

Invitation to Tender for Task Leader of the Public Engagement for Energy Infrastructure Task

The Technology Collaboration Programme (TCP) has been created by the IEA to facilitate global cooperation on energy technology. Today, the [User-Centred Energy Systems TCP](#) (henceforth, Users TCP) is one of 38 collaborations that collectively connect thousands of experts across government, academia and industry in 55 countries focused on advancing the research, development and commercialisation of energy technologies.

The Users TCP works to provide evidence from socio-technical research on the design, social acceptance and usability of clean energy technologies to inform policy making for clean, efficient and secure energy transitions. The delivery mechanism for our Strategy is our programmes of work, collectively known as “Tasks”.

This invitation to tender is for provision of Task Leader services for the newest Task to be launched by the Users TCP, the **Public Engagement for Energy Infrastructure Task**. The role of Task Leader is funded jointly by five Users TCP Member countries: Ireland, the Netherlands, Sweden, Switzerland and the United Kingdom.

DEADLINE FOR TENDER RESPONSES: 9th January 2023

Please register your interest in submitting a tender for this work by emailing the TCP Secretariat at admin@userstcp.org. This will ensure you receive immediate notification of updates to the ITT process or answers to questions raised by potential bidders.

Timeline

Tender submission deadline	9 January 2023
[Window for bidder interviews]	30 January – 10 February 2023
Bidders notified of outcome	13 February 2023
Expected Task start date	1 March 2023
Expected Task completion date	1 March 2024
Presentation to Users TCP Executive Committee	Spring 2024 (date to be confirmed)
Users TCP Academy webinar	Spring 2024 (date to be confirmed)

You will not be entitled to claim from the Users TCP any costs or expenses that you may incur in preparing your tender whether or not your tender is successful.

Declaration of conflicts of Interest

Bidders are required to declare any conflicts of interest. Conflict of interest is defined as the presence of an interest or involvement of the contractor which could affect the actual or perceived impartiality in carrying out the role. Where any conflicts are identified, the bidder is encouraged to propose mechanisms for managing these in the proposal. These mechanisms can be discussed in advance of submitting the tender.

Background and rationale

Achieving a rapid reduction in greenhouse gas (GHG) emissions over the next 30 years will require a broad range of policy approaches and technologies. The IEA specifies electrification; renewables; hydrogen and hydrogen-based fuels; bioenergy; and carbon capture, utilisation, and storage (CCUS) as some of the ‘key pillars of decarbonisation of the global energy system’.ⁱ As these sectors require substantive changes in technologies, institutions, and the behaviours and attitudes of firms and individuals to reduce GHG emissions, public engagement will become increasingly important in achieving each of these pillars.

Energy infrastructure sectors, including large and enabling infrastructure, will play a vital role in reducing GHG emissions and increasing energy security. Biomass, CCUS, concrete, energy from waste, GHG removal technologies, hydrogen, nuclear, offshore wind, onshore wind, solar, and steel could all require rapid and large-scale expansion and/or decarbonisation. The infrastructure construction necessary for these changes can disrupt people’s lives and be met with public opposition, resulting in costly delays and missed targets. Public engagement will be necessary to ensure the transition produces fair and inclusive outcomes for all affected.

The benefits of good public engagement include facilitating action, building trust, and the development of better and fairer policies, which are all crucial in tackling climate change.^{ii iii} Public engagement can be split into three categories:^{iv}

- Awareness-raising: one-way dissemination of information to increase awareness and understanding of issues. This includes digital platforms (such as websites) that, once people are ‘aware’, can be used as resources.
- Consultation: two-way gathering of views, attitudes, and knowledge from communities to inform decisions.
- Empowerment: two-way community-led engagement where communities themselves design the engagement process, its objectives, and its scope.

These categories are not hierarchical. Each approach can add different value and play an important role. Good engagement might involve one, two, or all three approaches depending on the project or policy area. Consultation and/or empowerment may be inappropriate if decisions cannot be actioned (for example, if policy has already been designed).

Academic literature and policy documents interchangeably use the terms “energy consumer”, “energy user”, and “energy citizen” when discussing individuals engaging with the energy system. Schot (2016) acknowledges that “user participation extends far beyond making purchasing decisions and paying the bills” and establishes five distinguishable user roles observed in transitions: (i) user-producers, (ii) user-legitimizers, (iii) user-intermediaries, (iv) user-citizens, and (v) user-consumers.^v Civil society thus engages with energy infrastructure developments in a myriad of ways.^{vi} The framing of user roles is important and matters for the level of engagement in energy infrastructure projects.^{vii viii ix}

Public participation in and engagement with energy projects and processes emerges in the context of a socio-technical energy system, and in turn shapes this energy system. Similar forms of energy-citizenship may have very different outcomes in different socio-technical, legal, institutional, socio-economic, and socio-political contexts. Similarly, the socio-technical system conditions the forms of energy-citizenship that emerge in certain locations. A socio-technical system consists of the actors,

technologies and services, infrastructures, and the rules, regulations, and institutions that govern the interactions between them.

