



How can Smart Local Energy Systems projects and policies engage more effectively with the public?

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User and community engagement in context

Understanding how to engage the public is a critical component in the transformation of energy systems. Support for low carbon projects can not only hasten technology deployment, but can potentially help to address broader environmental challenges including sustainability and biodiversity. On the other hand, if apathy or opposition occurs, projects can be delayed or even prevented from going ahead.

Public engagement is of particular relevance to smart local energy systems (SLES). Projects introducing novel technologies, including 'smart' components, in geographically-defined 'local' communities are important steps towards a low carbon energy system, but they present specific challenges and opportunities for public engagement. The demonstrator and design projects funded under the Prospering from the Energy Revolution (PFER) programme present an opportunity to understand how we might engage the public around SLES projects, and by extension, with energy system change more broadly.

Our research on project partners within the PFER programme shows that stakeholders differ widely in a) who they understand 'the public' to be, and b) what they regard 'good' engagement to look like. For some projects, viewing users as consumers led to an emphasis upon one-way communication from the perspective of marketing and public relations. In others, viewing users as key partners in the design, development and implementation of SLES led to a more central role and two-way engagement methods being employed.

We conclude that this diversity is partly a result of the lack of prescriptive guidance on user engagement in the early stages of the PFER programme, which emphasised technological and economic aspects, and characterised people narrowly as 'consumers'. We make three key recommendations for future policy making for SLES:

1. Placing engagement more centrally in visions of what successful SLES implementation looks like
2. Providing structures and resources to enable social learning across funded projects
3. Taking engagement in SLES beyond the confines of projects

Our approach to understanding public engagement

The PFER programme is distinct in its emphasis on partnerships of organisations working together to design and demonstrate energy system change. For that reason, we focused on how partners within projects are engaging with the public. In summer 2021, we conducted semi-structured interviews with individuals from 23 project partners across 12 SLES projects, including three Demonstrator projects and nine Detailed Design projects (details of which can be found on [the UKRI website](#)). Interviewees were identified on the basis of them having responsibility for user and community engagement within projects.

With whom do projects engage?

Drawing on data from interviews with stakeholders, we found that project partners targeted two distinct groups of people: users and communities. Here, ‘users’ include those interacting with energy technologies, whereas ‘communities’ encompass individuals and groups with an interest and/or influence in energy system change (see table below).

Examples of user groups engaged by PFER projects included commercial users, home owners and other residential users such as social housing tenants, local authorities and others, with the number of different actors engaged by projects varying considerably across projects.

		Users										Communities													
		Fleet drivers (D)	Housing developer (I)	Business landlord (I)	Drivers (D)	Fleet managers (I)	Local authority (I)	Local residents (I)	Social housing landlord (I)	Social housing tenants (D)	Owner-occupiers (D)	Commercial users & industry (D)	Total no. of user groups	Architects (I)	Cultural / heritage group (I)	Sustainability group (D)	Local development group (I)	Mobility groups (I)	Schools (D)	Wider community (D)	Local authority (I)	Community energy group (I)	Community group (D)	Total no. of community groups	
Demo	ESO					●	●		●	●	●			●			●	●	●	●	●	●	●	●	7
	LEO				●			●		●	●	●						●	●	●	●	●	●	●	4
	ReFLEX				●	●									●					●	●	●	●	●	4
Design	Girona								●	●	●	●				●			●	●	●	●	●	●	5
	GMLEM			●				●		●	●	●							●	●	●	●	●	●	5
	Greenscies						●		●										●	●	●	●	●	●	7
	LMEX												●	●								●	●	●	2
	MHEK	●			●	●											●	●	●	●			●	●	5
	PIRI																		●	●	●	●	●	●	5
	Remedy		●	●					●		●	●						●	●	●	●	●	●	●	5
	RESO						●										●		●	●	●	●	●	●	5
	ZCR							●		●	●								●	●	●	●	●	●	7
			1	1	2	3	3	3	3	4	5	7	9												
		Total no. of user types										Total no. of community types													

User engagement was carried out both directly (D), with users themselves, and indirectly (I) via stakeholders acting on behalf of users, e.g. social housing landlords on behalf of tenants.

