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Energy justice in EU impact assessment

Proposal for guidelines

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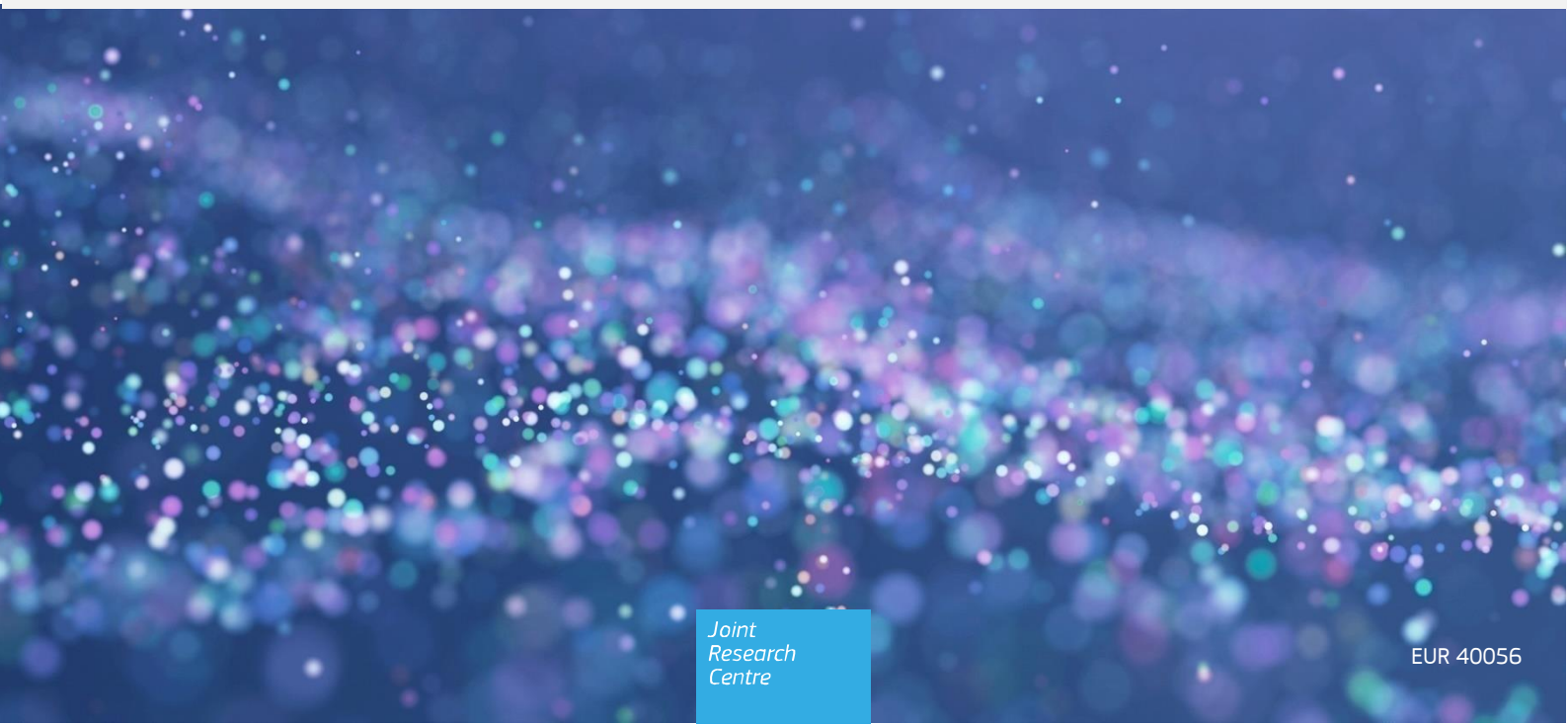

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Contents

Abstract

In order to achieve its ambitious policy goals such as using 40% renewable energy, cutting emissions by 55% or reducing energy consumption by 29% by 2030, the EU must undergo an energy transition which is also just and fair. This will require rapid and drastic changes to the energy system and to society, and holds the risk of potentially negative impacts or unforeseen injustices in society. Despite the persistent rallying call of a just and fair transition in EU policies, there is currently no policy assessment framework for energy justice in the EU. Current policy assessment approaches may fall short since they have been criticised for neglecting social aspects and different types of injustice that may occur as a result of the energy transition. Given that energy systems are socio-technical systems, assessments that take a socio-technical perspective may be more suitable, in particular those that assess policies through the lens of energy justice. Bottom-up and top-down assessment approaches each have particular advantages and disadvantages and can complement each other in order to provide a comprehensive assessment of energy policies. Complementing our recent work in which we developed a bottom-up energy justice framework, in this report, based on the literature, and taking account of current critiques of the EU impact assessment process, we propose a top-down energy justice framework that may be used as guidance for impact assessments on energy-related issues in the EU.

