iea wind

Task 62 | BRIDGE Overview

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This overview explains the purpose, planned outputs, and five connected work packages of Task 62 | BRIDGE (Phase 1: July 2024 – June 2028), and how related international research and practice can inform responsible wind energy planning and participation.

Central question

How – and under what conditions – do planning and participation shape the technical feasibility, legal soundness, financial viability, local legitimacy, and social durability of wind energy projects in shared space?

BRIDGE examines how much influence these processes have, under what conditions they strengthen or weaken these outcomes, and what trade-offs arise. This includes the organisational and institutional conditions that determine whether local knowledge, concerns, and aspirations can shape decisions about project siting, design, mitigation, benefit arrangements, and whether and on what terms a project proceeds. It also examines how participants can see what changed, what did not, and why.

Ongoing review

All comments and suggestions on the framing, wording, and content of this Task 62 | BRIDGE overview are welcome.

Purpose

IEA Wind Task 62 | BRIDGE mobilises international social science research, practice, and expertise to examine, synthesise, and share evidence that can support fair, responsible, and sustainable wind energy development through collaborative, trusted, and effective planning and participation.

The Task brings together international research and practical experience, inviting contributions from researchers, practitioners, project proponents, host communities, public authorities, and policymakers. This international collaboration examines why wind energy projects encounter social challenges and how planning, participation, organisational and institutional conditions, benefit models, and practical tools shape project decisions and outcomes.

Its focus is on how onshore and offshore wind energy projects can be planned and delivered so that they are technically feasible, legally sound, financially viable, locally legitimate, and socially durable – able to sustain trust and constructive relationships over time in the places where they are proposed.

Why this matters in practice

Wind projects do not happen in empty space. They enter landscapes, seascapes, and communities where technical, environmental, economic, political, and social realities overlap. These are shared spaces – places where wind energy development intersects with existing livelihoods, rights, uses, values, relationships, and responsibilities.

Research on wind energy development identifies links between perceived fairness, participation, trust, and community responses to projects – for example, in a review of North American studies (Rand and Hoen, 2017). A more recent review of renewable energy research also emphasises meaningful influence on project decisions, recognition of affected people and their knowledge, and fair distribution of impacts and benefits (Boudet et al., 2025).

In this overview, local legitimacy concerns whether affected people regard a project and the way it is developed as appropriate and fair. This is a different question from whether it meets technical, legal, and financial requirements. Assessing it requires attention to different perspectives, whose voices are heard, whether participation can influence relevant decisions, and how impacts and benefits are experienced and distributed over time.

Acceptance is used in different ways in wind energy research and can include toleration as well as support. In this overview, support means a positive stance towards a project. Neither acceptance nor support, on its own, demonstrates local legitimacy: people may tolerate a project without supporting it, or support a project for its benefits while questioning the fairness of how it is developed.

Local legitimacy does not imply that everyone involved or affected agrees with every decision or project outcome. Responsible planning should be fair, transparent, evidence-informed, and responsive to what is learned through meaningful dialogue and sustained relationships. It should create conditions in which people can speak openly, be heard, and help shape relevant decisions. Decisions should draw on research, practical experience, and the diverse knowledge of affected people and communities, including local and Indigenous knowledge.

Task 62 examines how these relationships vary across places, projects, and planning systems, and under what conditions planning and participation strengthen or weaken trust and local legitimacy. It considers the implications for project decisions, conflict, and delivery risk, including where formal consent and local legitimacy diverge. Responsible planning may reveal the need for substantial redesign, alternatives, or circumstances in which proceeding would be inappropriate.

Why ‘BRIDGE’

BRIDGE stands for Building Research-informed Inclusive Dialogue for Global Wind Energy. The name reflects Task 62’s role as an international knowledge bridge between social science research and wind energy practice. Through international collaboration, dialogue, and shared learning, the Task synthesises and shares evidence and guidance that developers, communities, authorities, and policymakers can use to inform responsible wind energy planning, participation, and deployment.

Building on earlier work and current collaboration

Task 62 | BRIDGE builds on earlier IEA Wind social science collaboration, particularly Task 28, which ran from 2008 to 2024 and contributed to a growing international evidence base on community responses, place attachment, participation, fairness, benefit sharing, and the factors that influence support and opposition.

Drawing on this foundation of social acceptance research, Task 62 examines more explicitly how planning and participation shape project decisions, and the organisational and institutional conditions for local legitimacy and social durability. Its work packages connect these insights with socio-enviro-technical design, engagement practice, participation and benefit models, and practical planning tools. The Task combines international research collaboration with structured learning across countries, disciplines, and areas of practice.

Its activities include reviews of published evidence and existing guidance, comparisons across jurisdictions, expert workshops, case-based learning, surveys and interviews where appropriate, and collaboration with other IEA Wind Tasks, Technology Collaboration Programmes, research networks, industry actors, authorities, and community-facing organisations. The international symposium in Halle on 7 to 9 October 2026 provides a forum for sharing research, identifying evidence gaps, and developing collaboration between research and practice.

Task 62 aims to identify established knowledge, promising practice, contextual differences, evidence gaps, and future research needs. Its distinctive contribution is to bring together international evidence, identify transferable lessons while recognising local context, and translate social science into practical guidance for developers, authorities, policymakers, researchers, and communities.