As is the case with users, community engagement was carried out both directly (e.g. with the general public) but also indirectly, via, for example, community energy groups and other groups not traditionally engaged in energy issues. Project partners highlighted how engaging publics via existing groups allowed them to tap into trusted local networks, and to reach parts of the community more efficiently than might otherwise be the case.

How do projects engage the public?

Project partners talked about a mixture of approaches to engage with users and communities. User-focused activities centred on specific technologies and included surveys, interviews and technology trials (see table below).

These were – as expected – more common in Demonstrator projects in which the emphasis is on technology deployment. Community-focused approaches including websites, social media, workshops, surveys and exhibits were used across both Design and Demonstrator projects.

		Users					Communities						
		User focus groups	User installs / trials	User interviews	User surveys	No. of user focused practices	Architects (I)	Cultural / heritage group (I)	Sustainability group (D)	Local development group (I)	Mobility groups (I)	Schools (D)	Total no. of community groups
Demo	ESO		●	●	●	3					●	●	2
	LEO		●	●		2		●	●	●	●	●	5
	ReFLEX	●	●	●	●	4	●		●	●	●	●	5
Design	Girona		●		●	2		●			●	●	3
	GMLEM			●		1			●	●	●	●	4
	Greenscies					0	●			●	●	●	4
	LMEX				●	1		●	●	●		●	4
	MHEK		●	●	●	3	●			●	●	●	4
	PIRI					0				●	●	●	3
	Remedy			●	●	2		●		●	●	●	4
	RESO				●	1			●			●	2
	ZCR					0				●	●	●	3
			1	5	6	7		3	4	5	9	10	12
		Total no. of user focused methods					Total no. of community focused methods						

Table: (D) denotes Direct engagement, (I) denotes Indirect engagement.

We note the use of three distinctive modes of engagement, varying in breadth and depth, across the projects we explored. These include communication-centric approaches (e.g. project websites, press-releases), consultative approaches (e.g. exhibits, webinars) and more participatory approaches (e.g. workshops), varying in the degree to which they seek to either educate the public – perhaps as potential users – or otherwise involve the public in discussions about proposed ‘solutions’ or wider system issues.

Around *what* do partners engage publics?

We found lots of diversity in the ‘things’ around which partners engaged people. For the most part, engagement efforts centred on a small number of specific technologies at the heart of each project, such as ground source heat pumps and smart controls, as in Project LEO. In other projects, such as Zero Carbon Rugeley, project partners were less prescriptive about specific technological ‘solutions’, focusing engagement efforts instead on the broad challenge of whole energy system change within which a diversity of potential solutions might have a role.

Why do projects engage with the public?

Project partners rationalise their engagement practices in different ways, articulating a variety of potential roles for users and communities in supporting and enabling local energy system change.

First, a small number of projects highlighted the importance of users and communities as **co-creators**, allowing projects to beta-test novel SLES technologies. This assumes that people have knowledge, skills, interests and agency of consequence to the success of SLES projects. Such an idea is associated with engagement approaches that focus on drawing out these interests and shaping SLES projects around them. Given that these approaches are based on the premise that local energy systems should be designed for, and sometimes co-designed with, local people, these characterisations are likely to be most relevant to design projects for whom technological characteristics of SLES are not predetermined.

The process of user-centric design was not only useful in giving users agency in designing SLES systems; it also appeared to encourage reflexively around the very process of engagement.

Second, several projects positioned the public as **recipients** or **testers** of pre-conceived solutions. Here, SLES projects are viewed primarily as technical challenges, with users and communities as beneficiaries of solutions that are largely designed by expert project stakeholders. These partners articulated the importance of ‘taking people on a journey’, but framed this around a need for more or better information about SLES projects and associated technologies. Engagement is acknowledged as important, but exists uncritically as a ‘tick-box exercise’.

A third key framing is that of publics as **consumers** (or potential consumers), for which SLES products and services can be marketed. As such, users are often characterised as **driven by self-interest**, who are apathetic with regard to system-wide or community benefits. This characterisation is frequently used to justify a customer-focused marketing approach through the products and services emerging out of SLES projects that can be tested and ultimately sold. Here, SLES represent packages of value propositions that need to be articulated in order to answer prospective users’ questions about WIIFM (what’s in it for me?).