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1 Introduction

1.1 Policy context and background

The Green Deal establishes the goal that no energy consumer should be left behind and advocates for a socially just transition where the risk of energy poverty must be addressed and citizens and workers most vulnerable to the energy transition must be protected[1]. The communication "Shaping Europe's Digital Future" also highlights the twin challenge of a green and digital transformation, and the necessity for every citizen to have "*a fair chance [...] to reap the benefits of our increasingly digitised society*". For this socio-technical energy transition to be successful, it has to be just. However, while a just energy transition is a clear EU policy goal, there is no formalised assessment or reporting on energy justice at EU policy level. Furthermore EU legislation has been criticised for inadequate attention to energy justice principles, in spite of an urgent need for them (EERA, 2023).

Socio-technical systems can be defined as: "*a configuration of technologies, services, infrastructures, regulations and actors (e.g. producers, suppliers, policy-makers and users) that fulfils a societal function such as energy provision*" (Schot et al., 2016). This perspective acknowledges that technology is a social phenomenon and that human knowledge and practices are embedded within technical systems, and circulate within social networks (Cherp et al., 2018). Energy transition policies not only involve choosing energy technologies, prices or emissions reduction targets, they also result in the transformation of our economic and social structures (Proedrou, 2022), as well as changes in consumption and social practices (Strand et al., 2021). This will result in significant social impacts, including impacts on citizen's rights, communities, and how energy systems will be governed. While EU policies consistently indicate ambitions to take into consideration socio-technical issues, the translation of those aspirations into concrete actions remains challenging. Policies that aim to alleviate negative impacts in one area may inadvertently worsen injustices in others. For instance, a recent JRC study (Vandyck et al., 2023) analysed energy justice aspects of climate policies and found that without certain improvements to their design, they may exacerbate energy poverty.

A just energy transition should be one that eliminates existing negative impacts and does not create new ones (Miller et al., 2013). For this reason, it is important to assess the justice implications of energy policies in all of their dimensions. This requires assessment frameworks that use a socio-technical perspective to explain and reveal the broader societal implications of energy system changes (Miller et al., 2015). Using an energy justice lens through which to analyse relevant socio-technical systems may allow us to identify critical parts of the system where energy injustices may occur and ensure that no aspects of the just transition are disregarded (EERA, 2023).

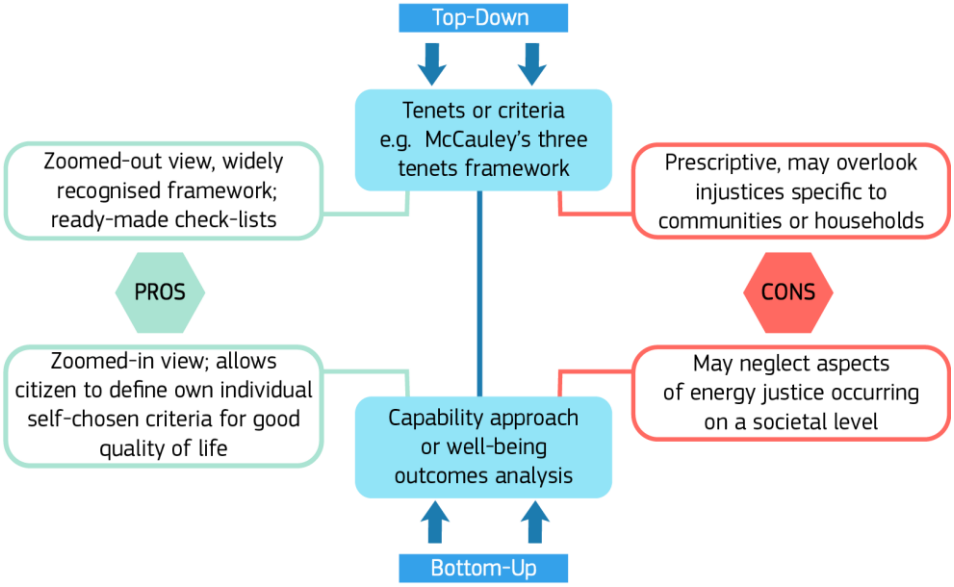
Generally, energy justice approaches can be described as top-down or bottom-up. Criteria may be pre-chosen based on 'expert' or scholarly opinion (top-down) or else defined in a deliberative or participatory manner with those who are impacted by the policy (bottom-up). Both approaches have their advantages and disadvantages (Figure 1) and ideally a combination of both should be used to provide a variety of insights in decision-making. 'Top-down' tenet or principle-based energy justice frameworks such as (Mccauley et al., 2013) or (Sovacool & Dworkin, 2015) have the benefit of providing a broader view of energy justice issues and a ready-made 'checklist' of criteria, for example, for use by policy-makers in decision-making. These can also be used to check whether decision-making processes themselves are promoting energy justice. On the other hand, top-down frameworks have the disadvantage of potentially being too prescriptive, lacking adequate explanation of underlying ethical theories (Wood & Roelich, 2020), too difficult to operationalise or lacking description of the justices or injustices relevant to impacted communities or individuals (Velasco-Herrejon & Bauwens, 2020). Bottom-up approaches are useful for allowing impacted parties to define their own justice criteria through participatory and/or deliberative processes (Velasco-Herrejon & Bauwens, 2020). In our recent work we propose a participatory bottom-up approach to assessing energy justice in energy poverty alleviation projects (Shortall & Mengolini, 2024b, 2024a), where we apply the Capability Approach (CA); a framework for the assessment of individual human well-being, taking into account their needs as well as social arrangements. According to the CA, an individual's "capabilities", meaning what they are able to do in their life, are what measure their quality of life. The freedom to make one's own decisions and to decide what is valuable for oneself allow a person to live their life well (Sen, 1992). The CA hence conceptualises economic

