Government
Office for Science

Principles for navigating the social aspects of grid transformation

September 2025

Image source: Unsplash

This publication is available at www.gov.uk/official-documents

Any enquiries regarding this publication should be sent to us at Government Office for Science, 100 Parliament Street, London, SW1A 2BQ.
Email: climate@go-science.gov.uk

This is not a statement of government policy

This is not a statement of government policy

Contents

Executive Summary

This document sets out **eight broad principles** for navigating the social aspects of the accelerated transformation of electricity grid infrastructure in the journey towards net zero, energy security and lower energy bills. The principles present a summary of published academic literature and evidence, with sources and case studies cited. They were developed collaboratively by a diverse community of practice made up of people who work on or research UK electricity grid infrastructure. These principles do not reflect UK government policy or official positions.

Accelerating the electricity grid transformation is not just a technical challenge but also a societal one. Changes in net zero infrastructure (including but not limited to the grid) are facing issues of opposition and lack of trust. People's reactions or responses to net zero actions are a risk to delivery comparable to workforce shortages, supply chain resilience, the cost of the transformation, and others.

These principles are interconnected and work together. They highlight the social dimensions at the heart of both the issues and potential solutions around effective, sustained, accelerated grid transformation. They underline the need to draw evidence and insights from both social sciences and technical sciences.

The principles are ambitious and aspirational, and are not specific to places, policies, or parts of the system. They are therefore necessarily wide in scope. They are intended to act as starting points towards shared understandings and objectives when developing policy or strategy, as opposed to operational guidance.

Evidence suggests that adhering to these principles can generally facilitate smoother processes and build legitimacy for the broader net zero agenda. Some projects in sensitive locations may still face significant challenges or even not be achievable at all. However, observing these principles may help prevent local disagreements from escalating into wider resistance to energy decarbonisation. Additionally, following these principles may help ensure that polices are based on real-world impacts and experiences.

The Principles

1. Engagement should be two-way
2. Engagement must start as early as possible and not be one-off
3. Place-specific knowledge and emotions should be valued
4. The language and framing of different groups matter
5. Fairness and justice involve impacts, benefits, and representation
6. Compromise will be needed
7. Transparency is key to developing trust
8. A joined-up framing and long-term approach offers multiple benefits

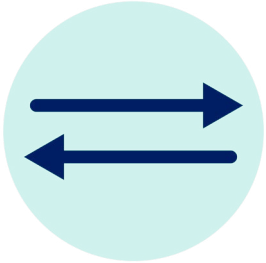
Figure 1: Individual icons for each of the eight principles

1. Engagement should be two-way

Listening to diverse public voices can improve grid changes by accounting for local factors and peoples' needs and attitudes.[1] This can strengthen and broaden buy-in and demonstrate transparency,[2] so long as the purpose of engagement is clearly laid out.[3,4] Evidence shows that the public are more likely to buy-in to changes if processes are transparent, and if 'people like them' have been involved in their development.[5,6,7] Examples of two-way engagement are focus groups, workshops, consultation, citizen juries and panels.[8,9] These methods should be used as part of a tailored approach, and not one size fits all. Substantive two-way engagement that involves both informing and listening is needed at the local,[10] regional,[11] and national levels.

The framing of engagement matters. A focus on using engagement to reach 'acceptance' can be perceived as predetermined, manipulative, or insincere,[12] especially when it appears to be aimed at convincing people, rather than genuinely involving them. Instead, moving toward a framing of 'working with' people or 'co-design' on bigger questions of values and interests may be the most effective approach. Two-way engagement is an essential complement to the more one-way engagement efforts needed at the national level that communicates a compelling national vision and narrative justifying the need for changes in the grid, prior to engaging at local or project level. Both forms of engagement work best when using clear, jargon-free terminology and language.