Finally, several project partners suggested that publics may be unwilling or unable **non-participants**, leading to a logic in which SLES are designed without the public having to engage at all. These partners talked about users as fundamentally **unwilling and/or unable to engage in energy system change**. As a result, ‘good’ engagement is framed as taking place in the background rather than the foreground of people’s everyday lives, ensuring minimal effort or disruption. This characterisation of behavioural inertia was used by some stakeholders to justify non-engagement, i.e. to design SLES projects in such ways as to circumvent any disruption or inconvenience to people, or indeed to achieve SLES objectives by removing points of friction between people and decarbonisation efforts.

These ideas about user engagement appear to be based primarily on pre-existing beliefs about what users are like, rather than on direct experiences of local publics in SLES projects. We suggest that an over-reliance on particular ideas of users might close down avenues for engagement, to the potential detriment of SLES project objectives.

What are the implications for future SLES projects and policies?

To help guide future SLES developments, three key implications and associated recommendations can be identified from our findings.

Policies and funding programmes could be clearer about the value of public engagement

The Climate Change Committee in their 2022 [Progress Report to Parliament](#) identified public engagement as a key enabler for net zero. However, in this research it appears that matters of user engagement were less central to the overall programme by comparison with technological and economic aspects. The PFER programme did not recommend any particular engagement approaches or principles. If a view of users was suggested beforehand, it was a relatively narrow definition based on seeing people principally as consumers. The result is a high level of heterogeneity across the case studies in who users are considered to be, how engagement is done and what level of commitment is involved. Future SLES programmes could place engagement more centrally in visions of what successful SLES outcomes should look like, explicitly deter box-ticking approaches, and promote ideas of users that include, but are not limited to, consumers or customers.

Future programmes could be designed in a way that encourages innovation in engagement practices within projects

Learning and experimentation in user and community engagement are important yet often overlooked aspects of wider SLES innovation. The engagement practices we found were for the most part developed within discrete projects and any sharing of experiences between projects was patchy and *ad hoc*, meaning that valuable lessons about what does and doesn't work in engagement are not maximised. Future programmes could do more to build a culture and infrastructure that supports social learning between projects, transferring lessons about what forms of engagement 'work' or 'don't work', in different contexts.

Engagement around SLES needs to move beyond projects

We found that project contexts influence the ways in which public engagement is rationalised, resourced and carried out. Projects are by definition resource and time-limited, constraining the potential for deep, coordinated or prolonged programmes of local engagement. The organisations involved in projects will value and approach public engagement in different ways. Projects (such as those in the PFER programme) are also typically focused on specific technologies or business models, meaning that engagement can be narrowly tailored to these focal points. While projects clearly create valuable opportunities for learning, engaging the public in energy system change will require taking engagement beyond project contexts and into the mainstream.

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This briefing should be referenced as:

Soutar, I. & Devine-Wright, P. 2022. How do stakeholders engage with the users of Smart Local Energy Systems? EnergyREV, University of Strathclyde Publishing: Glasgow, UK.
ISBN: 978-1-914241-21-5

Related journal article:

Soutar, I., Devine-Wright, P., Rohse, M., Walker, C., Gooding, L., Devine-Wright, H. and Kay, I. 2022. Constructing practices of engagement with users and communities: comparing emergent state-led Smart Local Energy Systems. *Energy Policy*, **171**: 113279. doi: [10.1016/j.enpol.2022.113279](https://doi.org/10.1016/j.enpol.2022.113279)

Acknowledgements

This research described in this Briefing benefited from the input of the following researchers:

Hannah Devine-Wright, Rajat Gupta, Chad Walker, Melanie Rohse, Luke Gooding, Rebecca Ford, Imogen Kay.

About EnergyREV

EnergyREV was established in 2018 (December) under the UK's Industrial Strategy Challenge Fund Prospering from the Energy Revolution programme. It brings together a team of over 50 people across 22 UK universities to help drive forward research and innovation in Smart Local Energy Systems.

EnergyREV is funded by UK Research and Innovation, grant number EP/S031898/1.

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