[1] Communication from the Commission. The European Green Deal, COM(2019) 640

and social development in terms of the opportunities of impacted people for living a good life, rather than on material wealth alone.

Figure 1 summarises the pros and cons of top-down and bottom-up approaches. Due to the shortcomings of each type of framework, a pluralistic, complementary approach to energy justice assessment may be appropriate. Using different ethical theories and perspectives to underpin analysis of energy developments can provide guidance for decision-making processes that has a greater variety of normative insights, as well as highlight the values of different groups which may otherwise be overlooked (Wood & Roelich, 2020).

Figure 1: Pros and cons of top-down and bottom-up approaches for assessing energy justice



Source: (Shortall & Mengolini, 2024b)

1.2 Purpose of this report

As previously noted, at the EU level, no formal policy assessment framework for energy justice exists, even though a just energy transition is a policy priority. In this report we aim to begin to address this gap. We focus on providing an energy justice guidance framework for energy-related policies that must undergo impact assessment. Such a guidance framework can help to check whether the policy decision-making process itself is likely to promote energy justice. We develop a 'top-down' assessment framework based on the current energy justice literature and current critiques of the EU impact assessment process.

In our previous work (Shortall & Mengolini, 2024b), we developed a bottom-up approach to assessing energy justice. We developed a framework for assessing the justice outcomes of energy poverty alleviation projects, based on surveys and interviews with householders and project coordinators involved in these projects. These two approaches to assessment, top-down and bottom-up, may be seen as complementary when assessing policies for energy justice.

We carry out a review of the current literature on energy justice frameworks in Section 2. In Section 3 we analyse the critiques and challenges for EU impact assessments in relation to the different energy justice dimensions. We also make some preliminary suggestions for potential tools that may help to address each type of challenge. Based on our analysis, we then propose a tentative/prototype energy justice framework for assessing policies using impact assessment at EU level in Section 4.

2 Energy justice

In the literature, several frameworks for energy justice exist and there is a degree of overlap and mutual reinforcement between all of them. Having the greatest uptake to date, McCauley's framework (Mccauley et al., 2013), with its roots in environmental and climate justice but with a focus on energy, has the aim of providing universal, safe, affordable and sustainable energy. It comprises three dimensions of energy justice (Table 1): distributional justice, justice as recognition, and procedural justice.

Table 1. McCauley's three-tenet framework

Tenet	Description
Distributional justice	(Environmental) burdens and benefits are fairly distributed
Justice as recognition	Characteristics and needs of a community are recognised, individuals are fairly represented, un-coerced and have complete and equal political rights
Procedural justice	Decision-making process is fair, transparent and of high quality; all stakeholders may participate in a non-discriminatory way

Source: adapted from (Mccauley et al., 2013)

In addition, the overarching importance of cosmopolitan and restorative justice have also been recognised and incorporated into the energy justice (Heffron, 2024) as well as the need for consideration of the spatial and temporal nature of impacts (Heffron & McCauley, 2018). Cosmopolitan justice suggests that principles of justice should apply to all humans in all nations, and that our responsibilities do not stop at borders. Hence there is a need to consider the cross border and regional effects of any policies (McCauley et al., 2019). Restorative justice refers to the need to rectify any injustice, intended or unintended, caused by the energy sector. Hence there is a need for identifying foreseeable impacts in advance of policies (Heffron, 2024).

Building on McCauley's framework, Sovacool and Dworkin (Sovacool & Dworkin, 2015)[2], developed an 8 principle decision-making framework (Table 2) which is based on diverse philosophical concepts: virtue, utility, human rights, procedural justice, welfare, freedom, posterity, and responsibility. They propose a decision-making list of eight categories of assessment for energy justice decision-making: availability, affordability, due process, good governance, sustainability (resource depletion), intergenerational equity, intragenerational equity and responsibility. However, since it draws on an wide range of moral theories and viewpoints, this framework may be more difficult to operationalise than the simpler three tenet framework (Velasco-Herrejon & Bauwens, 2020).