Neither one-way nor two-way engagement is a silver bullet for getting changes, projects or policies approved or improving existing policies. Engagement with people can mitigate the risk of protest and delay, but it also has wider potential benefits regarding satisfactory outcomes (i.e. the opportunity to tailor changes or benefit schemes to local needs) and a grid transformation that is as fair as possible **(see Principle 5)**.[13] Under certain conditions, two-way engagement can also build trust, which is important given low levels of trust in politicians and industry[14], and enable learning between all parties involved.[15] These additional benefits can be overlooked if reaching a decision as quickly as possible and securing 'acceptance' for grid changes are the primary objectives of engagement.



2. Engagement must start as early as possible and not be one-off

Engagement must begin as early as possible, ideally before critical decisions are made, and continue throughout a project or development. There is a need for rapid changes in the grid[16] and urgent action to reach net zero targets. This sense of urgency and of not having the luxury of time may risk public engagement being reduced, since it can be perceived as a slow process. Public engagement is indeed a comparatively slow process and there is a limit to the extent to which it can be accelerated if it is to be successful[17] hence the need to start early.

However, proceeding with infrastructure changes without first developing as much consent, trust, and legitimacy as possible may appear faster initially, but will likely result in protest or conflict, ultimately making the process slower in the long-term.[18] This may delay grid transformations and can lead to a loss of trust, which spills over into other areas (beyond the grid), and which takes a long time to rebuild.[19]

Building trust requires trustworthy behaviours and actions[20] at all stages of the grid transformation. This requires institutions to pay attention to trust, fairness and effectiveness, which must go hand-in-hand[21]. The relationships between people and decision-makers and grid stakeholders is a cross-cutting factor between the principles. Thus, acknowledging the urgency of targets can mean investing the time and resource to understand the extent of acceptability, to consult people and to build consent, trust, and legitimacy. This allows infrastructure changes to be 'de-risked' of unintended consequences and to get them right the first time.

For these reasons, engagement should start as early as possible ideally upstream of the critical developmental decisions being made,[22] and should consider what other engagements have already been made.[23] The desire to wait to begin engagement until major details are confirmed is understandable (and there is always a balance to be struck on timing), but this can create an information vacuum that risks rumour and misinformation and may damage trust. Early engagement can, where possible, also work to mitigate the concerns of those who are impacted, can specify any benefits involved (including but not limited to community benefit schemes – **see Principle 8**), and can clarify the range of options that have been pursued (and eliminated) and why. Ideally engagement should not only be early; it should also consider the long-term and, if appropriate, extend beyond decisions being reached, to maintain trust and the willingness of people to engage or be engaged.

3. Place-specific knowledge and emotions should be valued

Many individuals and groups are highly knowledgeable of the grid or possess highly relevant knowledge of the local, regional and national dimensions of energy, climate change and net zero. Recognition of this place-specific knowledge should be the starting point for engagement.[24]

Engagement at any level should avoid the assumption that people are simply 'rational' decision makers that need to be given more or better information, and that this will automatically result in improved outcomes for people or project.[25] There is limited evidence that more technical information of any kind will change public attitudes.[26,27] There will certainly be information that can and should be provided to different groups, yet some groups may already possess this knowledge.

Regardless of levels of technical knowledge, people possess important local experience or tacit knowledge about the places they live, their histories, and realities of daily lives. [28,29] People also hold a range of often overlooked emotions (such as pride, fear, interest, and many others) about the grid or energy infrastructure and the institutions involved, and these emotions play an important part in the success of transitions or changes.[30,31]

These knowledges and emotions exist before engagement starts **(see Principle 1)** and influence how or if people have trust in the organisations and institutions involved. They should be respected as far as possible and be used to shape better policy and infrastructure decisions.[32] This might be guided by adopting the ethics of care,[33] which broadly means being informed by ethical principles in the way we interact with people, and which encourages curiosity to understand their reality and their perspectives. This might particularly be facilitated by collaborating with local representatives and liaison officers who can help build strong, trust-based relationships **(see case study 1)**.

