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|----------------------------------------------|-----------|
| | Energy Behaviour | | | Participation in shaping the energy system | | |
| | Autonomy / choice | Capability | Motivation | In decisions making | In the creation and enhancement of new roles | |
| | | | | Control and impact | Voice | Ownership |
| | DEPENDING ON THE AVAILABLE RESOURCES | | | | | |
| | CONDITIONS FOR EMPOWERMENT | | | OUTCOMES OF EMPOWERMENT | | |
| Material (incl. Tech) | Participative governance | | | Access to financial resources | | |
| Governance/power | Technical, political, regulatory and social knowledge | | | Increasing agency and decisions making capacity | | |
| Knowledge | Availability of technical expertise and advice | | | Addressing structural disempowerment | | |
| Social | Presence and interaction with like-minded people | | | Developing power from institutions to communities | | |

Q30. Do (did) the actors engaging in ENCI in the case have the skills and knowledge to implement their goals/ambitions?

- What kind of skills do you think are relevant for the different outcomes of empowerment (energy behaviour and participation in shaping the energy system – decisions making and new roles-)?
- What kind of knowledge do you think are relevant for the different outcomes of empowerment?

Additional info for reviewer/ possible survey

Skills that each actor has: To what extent (Likert scale 1-5) the members of the initiative:

- (1) are involved in making autonomous decisions and choices in their individual actions towards the energy system;
- (2) engage in autonomous decision-making and choices as an active part of the ENCI initiative;
- (3) perceive themselves capable of executing actions that respond to the need for changes in the energy system;
- (4) remain motivated to act, even in the face of adversity (persevere, never give up).

Knowledge:

- (a) **Basic training available to you to carry out your ENCI activities:** is there any type of advanced training that is more closely linked to the development of these activities?
- (b) **Continuous training:** is it necessary to train throughout life? What motivates the development of complementary training actions?

How to manage with this scheme in the interview?

| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|----------------------------------------------|-----------|
| | Energy Behaviour | | | Participation in shaping the energy system | | |
| | Autonomy / choice | Capability | Motivation | In decisions making | In the creation and enhancement of new roles | |
| | | | | Control and impact | Voice | Ownership |
| | DEPENDING ON THE AVAILABLE RESOURCES | | | | | |
| | CONDITIONS FOR EMPOWERMENT | | | OUTCOMES OF EMPOWERMENT | | |
| Material (incl. Tech) | Participative governance | | | Access to financial resources | | |
| Governance/power | Technical, political, regulatory and social knowledge | | | Increasing agency and decisions making capacity | | |
| Knowledge | Availability of technical expertise and advice | | | Addressing structural disempowerment | | |
| Social | Presence and interaction with like-minded people | | | Developing power from institutions to communities | | |

Q31. Does (did) the case require some professionalisation for its activity and does/did it impact its democratic functioning?

Indicate (if applicable) the level of acquisition and type of information/training that was required to carry out your activity in a democratic way:

- To what extent members of the ENCI initiative feel they have enough knowledge to develop a ENCI strategy?
- How do they access knowledge?
- To what extent is it important for each member to have the knowledge or just access it through other members?

Additional info for reviewer

Knowing that you do not know something does not necessarily disempower you even that you have access to this knowledge by turning to other people in the social innovation.

Possible examples from LILAC

Q31. ACTORS INITIATED THE CASE:

- Two or more individuals, an informal group of individuals

LILAC began with a group of five Leeds residents, interested in the idea of building their own homes so they could live and bring up their children in a different way. Three years later, they set up Lilac Mutual Home Ownership Society Ltd.

Q33. ACTORS CURRENTLY INVOLVED

- A group of individuals
- A group of households
- NGO(s) (or NPO, association, foundation, charity...)

Q52-53. LEVEL OF HYBRIDITY

- No hybridity: The community members are entirely residents, so it has no hybridity.



Possible examples from LILAC

Q31. ACTORS INITIATED THE CASE:

- Two or more individuals, an informal group of individuals

LILAC began with a group of five Leeds residents, interested in the idea of building their own homes so they could live and bring up their children in a different way. Three years later, they set up LILAC Mutual Home Ownership Society Ltd.