[2] This was updated in 2017 (Sovacool et al., 2017)

Table 2. Sovacool & Dworkin's 8- criteria framework

Criteria	Description
Availability	People deserve sufficient energy resources of high quality, suitable to meet their end uses.
Affordability	Energy poverty should be avoided
Due process	Countries should respect due process and human rights in their production and use of energy
Transparency and accountability	All people should have access to high quality information about energy and the environment and fair, transparent, and accountable forms of energy decision-making
Sustainability	Energy resources should be depleted with consideration for savings, community development, and the precautionary principle.
Responsibility	All actors have a responsibility to protect the natural environment and minimize energy-related environmental threats
Intragenerational equity	All people have a right to fairly access energy services
Intergenerational equity	Future generations have a right to enjoy a good life undisturbed by the damage our energy systems inflict on the world today

Source: adapted from (Sovacool & Dworkin, 2015)

The above frameworks have also been criticised for being limited in how they account for unequal power relations and responsibilities in the energy system (Groves et al., 2021; Middlemiss et al., 2019), which is a particularly important consideration for energy poor/vulnerable groups. Including the normative goal of 'energy democracy' (Table 3) while assessing energy justice may be useful in directing energy transitions towards a more balanced distribution of power. While not explicitly defined, in practical terms it refers to an increase in empowerment of the citizen. The role of prosumers, co-operatives or municipalities replaces the role of energy companies, i.e. there is a fairer redistribution of power among energy system actors, and greater participation of citizens (Szulecki, 2018).

Table 3. Szulecki's energy democracy framework

Dimension	Description
Popular sovereignty	Citizens as recipients of energy policy
	Citizens as stakeholders (producers and consumers)
	Citizens as account holders
Participatory governance	Inclusiveness
	Transparency
	Access to information
	Energy education and awareness raising
Civic ownership	Civic ownership of power generation
	Civic ownership of transmission / distribution infrastructure

Source: adapted from (Szulecki, 2018)

3 EU impact assessments and energy justice: what are the potential gaps?

At the EU level, impact assessment[3] is carried out for legislative proposals believed to have significant impacts on society. An impact assessment is a process comprising a structured analysis of policy problems and corresponding policy responses. It develops policy objectives and alternative policy options and assesses their impacts. It also considers subsidiarity, proportionality of options and how to monitor and evaluate the policy in the future. It helps to develop the Commission's policy response to a certain policy problem by providing the evidence base for – and the impacts of – various options. If a preferred option is chosen, it presents the reasoning behind it. The process is presented in an impact assessment report.

The EU's 'better regulation' policy aims to improve the quality of policymaking during the entire policy cycle. Following an Inter-institutional Agreement on Better Law-Making in 2016, the European Parliament, Council and Commission recognised their joint responsibility to deliver high-quality legislation. A common set of principles has been developed in order to ensure the effectiveness, coherence, relevance and efficiency of commission decision-making. According to these (which are detailed on page 8 of the Better Regulation Toolbox[4]), better regulation should feature: embeddedness in policy cycle, high quality, evidence-based, strategic/forward-looking, participatory/open to stakeholder views, respect for principles of subsidiarity and proportionality, comprehensive, coherent/conducted collectively, proportionate, transparent, independent, appropriately resourced and organised and sustainable. The better regulation toolbox includes a number of tools that may be used in impact assessments. However, various challenges have been identified in relation to the ability of the impact assessment process (and associated tools) to fully capture societal impacts and therefore to properly reflect energy justice concerns. We expand on these challenges in the following sections.

3.1 Distributional justice

Some examples of distributional justice challenges of the energy transition in the EU include unequal access to sustainable energy sources, energy poverty, the loss of jobs in fossil fuel related industries in certain regions, the social and environmental impacts of materials extraction beyond EU borders and the possibility of debts for future generations due to the use of large amounts of public funds allocated to the clean energy transition (EERA, 2023). Accounting for distributional justice concerns in policy impact assessment therefore requires the use of methods that measure the distribution of harms and benefits across society as well as the impact on the environment or future generations.

Cost-benefit analysis (CBA), a tool proposed in the better regulation toolbox (Chapter 8) and widely used in impact assessments in the global north, has been criticised for ignoring distributional concerns. Since it is based on the one ethical theory of utilitarianism, it requires aggregating the preferences of individuals to inform policy recommendations (Jenkins et al., 2021). It assumes that the consequences of policy are morally right if the total good outweighs the bad. Using utilitarianism has been widely disputed in the literature since human well-being is shown to encompass numerous dimensions, far beyond utility, e.g. having the basic material needs for a good life, freedom, health, good social relations, and personal security (Millennium Ecosystem Assessment, 2005). The ethical (consequentialist) theory of utilitarianism may not be suited to policy-making with certain moral dimensions, e.g. policies that relate to alleviating inequity or having freedom of choice (van Wee et al., 2014). Assessment methods underpinned by alternative ethical theories like deontology or rule-based ethics may be more appropriate in these cases.

CBA may also result in solutions that are biased toward higher income groups, who may have more influence in a CBA because of their higher willingness to pay (WTP) (Shortall & Mouter, 2021). With regard to future generations, or intergenerational equity, discount rates used in monetary valuation methods tend to range between 3% and 5%, and this is criticized for underestimating the interests of future generations (Wegner & Pascual, 2011).