Energy infrastructure developments require not only changes in the technologies and infrastructures themselves, but also changes in the broader socio-technical system.^x Past energy transitions came with fundamental changes in the organization of society and the power relations within societies.^{xi} Increasingly policymakers seek to consciously reflect on the way the emerging system includes or excludes people and to ensure that all stakeholders can engage with energy developments as a basis for action and decisions.

The challenge to identify and stimulate those forms of participation and engagement that contribute to a fair and inclusive transition, *and* to a climate neutral energy system, demands improved understanding of the psychological, social, economic, institutional, and technological factors that foster energy citizenship and influence its outcomes.

Good public engagement can address each of the IEA's key pillars of decarbonisation around energy infrastructure by:

- Increasing the social acceptance of climate change policies and energy infrastructure developments.
- Reducing the potential negative impacts or unintended consequences of climate change policies and infrastructure developments. For example, the significant associated costs and unfair or unequal distribution of these policies. The negative impacts of infrastructure developments can include the noise, disruption, traffic, safety-risks, and pollution associated with major construction projects. Some infrastructure developments could affect the local ecosystem and wildlife (marine, avian, and on-land). Affected communities may have aesthetic concerns regarding the visual landscape. Furthermore, they may fear that local property values or tourism could decrease.

It is important to ensure the public has relevant and timely information for changes that may affect them. These include the changes associated with energy infrastructure developments, as well as societal and individual behavioural changes. Two-way public engagement is important to ensure underrepresented and less vocal groups have their views heard when they might not otherwise. Through community engagement, all parties (developers, local communities, government, etc.) can learn from each other and make sure that the decisions made when reducing GHG emissions produce fair, inclusive, and acceptable outcomes.

This does not necessarily mean compromising on the speed at which changes are made but could inform how the changes are made and the amount, or form, of compensation given to the communities adversely affected (by construction projects, for example). Compensation can take many forms, such as distribution of revenues, funding of local projects, jobs/apprenticeships, energy discounts, and indirect benefits. Moreover, effective public engagement may even lead to the identification of those strategies that lead to co-benefits rather than trade-offs. It is thus pivotal to understand how co-benefits can be leveraged to increase the perceived fairness of energy infrastructure pathways.^{xii}

Many countries have small and disjointed approaches to engaging the public on and around energy and climate change. Often, different policies have their own engagement approaches, lacking a systemic and strategic approach that connects them. Cross-cutting and joined-up engagement will be important as the various impacts of emissions reductions will not be felt in isolation and will instead

have cumulative impacts on people's lives.^{xiii} There are also differences between countries' public engagement approaches. Different approaches taken can include: 'invited' or 'top-down' approaches (in which the public is asked for their views on decisions ultimately made by a centralised policymaker), 'created' or 'bottom-up' approaches (in which citizen-led engagement defines the agenda), and behavioural change approaches (which seeks to adapt the way the public acts).^{xiv}

The costs to dramatically reduce GHG emissions will only rise if policies fail due to a lack of public support, poor take-up, or bad design; governments need to invest to ensure such false starts are avoided in the future.^{xv} Efforts have been made to improve countries' public engagement approaches, such as the United Nations Educational, Scientific and Cultural Organization's and the United Nations Framework Convention on Climate Change's Action for Climate Empowerment initiative, which focuses on education, training, public awareness, public participation, public access to information, and international cooperation around tackling climate change.^{xvi}

Effective public engagement will be critical in rapidly and fairly reducing GHG emissions through building new low-carbon energy infrastructure, but many countries are lacking substantive and systematic approaches for conducting it. Therefore, understanding how best to engage with the public will be crucial in tackling climate change and will provide benefit to all Users TCP member countries.

Aims and Objectives of the Task

Objectives

The proposed objectives for this research are:

- A. To identify common challenges to effective public engagement on energy infrastructure and explore how best to resolve these with leading experts across the world.
 - i. To **understand social-psychological drivers and barriers of engagement with energy infrastructure developments**: What are the drivers and barriers for groups and individuals to participate?
 - ii. To **understand socio-technical and institutional drivers and barriers of engagement with energy infrastructure developments**: What are the drivers and barriers for public engagement that come from the broader socio-technical systems' context and legal and institutional environment?
- B. To collect evidence from international case studies about which public engagement approaches are effective and ineffective, and under which circumstances (within the field of energy infrastructure).
 - i. To **understand outcomes and inclusiveness**: To what extent are different forms of public engagement inclusive and lead to fair energy **infrastructure developments**? How do initiatives contribute to climate neutrality at the system level, considering distributional effects and required investments?
- C. To collaborate internationally to develop best practice guidance for public engagement around energy infrastructure.