Q33. ACTORS CURRENTLY INVOLVED

- A group of individuals
- A group of households
- NGO(s) (or NPO, association, foundation, charity...)

Q52-53. LEVEL OF HYBRIDITY

- No hybridity: The community members are entirely residents, so it has no hybridity.



But... what about the kind of skills and knowledge that are relevant for the different outcomes of empowerment (energy behaviour and participation in shaping the energy system – decisions making and new roles-)?



How to manage with this scheme in the interview?

| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|--------------------|-------|
| | Energy Behaviour | | | Participation in shaping the energy system | | |
| | Autonomy / choice | Capability | Motivation | In decisions making | Control and impact | Voice |
| Material (incl. Tech) | Participative governance | | | Access to financial resources | | |
| Governance/power | Technical, political, regulatory and social knowledge | | | Addressing structural disempowerment | | |
| Knowledge | Availability of technical expertise and advice | | | Increasing agency and decisions making capacity | | |
| Social | Presence and interaction with like-minded people | | | Addressing structural disempowerment | | |
| | DEVELOPING POWER FROM INSTITUTIONS TO COMMUNITIES | | | DEVELOPING POWER FROM INSTITUTIONS TO COMMUNITIES | | |

Q32. Which resources (methods, tools, forms of communication, etc.) the people involved in the case or case owners use (used) to empower people (i.e. own members, target audience, society in general) towards active ENCI and/or a more just and sustainable energy system?

Additional info for reviewer

- Do you feel that the initiative supports you? How does it do so?
 - Do you feel you have the necessary resources, within the initiative?
 - And in the governance of the energy system?
 - What types of resources do you have at your disposal/use to foster empowerment (please, ask to contextualize resources for the different outcomes of empowerment)?
- **Material resources (incl. technology):** platforms to be in contact with the members, economic resources for both internal and external activities to foster empowerment
 - **Governance/power resources:** internal governance structure, how decisions are made, votes, etc.
 - **Knowledge resources:** access to formal training, peer-to-peer learning, tutoring, networking.
 - **Social resources:** common social capital, support from others, sense of belonging, common identity and purpose.

Possible examples from LILAC

Q39. NETWORKS OF SIMILAR INITIATIVES

- Mutual Home Ownership Society

Q46-47. FUNDING

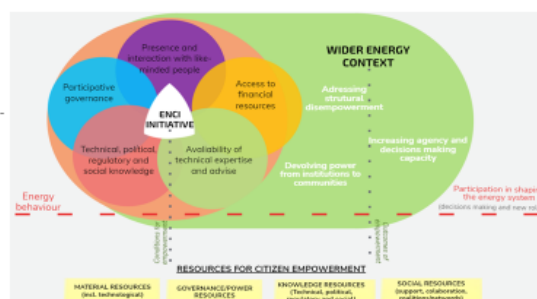
- Case owner(s)' private funds including owners' pre-existing funds
- National public funds and loan

Q48-49. ACTIVE/PASSIVE FORMS OF ENCI

- Active (84): Initiators have been engaged in joint activity over a long period of time to implement the case and have developed new models themselves. They are also active role models for other similar living communities.

Q50-51. PRIVATE/PUBLIC FORMS OF ENCI

- Public, smaller scale: it includes mainly actions within the community group



How to manage with this scheme in the interview?

| BUILDING ON EMPOWERMENT AT INDIVIDUAL/ PSYCHOLOGICAL LEVEL, REQUIRING: | OUTCOMES FOR COLLECTIVE EMPOWERMENT | | | | | |
|------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|---------------------------------------------------|----------------------------------------------|-----------|
| | Energy Behaviour | | | Participation in shaping the energy system | | |
| | Autonomy / choice | Capability | Motivation | In decisions making | In the creation and enhancement of new roles | |
| | | | | Control and Impact | Voice | Ownership |
| | DEPENDING ON THE AVAILABLE RESOURCES | | | | | |
| | CONDITIONS FOR EMPOWERMENT | | | OUTCOMES OF EMPOWERMENT | | |
| Material (incl. Tech) | Participative governance | | | Access to financial resources | | |
| Governance/power | Technical, political, regulatory and social knowledge | | | Increasing agency and decisions making capacity | | |
| Knowledge | Availability of technical expertise and advice | | | Addressing structural disempowerment | | |
| Social | Presence and interaction with like-minded people | | | Developing power from institutions to communities | | |

Q39. What will they be doing differently in the coming years? Which kinds of support will they be seeking to empower themselves?