Other tools in the better regulation toolbox may better address distributional concerns. (Social) multi-criteria assessment (MCA) could be an alternative to CBA as long as it is designed so that participants fairly represent the interests at stake due to the policy. This should include future generations (Saarikoski et al., 2016). Multi-

[3] https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/impact-assessments_en

[4] https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox_en

criteria assessment may correct the utilitarian approach of cost-benefit analysis as it requires the ranking of multiple objectives with incommensurable values. However there are still issues with aggregation and potential power imbalances between participants (Wegner & Pascual, 2011). With regard to cosmopolitan justice, (that could be interpreted as the distribution of harms and benefits across borders), life cycle assessment (LCA) may also be useful for identifying possible environmental impacts that go beyond EU borders (similarly, social impacts if social life cycle assessment (S-LCA) is used). Furthermore, the principles of territorial impact assessment could be integrated from the outset of the assessment to ensure that the distribution of impacts across and beyond EU regions is analysed.

3.2 Justice as recognition

Some examples of justice as recognition challenges of the EU energy transition include a lack of understanding of the underlying socio-technical factors that give rise to injustices (e.g. energy poverty) and hence failure to identify and understand the diverse needs of households affected by them (EERA, 2023). Incorporating justice as recognition concerns into policy assessment therefore requires that these diverse (and sometimes invisible) impacted actors are accurately identified and that there is appropriate measurement of social, environmental and economic impacts of energy transition developments.

As (Munda, 2021) argues*, "A fair policy assessment process should consider the ethical obligation of taking a plurality of social values, perspectives and interests into account".* However, when policy assessments are dominated by quantitative approaches, this means that social impacts which are difficult to quantify, are naturally poorly represented or absent in assessments (e.g. Mottee et al., 2020; Mouter et al., 2015).

Commonly used quantitative approaches like cost-benefit analysis (CBA) are increasingly criticized for failing to adequately deal with the social impacts of policies and there are concerns about their narrow scope (Bellamy et al., 2014; Cass, 2006; Næss, 2006). CBA, it can be argued, does not uphold the tenet of justice as recognition, as it uses standardized models and generic price tags to determine monetary values of policy impact (Jenkins et al., 2021). Values not traded in real-life settings such as biodiversity, friendship, etc, are problematic to measure in terms of private income. CBA assumes that individuals have pre-formed preferences for intangible impacts e.g. such as those on social cohesion or social equity, but this conflicts with evidence from other disciplines e.g. psychology where it is shown that such preferences are formed via interpersonal communication or deliberation (Shortall & Mouter, 2021). Cultural, societal, communal or group values are qualitative or subjective nature and collectively formed via a discursive group process (Kenter et al., 2015). These are more problematic to measure and compare (Geurs et al., 2009; Hickman & Dean, 2018). This is also problematic for logic models, which typically represent certain, limited, fixed values (of the original designers), but may not be equipped to deal with diverse, possibly emergent, public values (Taebi et al., 2016). Such models may be seen as a first attempt to understand a 'system', but may oversimplify complex relationships and dynamic between system components, a significant downside in complex and dynamic policy situations (Nieminen & Hyytinen, 2015).

Assessment methods which deal with non-monetary values and/or allow a level of participation or discussion can offer a solution to the above challenges. Qualitative forms of assessment could complement numbers from models since they can explain factors which are difficult to quantify e.g. behavioural change (Wiese, 2016). As part of the 'Better Regulation Agenda' in 2015, the EC made it possible for citizens and stakeholders to be involved in the law-making cycle, in the hope that this would allow for inclusiveness, reflexivity and transparency (Deligiaouri & Suiter, 2021) However, EU consultation responses have suffered from geographical imbalances, with differences between north and western Europe and the south and east. There is also a limited diversity of participants with unequal representation of interests. Often the consultation process is dominated by corporate representatives, with less participation of civil society, public authorities and research centres, while lay citizens are almost entirely absent (Alemanno, 2020). The reason for this has been presumed to be due to self-selection, but also other barriers to participation such as the complexity of the procedure and high level of knowledge required in order to participate. A further critique is that there is no constructive dialogue between participants (Deligiaouri & Suiter, 2021), which is necessary for determining social impacts that cannot be measured by other means.

In the Better Regulation Toolbox, Tool 69: *Emerging methods and policy instruments* makes reference to "Behavioural Insights" as a means of contributing insight on human behaviour to impact assessments. While this may provide valuable insights on certain impacts of policy related to behaviour, in the context of energy justice, it may not always be the most appropriate tool for assessing social impacts, since depending on how it is carried out, it may not address the above criticisms sufficiently.

Alternative approaches that could help to address these issues include the organisation of deliberative events instead of public consultations (see (Shortall, 2020) for some examples of deliberative methods) or to offer an online platform that allows for deliberation rather than consultation, and that is carefully designed in accordance with deliberative ideals, i.e. inclusiveness, equality and equity, diversity, non-coerciveness, reason-giving, respectfulness, authenticity and reflexivity (Shortall et al., 2022). For more about the design of deliberative online platforms please see (Shortall et al., 2022). If self-selection poses problems, the use of stratified random sampling could be employed to build a mini-public, as it is done in citizens' assemblies, for instance. Participatory methods tend to favour self-selection by participants, whereas deliberative methods use techniques of random selection to ensure a group is representative of the wider population (Shortall, 2020).