4. The language and framing of different groups matter

Care needs to be taken around the language used to talk about people and communities. Phrases such as obstructionist, blockers, NIMBY's,[34] can risk derailing engagement before it has begun. Often, not everyone will be happy about the changes, and there may be groups of people who seek to block the proposed changes. However, many communities have valid and reasonable concerns about infrastructure change based on attachment to place (among other factors).[35] To frame the coming challenge as a 'battle' between people either enabling or blocking undermines the chance to bring those groups to the table and to improve interventions as far as possible, using engagement or otherwise. The language and framing of other groups of stakeholders (from industry to local government) also requires care. For example, using neutral, descriptive terms rather than judgemental labels can help maintain constructive dialogue.[36]

At the same time, it might be helpful to acknowledge that conflict cannot be avoided entirely and may not be a bad thing so long as conflict resolution can be achieved, itself requiring specific skills and resourcing,[37] rather than hoping conflict resolves itself or goes away (see **Principle 6** on compromise and **Principle 7** on resourcing and transparency).

5. Fairness and justice involve impacts, benefits, and representation

The changes in the grid will have very diverse impacts on different groups and the benefits of the changes will also be distributed unequally. The evidence suggests that without action, these impacts and benefits may reinforce pre-existing inequalities.[38] The scale of grid transformation needed has not been seen since the 1950s and so the proposed changes are also a unique opportunity to address certain inequalities.[39]

A range of community benefit options exist to compensate those who are impacted and ensure benefits are shared with local communities.[40] These can include community funds, discounted electricity schemes, job creation, and local or regional economic benefits.[41] Community benefit schemes should be designed in response to community needs, rather than being imposed, and be managed by the community in the long term.[42,43] These schemes require careful application to ensure the fair distribution of impacts or benefits and are a valuable piece of the puzzle, but do not offer a guarantee of success in terms of ensuring local consent.[44]

Another equally important type of justice or fairness involves whose voice, knowledge, and perspectives are represented or valued and how this is reflected in the way the process of grid changes is planned and enacted.[45] This involves the diversity of groups and voices consulted and represented, and who stands to benefit the most, with clear paths for compensating 'losers', ideally co-constructed with the people affected.

Perceptions of fairness and justice vary between people, across different places and backgrounds. There is no uniform 'fair' - which complicates matters. That said, perceptions of fairness are strongly influenced by who owns and profits from changes to the grid. While the National Grid owns and operates the grid transmission lines, these are connected to electricity generation sources that have different models of ownership which have different effects of perceptions of fairness and trust.[46] Regardless, fairness is a key determinant to the acceptability of change and these perceptions, including of what fair means, vary between people and places.[47,48] Close attention must be paid to fairness and rights,[49] but not just the perception of fairness, as mentioned in **Principle 1**, actions that prioritise the appearance of fairness can result in a greater loss of trust.

6. Compromise will be needed

Compromise, which is agreement by mutual concessions reached by all sides, will be needed. It will not be possible to please everyone and there cannot be negotiation on certain things. For example, the locations and forms that infrastructure can take are only partially changeable. Regardless certain groups may protest, even if they are not directly impacted. Compromise is not about 'giving in', it should be as reciprocal as possible between those proposing the changes and those being impacted. If it is only those who are impacted who are expected to compromise, then agreement is unlikely to be forthcoming. At the same time, if perfect agreement or consensus is the goal, then any engagement will likely either be rejected as unrealistic or judged as a failure.

Evidence has shown that two-way engagement encourages compromise, even if the outcomes do not (or cannot) substantively change (e.g., pylons are still placed in the same location).[50] Disagreement and difficult trade-offs and choices should also not be ignored or shied away from, so plans to engage with people must not let perfect be the enemy of good. Appropriate governance structures are important to facilitate compromise since governance is how organisations make, oversee, scrutinise and are held accountable for decisions. If parties disagree with a decision but can see that there has been careful consideration of their perspectives as part of a transparent process that is open to scrutiny **(see Principle 7 below)** and includes the means to create accountability by those proposing the changes, then compromise and reaching acceptance is most likely.[51,52] Possible changes made in compromise could be, for example, changing pylon design or the configuration of community benefits.