Open-ended response:

First, we suggest to address their perception of factors affecting empowerment/disempowerment in the wider energy system and its governance:

- To what extent do you feel that yourself and the initiative have control and impact over decisions making?
- To what extent do you feel that yourself and the initiative have a voice and ownership in the energy system shape?
- What do you think are the main factor that contribute to disempowerment?

Please address both parts of the question:

- Things that the case actors intend to do differently in the coming years:
- kind of support they will be seeking to empower themselves:

Part 4: Introduction to the data collection template

The template...



- We have 40 questions (and some sub-questions)...
 - It is a LOT!
So it's important to use the information we already have + space ourselves (don't leave everything to the end)
 - Some questions require information that is closely connected
 - Not all questions will be relevant to all cases, then say so
- The template is work in progress
 - Will be reviewed based on your comments today

The template...



- 3 main parts corresponding to the 3 research foci
 - main research question of each focus area
 - questions to help answer the main question

Method now...



- We'll switch to the questions/template now...
- We'll go through them, but
 - we won't look at the more straightforward ones...
- The task leaders will help answer your questions
- Please ask questions, nothing is irrelevant 😊
 - Or if we find there's no time for everything, please send them to me or post in Chat

Switch to template...

• ...



Part 5: Detailed discussion of the data collection template

No slides were prepared for this part of the training as the detailed case research template was used as the training material.

Part 6: Timeline and working processes, closing

So, the timeline for finalizing the template and D3.4

- Share comments on Teams until end of Monday
 - NOT “template team”!
 - Questions cannot be added, comments should focus on meaning of questions + what is expected
- Template team review once more until **15 July**
- GDI and ULB (Edina and Bonno :) finalize template until **21 July**
- Submission of D3.4...



Timeline for case research



- You can **already start reviewing information** about your cases
 - Case list on Teams
 - Latest information on each case also on Teams (from SM, in 2 formats)
 - **Template final by 22 July - put on Teams**, you'll be notified
 - First check-in meeting: in September
 - Doodle to come
 - Please start before that
 - Deadline for data collection: **February 2023 (filled in SM)**
-

Questions and comments by eam, and closing

3.2.2. Piloting and standardisation

Originally, the EP consortium planned to include a piloting stage for the detailed case research template before commencing the work. However, due to the very extensive nature of the questionnaire and the length time required for testing, the decision was made that instead of a 'traditional' piloting stage, an alternative methodology would be developed. This means that case researchers were first asked to study the template with a specific case in mind, the same case for all researchers that was already used as the case to standardise the mapping methodology during the first stage of case research (namely the case called LILAC Low Impact Living Affordable Community). Thus, the case was known and studied by the team already, and data on it was available for the mapping stage.

Then, during the detailed discussion of the case research template (Part 5 of the training), the case of LILAC was used as an example to clarify data and information needs as well as to discuss and resolve specific questions by case researchers. This way, a shared

understanding of how to approach questions related to cases of ENCI could be more easily established.

Finally, the detailed case research process is designed to be interactive, as presented in section 4, with regular check-in, study and analysis meetings for case researchers in order to further ensure that the detailed case research process is standardised, and the information and data collected about cases is comparable.

4. The process of detailed case collection in EP

In order to ensure the standardised use of the case data collection template throughout the consortium, an **interactive research process** was designed. This means that throughout the data collection period (July/August 2022 to February 2023), case researchers are invited to regular check-in meetings. As Figure 2 shows, at these meetings, in addition to a general sharing of experience, challenges and positive stories, the research team will also focus on a specific theme (e.g. interviews, calibrating QCA questions, mapping intermediaries, etc.). This is necessary in order to ensure a shared understanding of issues as well as focused and collaborative work on specific research objectives given that the template and accompanying analysis process includes and uses very different methodologies. At the time of submitting the current deliverable, i.e. at the beginning of the detailed case research process, the EnergyPROSPECTS team is planning to have 5 check-in meetings, but the number and focus of the meetings may change depending on feedback from and needs expressed by case researchers during the process.