Key outputs will be published and available to use by governments, organisations, and individuals globally.

Research questions

We will use an interdisciplinary approach to come to an overview of the mechanisms underlying effective public engagement strategies.

1. Which forms of public engagement are best for achieving acceptance of energy infrastructure projects and fair and inclusive decision-making around energy infrastructure?
2. When and why have infrastructure projects failed due to a lack of good public engagement?
3. What are the socio-psychological, socio-technical, and institutional drivers and barriers to acceptance of energy infrastructure projects and participation in energy infrastructure decision-making?
4. Which social groups (here, now, later, elsewhere) are affected by the development and decarbonisation of energy infrastructure, and how can we include them in public engagement and decision-making?
5. To what extent do the public expect/value joined-up engagement and co-ordinated implementation between different sectors, and how can this be maximised?

The review and analysis of case studies and experiences brought in member countries to identify good practices for inclusion of underrepresented and vulnerable groups. The case studies will also look at existing regulation and governance that organizes participatory decision-making. The activities will thus both yield an extensive list of the possible consequences of the transition to climate neutrality for different social groups as well as an overview of possible strategies to mitigate these.

The integrative analysis will yield an evaluation framework for public engagement that accurately describes different forms of engagement and best practices required for its implementation.

Work Programme

During this project, two substantive pieces of work will be conducted:

1. Literature review

The production of a comprehensive review of current and previous strategies and programmes to public engagement around energy infrastructure from multiple countries. This will cover academic and grey literature. While outside the scope of the formal systematic review, other resources, such as videos and podcasts, can also be drawn from. This work will be complemented where appropriate with the use of semi-structured interviews to help develop a more complete picture of public engagement approaches. These interviews will be conducted in all participating member countries, drawing on the expertise of people in each country, such as policy analysts, social researchers, and academics. The resulting outputs will be a visual and compelling slide-pack, and written literature review with further detail. These outputs should cover, for example:

1. Overview of the country specific rules, regulations, and practices concerning public engagement in the energy infrastructure planning and development processes.
2. Country-wide information and awareness-raising communications and marketing campaigns, and international information campaigns (if applicable).
3. Local-level initiatives.
4. Community benefits initiatives.
5. Case studies of specific sectors (such as biomass, CCUS, concrete, energy from waste, GHG removal technologies, hydrogen, nuclear, offshore wind, onshore wind, solar, steel, etc.).

6. Evidence gaps, where additional research or analysis is needed.
7. Deliberative and participatory initiatives.
8. Indicators and measures of effective public engagement.

2. Guidance

Development of best practice guidance for public engagement around energy infrastructure. This guidance should take the form of a visual and practical slide-pack summarising the recommendations, as well as a full written report providing more detail. The guidance should consist of:

1. Evidence-based and context-specific recommendations and practical advice for how governments and organisations should engage the public around energy developments, including how to embed this into broader policy design, delivery, and governance structures.
2. Descriptions of best practices in a variety of contexts.
3. A decision-making tool, matching available engagement options to local contexts and project characteristics.

During the production of these pieces of work, members of the wider interest group will provide summaries and give presentations of the evidence they are aware of. The centre will ensure interchange between experts and policymakers to disseminate important evidence.

High-level Gantt chart

Subtask 1	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Develop research plan and analysis framework	█	█	█									
Expert interviews and consultation			█	█	█							
Identify/discuss best practice w/ experts			█	█	█							
Draft/sign-off literature review						█	█	█	█			
Draft/sign-off guidance									█	█	█	█

Quality assurance

In their tenders, tenderers should describe their planned approach for quality assurance across all stages of the project. Sign-off for quality assurance must be done by someone of sufficient seniority within tenderers' organisations. The successful tenderer will be responsible for any work supplied by subcontractors.

Tenderers should assume that the Users TCP task steering committee will take an active role in review and quality assurance of research materials, analysis, and outputs, in addition to potential external peer review. It should be expected that research materials and outputs go through roughly three iterations.

Deliverables

Subtask	Deliverable ID	Deliverable name	Deliverable type
1	D1	Research plan and analysis framework	Report
1	D2	Expert interviews and consultation	Qualitative interviews
1	D3	Literature review summary	Slide pack
1	D4	Literature review	Report
1	D5	Guidance summary	Slide pack
1	D6	Guidance	Report

Outcomes

Through the research's activities and deliverables, we hope to:

- Identify the methods, processes, scale, and costs of public engagement initiatives that are taking place internationally.
- Identify strategies that have been successful within multiple countries, taking into account local contexts.
- Identify which initiatives are more cost-effective than others.
- Identify gaps in the current package of policies, and/or common challenges in effective public engagement and how best to address these.
- Identify existing governance structures around incorporating public engagement initiatives with policy design and delivery, and existing government communications exercises, their challenges and how they could be improved.