7. Transparency is key to developing trust

The rationale and process of engagement should be as transparent as possible from the outset, particularly about the extent to which people can effect change. It should establish clear processes where information is shared openly.[53] People want and need to know what the practical results of any engagement will be, how their views will be considered and what impact this will have. This information needs to be documented, which could also help influence and inform future engagement.

Transparency also extends to being honest about any causes of delay. This connects to the concept of trust and trustworthiness mentioned in **Principle 2** and the messy nature of the process.[54] As noted above, this means not necessarily shying away from disagreement, the resolution of which requires a specific skillset and a defined resourcing budget to manage engagement.[55]

8. A joined-up framing and long-term approach offers multiple benefits

The changes that people will see and experience in the grid should be connected to other local, regional, national,[56] and international plans and actions relating to the grid.[57] For example, how a new pylon fits into a bigger system, and the connection between transmission, distribution, and consumption. Linking specific grid changes to larger issues, processes, and opportunities within and beyond the energy system will be equally important. A long-term approach can also present a vision of the future beyond the 2030 Clean Power target. Disproportionately focusing on near-future targets risks missing the longer-term implications of grid transformation and the benefits of electrification and net zero.

Changes that are presented in relation to a single framing or justification (like climate change targets) are less likely to be accepted or successful; conversely, changes that relate to multiple concerns are more likely to be successful.
For the grid, this can include energy independence and national security, local jobs, air quality, biodiversity, climate change adaptation, among many others. Engagement with communities regarding powerlines has already invoked complex debates about the trade-offs between protecting high yield agriculture and food security; protecting biodiversity, protecting the visual landscape, avoiding traffic congestion, wanting investment that brings jobs, fear of health risks, impact on tourism, loss of space for leisure and sport, among others. Therefore, both the changes that people will experience and the more immediate or tangible benefits that are on offer (such as bill discounts, community payments or other schemes[58]) should be presented within a joined-up approach at all levels, including in relation to trade-offs. Equally, any public engagement should be understood as connected to a wider system of public engagements across different issues, organisations, and sectors. Simply put, people are already exposed to and interact with a wide range of related content, topics and projects so engagement is influenced by what people have already seen, heard or done - no engagement starts from a blank slate.[59]

Engagement must be sustained during the changes to be effective.[60] One-off engagement which is not maintained or followed up often leads to a loss of trust, which is hard to recover from and misses an opportunity to capitalise on people's willingness to engage.[61] However, this does not mean that there is no 'endpoint' or that that the frequency or depth of engagement remains the same throughout the process. People do not want to be consulted on every single detail or decision. Considering the long term also means building in reasonable limits and milestones (including entering the planning system) to avoid over-consulting or making excessive demands on people's time and attention.

Finally, a long-term approach should equally apply to the past, and a more historically informed understanding of places and people would be helpful to understand the social dimensions of grid transformation,[62] for example with past experiences or memories of de-industrialisation.[63]

Case Studies of the principles in action

1. Learning from local perspectives in the Northwest

In the Northwest of the UK, historical decisions regarding energy infrastructure have fostered a sense of disengagement among local communities, particularly concerning the perception of electricity pylons. From the locals' point of view, this detachment is exacerbated by the central role of non-local experts and decision makers whose perspectives may not align with local or regional values, leading to feelings of marginalisation, exclusion and a lack of recognition of local concerns. For instance, residents in areas like West Cumbria have voiced their opposition to the proposed installation of pylons which were first suggested in 2007, expressing the opinion that their views are being overlooked by energy companies and their feeling that the consultation process seemed predetermined, leaving little room for genuine local input.