Multi-criteria assessment may also address justice as recognition issues. (Munda, 2004), for instance, has proposed social multi-criteria analysis (SMCA) to tackle decision problems that represent a public choice. He argues that social problems are multidimensional and the evaluation of public plans or projects should be based on procedures that explicitly require the integration of a broad set of various and conflicting points of view. However, as (Dean et al., 2019) points out, MCA involving stakeholders can vary greatly along a spectrum from analyst-led to fully participatory. Participants may be experts, citizens or stakeholders chosen by the organisers. Furthermore, the need for the integration of a transparent, participative dialogue process among stakeholders in MCA has been increasingly acknowledged (Baudry et al., 2018; Macharis & Bernardini, 2015; Saarikoski et al., 2016).

3.3 Procedural justice

Some examples of procedural justice challenges in the EU energy transition include a shortfall of inclusion of citizens in the policy making process, barriers to participation in energy decision-making for certain social groups, and a subsequent lack of social acceptance (or acceptability) of new energy developments (EERA, 2023). Dealing with procedural justice concerns in impact assessments therefore requires high quality, well designed decision-making processes, ensuring the inclusion of citizens in both the design and execution of the process and the incorporation of citizen voices into policy itself.

Non-participatory tools found in the Better Regulation Toolbox may not be sufficient in themselves for upholding procedural justice. For instance, CBA, as a policy assessment tool, it can be argued, does not uphold the tenet of procedural justice because citizens are not involved in designing or carrying out a CBA study (Jenkins et al., 2021).

The commission has launched various participatory frameworks in an attempt to promote more open and participatory models of governance *(e.g. Plan D 2005; the 'White paper on a European Communication policy' 2006; the European Citizens Initiative introduced by the Lisbon Treaty in 2009).* However, shortcomings of the consultation process have been acknowledged in a communication from the commission, where the need for higher quality of questionnaires, more clear explanations of how results are taken into account and a wider range of consultation approaches were identified[5]. The available public consultation tools used for gathering stakeholder inputs for impact assessments have been criticised for being one-way, with little chance for interaction or free input, without constructive dialogue (i.e. not deliberative) and a lack integration of the outputs to policymaking, since there are no clear obligations about how to consider comments or explaining their impact on the policy process (Deligiaouri & Suiter, 2021).

In a report by the European Court of Auditors on the 'Have Your Say' portal, various problems were identified that may lead to a low rate of participation, in particular by ordinary citizens[6]. The procedural identified issues included in the report:

- No specific monitoring or assessment of consultation processes (e.g. with indicators) at Director General or commission level
- Unclear objectives and outcomes of public consultations i.e. how outputs would be used, leading to tokenism or lack of motivation among citizens
- Lack of information about complementary consultation activities or their purpose

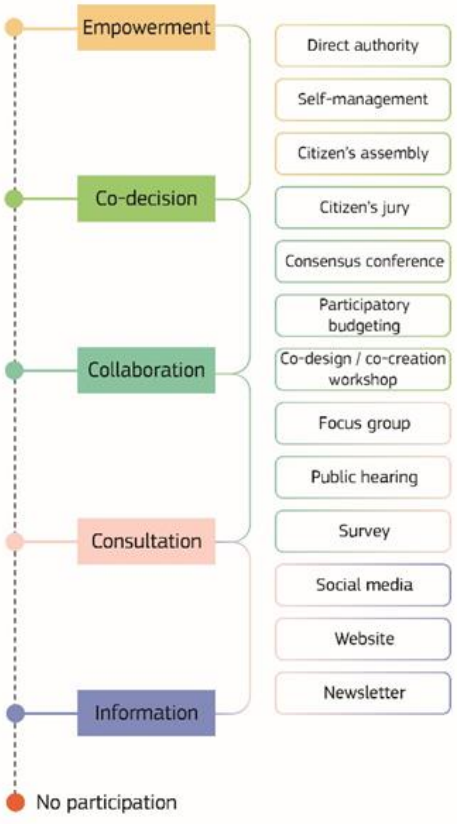
[5] European Commission. (2019). Better regulation: taking stock and sustaining our commitment (COM(2019) 178 final).

[6] European Court of Auditors. (2019). "Have your say!": Commission's public consultations engage citizens, but fall short of outreach activities. 14, 85.