Desired profile

This is a call for a new Task Leader, i.e. coordinator of the Public Engagement for Energy Infrastructure Task, for a 12 month period commencing Feb/March 2023.

The Task Leader should have:

- Experience in undertaking and presenting socio-technical research in the energy sector
- A solid understanding of energy infrastructure development issues related to low carbon energy transitions
- Good communication, coordination and project management skills

The Task Leader position could also be jointly filled by a consortium of parties that collectively meet the requirements.

Selection procedure

Interested parties are invited to provide a short proposal (no longer than 5 A4 pages) outlining:

- How you meet the desired profile, including examples of past experiences working on public engagement and energy infrastructure development
- How you would deliver the work programme outlined above, including staff time and cost estimates.

Assessment Criteria

Questionnaire	Question subject	Maximum marks
Price	Price	20%
Quality	Approach	20%
Quality	Staff to deliver	10%
Quality	Understanding the environment	20%
Quality	Project plan and timescales	20%
Quality	Social value	10%

Deadline for submitting applications and proposals to the Users TCP Secretariat (admin@userstcp.org): **9th January 2023**

The Users TCP Secretariat will contact shortlisted candidates for interviews by end January 2023.

ⁱ International Energy Agency (2021). Net zero by 2050: A roadmap for the global energy sector. <https://www.iea.org/reports/net-zero-by-2050>

ⁱⁱ Department for Business, Energy and Industrial Strategy (2021). Net zero public engagement and participation: A research note. <https://www.gov.uk/government/publications/net-zero-public-engagement-and-participation>

ⁱⁱⁱ Calouste Gulbenkian Foundation (2021). Public engagement for climate change: Launch of a new literature review. <https://gulbenkian.pt/uk-branch/public-engagement-for-climate-change-launch-of-a-new-literature-review/>

^{iv} Aitken, M., Haggett, C., & Rudolph, D. (2016). Practices and rationales of community engagement with wind farms: Awareness raising, consultation, empowerment. *Planning Theory & Practice*, 17(4). <https://doi.org/10.1080/14649357.2016.1218919>

^v Schot, J., Kanger, L., & Verbong, G. P. J. (2016). The roles of users in shaping transitions to new energy systems. *Nature Energy*, 1(5), 1-7. [16054]. <https://doi.org/10.1038/nenergy.2016.54>

^{vi} Smith, A. (2012) 'Civil society in sustainable energy transitions'. In: Verbong and Loorbach (eds.) *Governing the Energy Transition: Reality, Illusion or Necessity?* Routledge Studies in Sustainability Transitions . Routledge, New York, pp. 180-202.

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- ^{vii} Devine-Wright, P. (Ed.). (2014). *Renewable Energy and the Public: from NIMBY to Participation*. Routledge.
- ^{viii} Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216-224.
- ^{ix} Sarrica, M., Brondi, S., & Cottone, P. (2014). Italian Views on Sustainable Energy: Trends in the Representations of Energy, Energy System, and User, 2009–2011. *Nature and Culture*, 9(2), 122–145. <https://doi.org/10.3167/nc.2014.090202>
- ^x Köhler, J., Geels, F. W., Kern, F., Markard, J., Onsongo, E., Wieczorek, A., ... & Fünfschilling, L. (2019). An agenda for sustainability transitions research: State of the art and future directions. *Environmental Innovation and Societal Transitions*, 31, 1-32.
- ^{xi} Mitchell, T. (2011). *Carbon democracy: Political power in the age of oil*. Verso, New York.
- ^{xii} Peñasco, C., Anadón, L. D., & Verdolini, E. (2021). Systematic review of the outcomes and trade-offs of ten types of decarbonization policy instruments. *Nature Climate Change*, 1–9. <https://doi.org/10.1038/s41558-020-00971-x>
- ^{xiii} Institute for Government (2021, September 3). Public engagement and net zero: How government should involve citizens in climate policy making. <https://www.instituteforgovernment.org.uk/publications/public-engagement-net-zero>
- ^{xiv} Department for Business, Energy and Industrial Strategy (2021). Net zero public engagement and participation. <https://www.gov.uk/government/publications/net-zero-public-engagement-and-participation>
- ^{xv} Institute for Government (2021, September 3). Public engagement and net zero: How government should involve citizens in climate policy making. <https://www.instituteforgovernment.org.uk/publications/public-engagement-net-zero>
- ^{xvi} United Nations Educational, Scientific and Cultural Organization (2020). UNFCCC & UNESCO launching Action for Climate Empowerment dialogue. <https://en.unesco.org/news/unfccc-unesco-launching-action-climate-empowerment-dialogue>