Place-specific engagement strategies that resonate with the unique historical and cultural contexts of these communities could help to address this disengagement. Research suggests that employing local liaison officers who are familiar with the region and utilizing non-technical language can bridge the gap between energy providers and residents. This approach fosters trust and ensures that infrastructure developments are sensitive to local sentiments and needs.

Principles which are particularly evidenced by this case study:

Place specific knowledge and emotions should be valued

A joined-up framing and long-term approach offers multiple benefits

Language and framing of groups matter

More information: Queen, C. (2021)

2. Community engagement and benefit schemes in Ireland

The North South interconnector is a proposed electricity line connecting the power grids of Northern Ireland and the Republic of Ireland. Along with other grid changes in Ireland under the 'Grid25' proposals, this ran into difficulties including facing opposition from local communities where the electricity lines would pass overhead. There was a disconnect between the national policy and statements that framed the interconnector as a technical necessity for grid stability and market integration, versus local narratives focused on visual intrusion, health concerns, and fairness—especially regarding the decision to build it as an overhead line rather than underground. As a result, local residents perceived that consultations with developers had failed to genuinely value local perspectives and that the engagement had used unclear or inaccessible technical language.

These social and political challenges led to a process of learning inside Eirgrid - Ireland's electricity transmission system operator - and significant changes to their approach in terms of how they conceptualised public and community engagement for new grid lines. One example of this new approach was the community engagement surrounding the 24 km long Mullingar to Kinnegad transmission line. Energised in March 2017, the project was initiated to address the limitations of an existing line. Anticipating local opposition, EirGrid proposed a Community Support Fund to benefit impacted communities by providing grants for initiatives like music, sports, childcare and senior services. The fund was developed by listening and responding to the comments of local stakeholders who had place-based knowledge that EirGrid did not possess. This included local perspectives on how to draw community boundaries (who should be included and how that is determined) in a way that recognised the value and importance of local knowledge, leading to fairer outcomes when considering who is impacted or benefits. Through this, a compromise was struck in the development of a fund that met the needs of the community and the aims of EirGrid.

The initiative was generally well-received by local communities, highlighting the importance of inclusive governance, transparency, and recognition of local values in infrastructure-related compensation. It also draws attention to the need for early, meaningful, and two-way engagement in energy projects which uses clear, transparent and jargon-free communication.

Principles which are particularly evidenced by this case study:

- Place specific knowledge and emotions should be valued
- Engagement should be two-way
- Engagement must start as early as possible and not be one off
- Fairness and justice involves impacts, benefits and representation
- Compromise will be needed
- Transparency is key to developing trust

More information: Devine-Wright and Sherry-Brennan, 2019; Mullally and Byrne, 2015; Report and EirGrid brochure

3. The Dutch Citizen Assembly on Energy

The Dutch Citizen Assembly on Energy (Inwonerraad Energie, IRE) was a series of discussions held in early 2023 among 75 Dutch citizens about the future energy landscape of the Netherlands and what key pre-conditions they would set for the Dutch energy system in 2050. In contrast to many other citizen assemblies, this focused on defining policy pre-conditions without asking citizens for specific decarbonization measures. The assembly involved a demographically, politically, and socially diverse group of citizens in decision-making processes related to energy transition and power grids. Participants expressed a strong desire to be involved in decision-making and wanted other members of the public to be involved as well. The assembly produced a series of recommendations about the energy transition which were well received by the public who found the assembly's recommendations acceptable, ranking access to easy-to-understand information about energy decisions as the most important recommendation. The assembly emphasised the importance of dialogue, diversity, deliberation, and transparency in who has decision-making power.