- Choice and extent of communication methods and channels not explained or justified
- Insufficient advertising of consultation activities via diverse channels
- Preparation and publication of consultation strategies not always well-prepared e.g. have your say roadmaps, time for feedback before the public consultation itself
- Consultation strategies not always published (showing scope and objectives, identification of stakeholders, consultation activities planned, etc)
- Timeframe/timing for consultation not always appropriate
- User unfriendliness - questionnaires too long or complex, e.g. related to technical information without targeting non-specialists separately
- Insufficient feedback for respondents and limited publicity given to results
- No evidence of how feedback is taken into account for consultation strategies
- Data not always put into context – e.g. campaigns not identified or self-selection of respondents may not be representative of the EU
- No assessment of whether public consultations achieve their objectives

With regard to the level of engagement or participation during impact assessments, policy-makers may choose from a range of approaches (see Figure 2 (based on (Shortall & Mengolini, 2023)) for some examples taken from our previous work on engagement approaches (Shortall & Mengolini, 2023). Public participation (in policy making) can be understood as taking place on different levels (Arnstein, 1969) with consultation falling around the middle level and power transfer to citizens increasing at higher levels, often requiring the use of formal deliberative processes (e.g. citizen's juries, citizens assemblies, etc.). Consultation alone may not be sufficient depending on the type of policy context and other types of participation or deliberation may be needed to enhance justice (Fung, 2006). We therefore focus on the potential benefits of deliberation for enhancing energy justice in this report.

Figure 2. Level of engagement and example of methods (Shortall et al., 2023)



Source: Shortall et al, 2023

Providing well-designed in person deliberative events (see Shortall, 2020) or events on purpose-built deliberative platforms (see (Shortall et al., 2022) in place of current consultation platforms may help to remedy some of the above issues. Deliberative events, when properly organised, have clear objectives, clear and transparent selection procedures, a learning phase whereby participants receive various types of information and have adequate time to ask questions, absorb and deliberate, as well as access to facilitators to aid with discussions and any other issues. Deliberative events also involve a phase of decision-making whereby participants output is synthesised into a report or recommendation that is potentially incorporated into policy-making. This means that the impact of the deliberation (or lack thereof) on policy is easier to identify.

The EU Green Deal has stressed the need to involve people in deliberations around energy and climate issues both at national and transnational levels[7]. It does not, however, explain how these should inform formal legislative procedures, or how their outputs will impact energy policy (Proedrou, 2022). This should be clarified in formal guidelines for impact assessments to enhance procedural justice.

3.4 Summary of alternative tools for addressing energy justice concerns

Table 5 summarises, based on the previous sections, some alternatives to the more commonly used tools due to their suitability for addressing distributional, recognitional or procedural justice concerns.

[7] European Commission. (2019). Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal, Brussels, 11.12.2019. COM(2019) 640 final, 1–24.

Table 4. Summary of example methods to promote energy justice in impact assessment

Energy justice dimension	Challenges to incorporating into impact assessment	Potentially helpful assessment methods or tools	Reasoning
Distributional	Appropriate measurement of distribution of harms and benefits as well as the impact on the environment or future generations.	Multi-criteria assessment (MCA)	May correct the utilitarian approach of cost-benefit analysis as it involves ranking of multiple objectives with incommensurable values.
		(Social) Life-Cycle Assessment Territorial impact assessment	May allow identification of possible environmental/social impacts that go beyond EU borders
Recognitional	Appropriate identification of diverse (and sometimes invisible) impacted actors Appropriate measurement of social, environmental and economic impacts of energy transition developments. Includes values that are diverse, intangible, non-monetary or socially formed (e.g. privacy, autonomy, trust, transparency, safety, social cohesion, etc..)	Multi-criteria assessment (MCA)	Allows for multidimensional decision-making with integration of a broad and /or conflicting points of view.
		In-person deliberative events or online deliberations	Selection process may promote inclusion and diversity May be more appropriate when dealing with socially formed values
Procedural	High quality decision-making processes Inclusion of citizens in both the design and execution of the decision-making process and the incorporation of citizen voices into policy itself	In-person deliberative events or online deliberations	May promote higher quality decision-making process May promote inclusiveness, diversity equality and equity, non-coerciveness, reason-giving, respectfulness, authenticity and reflexivity in the decision-making process

Source: JRC, 2024

4 Proposal for energy justice assessment framework

Based on our synthesis of the energy justice literature (Section 2) and the critiques of current impact assessment methods (Section 3), in Table 5, we outline an energy justice assessment framework and key points of enquiry when carrying out EU impact assessments on energy-related issues. While for ease of use we name our energy justice dimensions according to the three tenets proposed by McCauley, we also incorporate elements of other existing frameworks into these dimensions as we see fit. This includes the overarching principles of cosmopolitan justice and restorative justice and spatial and temporal aspects. We provide a detailed description of each dimension and what it calls for in a general sense. We recognise that there are in practice overlaps between the dimensions. We then outline key points of enquiry for impact assessments and some potential indicators for each justice dimension. These are by no means exhaustive and may be expanded upon or modified as appropriate. In their current form they are intended only as guidance for impact assessment of energy-related policies.