Furthermore, as data collection happens over several months and includes desk research as well as interviews and site visits, researchers are first asked collect data in a Word-based research template (as presented in section 2). Towards the end of the data collection process, they will enter all data into an online tool (developed using SurveyMonkey) to allow for easier data processing and analysis by different research task leaders, mainly in WP4 (conditioning factors of energy citizenship, intermediaries and QCA), WP2 (development of energy citizenship) and WP3 (empowerment and meta analysis).

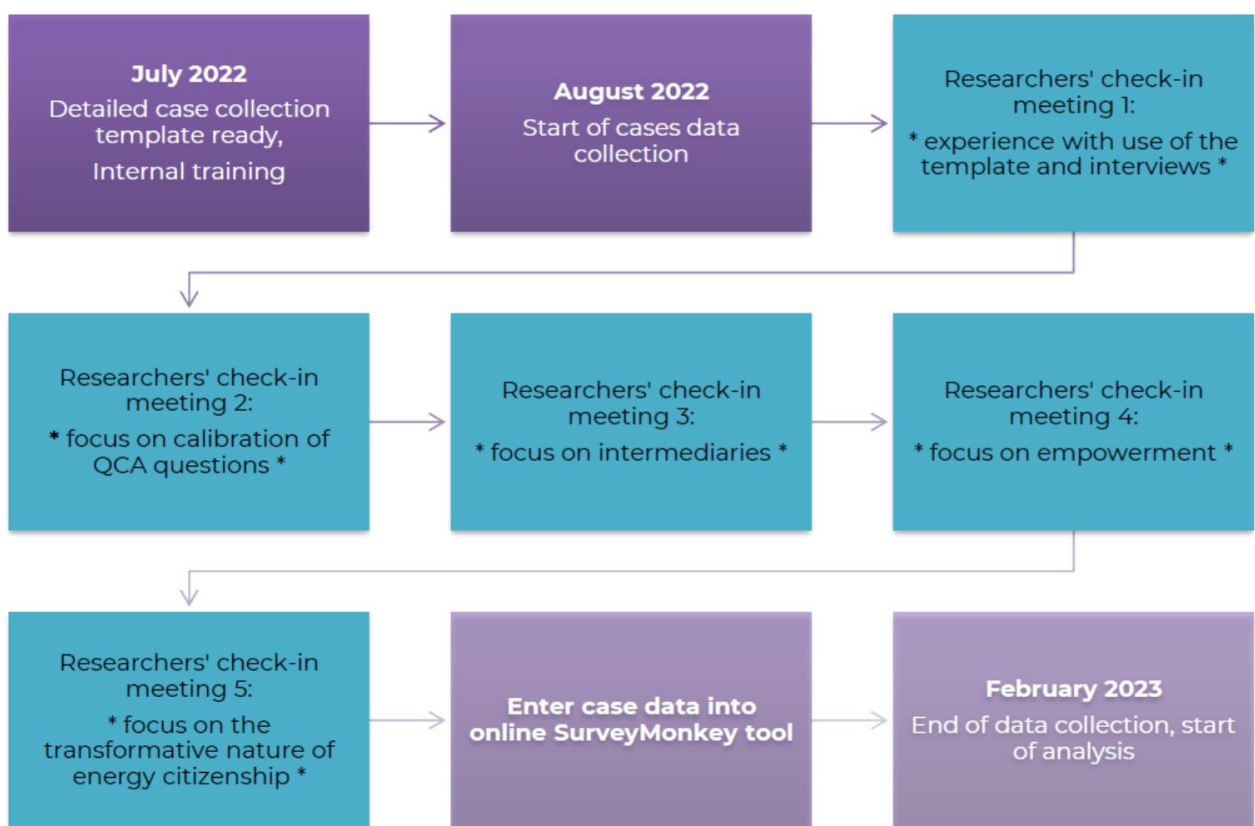


Figure 2: The detailed case research process

5. Research ethics considerations

All research activities described in the methodology will be carried out in agreement with the *Research ethics guidelines* of the EnergyPROSPECTS project (Vadovics et al., 2021). Furthermore, a Consent form (see Annex I.) was created to ensure that case participants who will be interviewed and/or asked for photos are fully aware of what their data and information will be used for. Case owners and interview subjects will also be given the opportunity to review what the consortium is planning to publish in their case reports.

All information gathered through the detailed case collection template presented here will be handled in accordance with GDPR guidelines and the data management guidelines laid down in the EnergyPROSPECTS project (see the *Data management plan* in NUI Galway, 2021 and the *Research ethics guidelines* in Vadovics et al., 2021). The information derived from the detailed case research will be exclusively used within the frame of the EnergyPROSPECTS project and will not be provided to any third parties. Identifiable data will be safely stored.

References

Debourdeau, A., Schäfer, M., Pel, B., Kemp, R., Vadovics, E., Dumitru, A. (2021) Conceptual typology. EnergyPROSPECTS Deliverable 2.2, European Commission Grant Agreement No. 101022492.

NUI Galway (2021) Data Management Plan. EnergyPROSPECTS Deliverable 1.1, European Commission Grant Agreement No. 101022492

Pel, B., Debourdeau, A., Kemp, R., Dumitru, A., Schäfer, M., Vadovics, E., Fahy, F., Fransolet, A. Pellerin-Carlin, T. (2021) Conceptual framework energy citizenship. EnergyPROSPECTS Deliverable 2.1, European Commission Grant Agreement No. 101022492.

Pel, B., Vadovics, E., Schmid, B., Markantoni, M., Debourdeau, A., Thalberg, K., Dumitru, A., Losada Puente, L., Kemp, R., Schäfer, M., Hajdinjak, M. (2022) Case study data collection methodology (including list of cases for in-depth study). EnergyPROSPECTS Deliverable 3.3, European Commission Grant Agreement No. 101022492