The Dutch Citizens Energy Assembly provides valuable insights into the social dimensions of two-way engagement in energy transition processes. It highlights the potential use of involving citizens in decision-making to foster acceptance and support for energy policies. The lessons from the assembly particularly underscores the need for transparent and inclusive processes that consider a wide range of perspectives, and which explicitly recognise emotions and values rather than emphasising facts or technical details. Additionally, the assembly's findings suggest that providing easy-to-understand information about energy decisions is crucial for gaining public support. Note: there is also a broader Dutch Climate Citizens' Assembly which began in 2025.

Principles which are particularly evidenced by this case study:

Place specific knowledge and emotions should be valued

Engagement should be two-way

Transparency is key to developing trust

More information: a) **The outcome report**, b) Scientific literature **1**, **2**, **3**

References

[1] Bedford et al (2023) Going down the local: the challenges of place-based net zero governance
[2] IEECP (2024) Public Engagement for Energy Infrastructure
[3] ACCESS (2024) Making a Net Zero Society: Follow the Social Science
[4] 3Ci (2024) The path to net zero: three steps for effective community engagement
[5] Analysis of the National Infrastructure and Construction Pipeline 2023
[6] NissanSka et al. (2024) Role of the built environment stakeholders in climate change adaptation.
[7] Government Office for Science: Net Zero Society Report 2023
[8] The action catalogue of engagement methods
[9] Participedia – a database of participatory methods
[10] Britton (2024) Local, regional and community energy systems: energy planning across scales
[11] Including local government, organisations, business, civil society, etc.
[12] For a review of the development of framings of acceptance see Batel (2020) Research on the social acceptance of renewable energy technologies: Past, present and future and Ryder et al (2023) Do the ends justify the means? Problematizing social acceptance and instrumentally-driven community engagement in proposed energy projects
[13] Verfuerth et al. (2023) A people-centred approach is needed to meet net zero goals.
[14] Aas et al. (2014) Public beliefs about high-voltage powerlines in Norway, Sweden and the United Kingdom: A comparative survey. Energy Research and Social Science
[15] Dietz & Stern (2008) Public participation in environmental assessment and decisions making
[16] Accelerating electricity transmission network deployment: Electricity Networks Commissioner's recommendations
[17] DEFRA (2022) Review of Public Engagement
[18] Brisbois & Cantoni (2025) Coping with decarbonisation: An inventory of strategies from resistance to transformation, Global Environmental Change
[19] Rohse et al (2024) Prioritise Inclusive, Early, and Continuous Societal Engagement to Maximise the Benefits of Geothermal Technologies
[20] O'Neill (2018) Linking trust to trustworthiness, International Journal of Philosophical Studies
[21] British Academy (2025) Governance to Accelerate Net Zero, and see Net Zero Governance: Evidence Hub for more resources
[22] Institute for government (2018) How to transform infrastructure decision making in the UK
[23] UKERC (2024) Public Engagement Observatory
[24] Chilvers et al. (2023) Mapping Public Engagement with Energy, Climate Change and Net Zero Report
[25] Cook (2019) Fulfilling the promise of participation by not resuscitating the deficit model
[26] Wang et al. (2022) How information gaining affects public acceptance in large-scale infrastructure projects: A comparative case study
[27] British Academy (2024) Public trust in science-for-policymaking
[28] Delivering Place-sensitive, Fair Industrial Decarbonisation Policy Brief (IDRIC)
[29] Queen, C. (2021) Investigating public disengagement from planning for major infrastructure projects: A high voltage powerline case study
[30] Martiskainen & Sovacool (2021) Mixed feelings: A review and research agenda for emotions in sustainability transitions
[31] Rohse (2020) Towards an emotional energy geography: Attending to emotions and affects in a former coal mining community in South Wales, UK