Table 5. Proposed energy justice assessment framework for EU energy-related impact assessments

Energy justice dimension description	**Key points of enquiry**	**Potential indicators**
Distributive justice: Refers to **where** injustices occur, i.e. the **distribution** of benefits, harms or **responsibilities** due to developments in the energy system. Calls for (environmental) burdens and benefits to be fairly distributed across society, **borders** and **generations**. Any injustices should be **rectified**.	*How are distributional issues accounted for (if at all)?* *How are injustices to be rectified?* *How are future generations considered in the assessment?* *Is the impact on the environment considered? How?*	Use of appropriate methods to measure distributional aspects Plans for rectification of injustices where they may occur Use of future-looking methods or foresight, taking into account impact on future generations (if required) Use of environmental impact assessment
Justice as recognition: Refers to who might be ignored, i.e. the fair **representation** of individuals within the energy system, as well as their right to political **participation** e.g. taking account of **divergent perspectives** due to culture, gender, ethnicity, etc. Calls for **characteristics** and **needs** of a community to be recognised and individuals **included**, un-coerced and **empowered** in decision-making	*Is there diversity of participants, representing a plurality of viewpoints/values?* *How are stakeholders identified?* *Are all relevant types of value measured – i.e. economic, social and environmental?* *Is the valuation method appropriate to the values in question?*	Details of stakeholder types and representation of interests is reported and corresponds to diverse perspectives/interests at stake Geographical distribution of stakeholders is reported and corresponds to impacted regions Choice of stakeholder selection method (self-selection or other) is clearly justified and explained A range of values (monetary and non-monetary) are assessed Choice of valuation method is clearly justified and explained
Procedural justice: refers to whether or not there is **fair** (due) process, that **engages** all stakeholders in a **non-discriminatory** way Calls for decision-making processes to be **equitable**, **transparent** and of high quality	*Which channels of advertising are used to promote the engagement process?* *How easy to use are platforms for stakeholder participation?* *How much access to information is given and when?* *Is information understandable, easy to follow? Does it cater to different types of stakeholder?* *How clear are the objectives of stakeholder engagement?*	Channels of advertising are appropriate to target the relevant stakeholders (e.g. based on age group, background, etc.) Stakeholders give favourable evaluation of the ease of use of participation platforms; the clarity of engagement objectives and the use of their inputs. The level of stakeholder engagement chosen is clearly explained and justified

	How clear is the intended usage of the inputs of stakeholders? *Is there feedback to citizens and reporting of results?* *How is public input incorporated into the decision?* *Is there a means for the public to question decisions and policy choices?*	The needs of different types of stakeholders are catered for during the engagement process Stakeholders have adequate time to become informed and participate in the process Feedback mechanisms are in place to explain how inputs were incorporated into decisions and for the public to pose questions about the decision The use of public input in decision-making can be clearly traced and explained

Source: JRC, 2024

5 Conclusion

Energy justice criteria are needed to guide various levels of governance in the energy transition. The framework we propose in this report is intended to give policy-makers a guideline for including energy justice concerns when carrying out impact assessments on energy-related issues. As such, these guidelines can help to promote energy justice at the level of the EU legislative process. Different guidelines will be needed to govern other levels of decision-making.

We acknowledge that certain elements of the framework as it stands are open to interpretation. For example, some indicators refer to 'use of appropriate methods' (for measuring distributional aspects), or ask if the valuation method is 'appropriate to the values in question'. We realise that policy-makers may require additional guidance with regard to potential (valuation or assessment) methods that could be used in an impact assessment.

The Better Regulation Toolbox contains various potential tools that may be used in an impact assessment. We argue that some of these tools are more appropriate than others for addressing energy justice issues. In Section 3 we do provide some examples of tools currently presented in the Better Regulation Toolbox that may help to address energy justice issues. We recommend however that policy makers do not limit themselves to the tools presented in the Better Regulation Toolbox when assessing social impacts. We therefore describe some alternatives to the more commonly used tools due to their suitability for addressing distributional, recognitional or procedural justice concerns. Table 4 provides a summary of these tools or methods. However, this is not to say that our suggested alternatives are the best ones, and that more suitable tools do not exist. Each impact assessment is unique and requires reflection on the most appropriate tools for the job. As well as this, a holistic view of the impact assessment should be taken and tools chosen that address as many of the energy justice concerns as possible. Sometimes a combination of tools may be required. A more comprehensive description of the pros and cons of various tools in different assessment situations is outside the scope of this report but may be the subject of future work.

Finally, it is important to recognise that impact assessment is only one part of the EU legislative process and merely informs the final decision to adopt a legislative proposal, which is ultimately made by EU lawmakers, the Parliament and Council. In some cases deemed particularly urgent, impact assessment is not performed at all (e.g. the Net Zero Industry Act[8]) While we can make recommendations on how to enhance energy justice via impact assessments, the entire decision-making process for adopting new legislation would also need to be examined to ensure that energy justice principles are upheld.

[8] https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747903/EPRS_BRI(2023)747903_EN.pdf

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List of abbreviations and definitions

Abbreviations	Definitions
CA	Capability Approach
CBA	Cost Benefit Analysis
EU	European Union
JRC	Joint Research Centre
LCA	Life-Cycle Assessment
MCA	Multi-criteria assessment
S-LCA	Social Life-Cycle Assessment
SMCA	Social Multi-criteria Analysis

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