Radtke J., Drewing E., Eichenauer E., Holstenkamp L., Kamlage J.H., Mey F., Warode J., Wegener J. (2020) Chapter 4 - Energy transition and civic engagement. The Role of Public Participation in Energy Transitions. Academic Press: pp. 81-91.

Vadovics, K., Vadovics, E., Zólyomi, Á., Fahy, F. (2021) Research ethics considerations. EnergyPROSPECTS Deliverable 1.5, European Commission Grant Agreement No. 101022492.

Vadovics, E., Vadovics, K., Zsemerovszky, L., Asenova, D., Damianova, Z., Hajdinjak, M., Thalberg, K., Pellerin-Carlin, T., Fahy, F., Debourdeau, A., Schäfer, M., Pel, B., Kemp, R., Markantoni, M. (2022) Methodology for meta-analysis of energy citizenship. EnergyPROSPECTS Deliverable 3.1, European Commission Grant Agreement No. 101022492.

Annex I: Consent form

This form is to ensure that you have been given information about the EnergyPROSPECTS project (see Information Sheet on the other side) and to provide you with an opportunity to confirm that you are willing to take part in this research. For all of the activities below, please indicate which applies to you:

| | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | I am now familiar with the EnergyPROSPECTS project , I have had the possibility to ask questions and I have received satisfactory answers to my questions before being interviewed |
| <input type="checkbox"/> | As a research participant, I am aware of my right to withdraw participation at any time |
| <input type="checkbox"/> | I give my consent that the interview can be recorded in writing , and analysed by the EnergyPROSPECTS research team |
| <input type="checkbox"/> | I give my consent that the interview can be audio- or video- recorded, and analysed |
| <input type="checkbox"/> | I give my consent to be identified by my organisation |
| <input type="checkbox"/> | I understand that the results of the research will be presented so that no information can be traced to me personally / I have been informed that pseudonymity of participants will be ensured |
| <input type="checkbox"/> | I give my consent that a record of my interview can be safely stored for future reference |
| <input type="checkbox"/> | I give my consent that a picture of me can be used on the social media pages and website of the project |
| <input type="checkbox"/> | I have been informed about who will benefit from my participation |
| <input type="checkbox"/> | I have been informed about how data will be either destroyed or reused at the end of the research |
| <input type="checkbox"/> | I have been informed of the secondary use of data |