[32] Rohse (2025) Taking an emotional lens is key to managing a low-carbon transition | Nature Reviews Clean Technology
[33] Ryder et al. (in press) Understanding and evaluating operator engagement ethos and practices: Examples from the UK Deep Geothermal Sector
[34] NIMBY = "Not in my back yard", see Devine-Wright (2009) below
[35] Devine-Wright, P. (2009) Rethinking Nimbyism: the role of place attachment and place identity in explaining place protective action
[36] Reed, M. S., et al. (2024). "Reimagining the language of engagement in a post-stakeholder world." Sustainability Science, 19, 1481–1490.
[37] Institute for government (2018) How to transform infrastructure decision making in the UK
[38] Young Foundation (2024) Our Journey to Net Zero
[39] The CCC (2023) Net Zero offers real 'levelling up', but Government must get behind green jobs
[40] DESNZ (2023) Community benefits for electricity transmission network infrastructure
[41] BI team (2023) How to Build a Net Zero Society Report
[42] Hannon et al. (2025) Guiding Principles and Actions for Enhancing Community Benefits from Community Benefit Funds
[43] DESNZ (2025) Community funds for transmission infrastructure
[44] Cass et al. (2010) Good Neighbours, Public Relations and Bribes: The Politics and Perceptions of Community Benefit Provision in Renewable Energy Development in the UK
[45] POST (2023) What is a just transition for environmental targets?
[46] Devine-Wright (2007) Reconsidering public acceptance of renewable energy technologies: A critical review
[47] CAST (2024) Catalysts of Change: People at the Heart of Climate Transformations
[48] Wolsink (2007) Wind power implementation: The nature of public attitudes: Equity and fairness instead of 'backyard motives'
[49] The Aldersgate Group (2024) Electric Dreams: How the planning system can help deliver the UK's low-carbon energy
[50] Hindmarsh (2008) Deliberative Speak at the Turbine Face: Community Engagement, Wind Farms, and Renewable Energy Transitions, in Australia
[51] Gross (2007) Community perspectives of wind energy in Australia: The application of a justice and community fairness framework to increase social acceptance
[52] British Academy (2024) Governance for Net Zero report
[53] UsersTCP (2024) Impact assessment of case studies: Assessing the impacts of public engagement in energy infrastructure projects
[54] British Academy (2024) Public trust in science-for-policymaking
[55] The Aldersgate Group (2024) Electric Dreams: How the planning system can help deliver the UK's low-carbon energy
[56] Particularly considering the overlaps and complexity of the local, regional and national policy and program landscape, for example including the Regional Energy Strategic Plan (RESP), the Strategic Spatial Energy Plan (SSEP), the Clean Power Mission, Transitional Centralised Strategic Network Plan (TCSNP), and others.
[57] Britton (2024) Local, regional and community energy systems: energy planning across scales
[58] DESNZ (2023) Community benefits for electricity transmission network infrastructure
[59] UKERC (2023) Mapping Public Engagement with Energy, Climate Change and Net Zero
[60] UsersTCP (2024) How to meaningfully engage the public in energy infrastructure projects
[61] Lansing et al. (2023) Building trust: Leadership reflections on community empowerment and engagement in a large urban initiative
[62] Owens et al. (2022) Lessons from the History of UK Environmental Policy
[63] IDRIC (2024) Delivering place-sensitive, fair industrial decarbonisation

Acknowledgements

The principles were developed collaboratively between the members Community of Practice for People Centred Grid Transformation. This community was established in 2024 to bring together policy makers, grid practitioners or stakeholders, and academic experts in quarterly meetings. The Government Office for Science acts as secretariat for the community and this report was prepared by Rory Walshe, Kapil Vijh, Oliver Johnson, Simon Whitfield, Sam Mitchell and Eve Cox.

We would also like to thank the following people for their invaluable written comments on the document (in alphabetical order): Eric Brown (Energy Systems Catapult), Richard Cowell (Cardiff University), Patrick Devine-Wright (University of Exeter), Tuisku -Snow- Kolu (British Academy), Chizitera Pennington (British Academy), Catherine Queen (University of Liverpool), Henry Richards (British Academy), Mel Rohse (Anglia Ruskin University) and Anna Stanford (Consultant).