Note: Your participation is voluntary. As an interviewee, you do not have to answer all the questions that are asked; you reserve the right to refuse or cease participation in the interview process without stating your reason and may request to keep certain materials confidential. In addition, you have the right to review any summary or synthesis of the interview at any time up until the data is actually published.

There will be no monetary payment for participating in the research, but you will have contributed to a research project that generally aims at developing a broad understanding of energy citizenship as a policy concept, a sociotechnical imaginary, a knowing-of-governance, i.e., social construction of desirable/normal civic agency in future energy systems.

Please, sign below to confirm your consent – digital signatures are permitted:

| | Participant(s) | Researcher(s) |
|--------------|----------------|---------------|
| Name(s) + ID | | |
| Signature(s) | | |
| Date(s) | | |

INFORMATION SHEET

The EnergyPROSPECTS project takes place in collaboration with researchers from Belgium, Bulgaria, France, Germany, Hungary, Ireland, Latvia, the Netherlands and Spain. It is funded by the European Union's Horizon 2020 programme (Grant Agreement No. 101022492).

Description of the Research Programme

EnergyPROSPECTS (PROactive Strategies and Policies for Energy Citizenship Transformation) works with a critical understanding of energy citizenship that is grounded in the state-of-the-art Social Sciences and Humanities (SSH) insights. EnergyPROSPECTS aims to develop a broad understanding of energy citizenship as a policy concept, a sociotechnical imaginary, a knowing-of-governance, i.e., social construction of desirable/normal civic agency in future energy systems. A selection of nearly 600 initiatives and a mapping and typology refinement exercise to demonstrate the depth/breadth of the energy citizenship concept in theory and practice will be performed. **Forty two cases have been selected for in-depth analysis exploring development, evaluation, intermediaries, institutions, governance and ICT in energy systems.** A critical part of the research involves analysing external and internal contextual conditions as they support or hinder energy citizenship in its various forms. Based on the analysis, the project will match suitable models and forms of organisation with different countries, regions and contexts, and we will conduct a citizen survey to appraise the validity of various scenarios and discuss and refine results in citizen workshops and policy forums. This will produce practical policy outputs, which will be revised with policy actors in knowledge exchange workshops.

Purpose of the Interview

As part of this research programme, we would like to pursue in-depth analysis and data collection for analysing 40 cases and yours has been selected for in-depth study. The research team would like to learn more about:

- the conditions that led to the creation, development, ongoing interaction of the selected case with members, or if the case is no longer operational, the reasons for that; we want to identify and understand the relative importance of factors and processes in each case;

- the conditions that support or hinder empowered forms of energy citizenship, at individual, communities of practice and larger societal levels.

The collected information will be used to produce **an online searchable catalogue of energy citizenship cases**. The research will result in academic publications, online blogs, social media, an interactive website, newsletters, events, as well as public communications, e.g. press and policy briefs.

Data Management

All the data for this project is collected and stored in accordance with the General Data Protection Regulation (GDPR) 2016/679 of the European Union, which entered into force in May 2018. The regulation protects individuals regarding the processing and collection of their personal data. All the research materials, including the participants' data will be securely stored for 10 years. After that time period, any personal data collected will be deleted. In addition, data will be deleted at any time on request of the participant. The audio/video-recordings, if authorised by the interviewee, will be deleted after they have been transcribed and analysed, hence they will not be stored for 10 years. At any stage of the EnergyPROSPECTS project, the research participants have a right to gain access to their own personal data, request data correction or limitations to how their data is processed. Participants can also file a complaint about how their personal data is used.

For any enquiries regarding this research, please contact:

Name and institution

Role in the project

Contact information (incl. phone number).