Planned outputs

Phase 1 (July 2024 – June 2028) focuses on clarifying the content of the five work packages, synthesising relevant evidence, and building an international team with depth of knowledge and a broad range of experience and perspectives. Planned outputs include evidence syntheses, cross-country comparisons and learning, workshops and knowledge exchange, research publications, and policy and practice briefings.

Recommended Practices are planned for Phase 2, drawing on the evidence and international collaboration developed during Phase 1. The aim is to produce research-informed guidance for collaborative wind energy planning and participation with a strong evidence base, broad legitimacy, and practical relevance across different contexts – supporting its uptake and use.

What Task 62 BRIDGE aims to support

(Which of these aims and potential uses are most relevant to you?)

- ☐ timely and effective integration of social science evidence and local knowledge into technical, legal, and environmental wind energy planning;
- ☐ constructive and well-informed planning conversations between developers, communities, public authorities, and other stakeholders;
- ☐ active local participation through which local knowledge, concerns, and aspirations can meaningfully inform decisions affecting communities and their places;
- ☐ organisational capability and institutional conditions that enable a credible response to what is learned through engagement;
- ☐ fair participation and benefit models that respect what communities value and support locally meaningful value creation;
- ☐ practical tools and guidance that help actors identify concerns, trade-offs, and participation needs earlier; and
- ☐ international learning across countries, technologies, planning systems, and community contexts.

The goal is to build shared understanding, evidence, and practical guidance that can be adapted to different places, planning systems, technologies, and community contexts.

How the findings can be used

The Task's evidence syntheses, briefings, and guidance are intended to help:

- ☐ researchers identify evidence gaps, compare findings and methods across contexts, and develop further research;
- ☐ policymakers examine participation frameworks, institutional responsibilities, incentives, and the capacity needed to put policy into practice;
- ☐ regulatory, planning, and permitting authorities examine how participation is organised, how relevant evidence informs decisions, and how responses and decisions are explained;
- ☐ project proponents integrate local learning into siting, design, benefit arrangements, and internal decision-making; and
- ☐ host communities and community-facing organisations assess opportunities to participate, understand where influence is possible, and consider how impacts and benefits are addressed.

The five work packages

The five work packages examine interconnected technical, environmental, organisational, institutional, participatory, financial, and practical conditions that shape collaborative wind energy planning and participation.

WP	Focus area	Contribution
WP1	Socio-Enviro-Technical Collaboration	Examines how social science evidence and local knowledge can be integrated earlier with technical and environmental knowledge in project design.
WP2	Local Engagement, Planning, and Participation	Examines what makes active participation early, meaningful, decision-relevant, and trusted.
WP3	Organisational and Institutional Conditions	Explores how organisational and institutional conditions shape whether learning through engagement can influence consequential project decisions.
WP4	Participation, Benefits, and Business Models	Examines how participation, benefit, ownership, and business models shape fairness, legitimacy, and locally meaningful value creation.
WP5	Tools for Improved Planning and Participation	Examines tools that support dialogue, learning, trade-off exploration, and well-informed decisions.

How the work packages fit together

- WP1 examines how technical and environmental decisions become socially consequential in place.
- WP2 examines the quality of engagement, planning, and participation, including which decisions participation can influence and how responses are explained.
- WP3 examines the organisational and institutional conditions that enable learning through engagement to influence consequential project decisions.
- WP4 examines how financial participation, ownership, benefits, compensation, and business models shape fairness, legitimacy, and locally meaningful value creation.
- WP5 examines the practical tools needed to support better planning, dialogue, learning, and decision-making.

Together, the work packages investigate how these factors shape project decisions, local relationships, and delivery outcomes. They examine under what conditions planning and participation strengthen or weaken trust and local legitimacy, and what this means for conflict, delay, and responsible deployment.

WP1 Socio-Enviro-Technical Collaboration

Why it matters in practice

Technical and environmental decisions are often based on specialist evidence, but their consequences are experienced in particular places. They can affect daily life, landscape, viewshed, ecology, sound, light, roads, fisheries, farming, heritage, and local futures. The practical question is how social science evidence and the knowledge and experience of affected people can inform design choices while options remain open. This raises questions about design options, trade-offs, mitigation, and local legitimacy.

Focus

WP1 examines how social science evidence and local knowledge can be integrated earlier into technical and environmental wind energy planning, so that project design better reflects how wind energy is experienced in place. It explores how issues such as siting, layout, noise, shadow flicker, aviation lighting, biodiversity, landscape, grid, access roads, and cumulative impacts can be addressed through more integrated forms of collaboration. Where useful, WP1 will collaborate with other IEA Wind Tasks, relevant Technology Collaboration Programmes, and experts from participating countries to strengthen connections between social, technical, and environmental knowledge.

Core question WP1: How can socio-enviro-technical collaboration improve project decisions, support responsible deployment, and strengthen the social conditions for local legitimacy?

WP2 Local Engagement, Planning, and Participation

Why it matters in practice

Engagement can take place at different stages of project development, with varying opportunities for influence. The practical issue is what participants can help shape, whether they understand who has authority to decide, and how their contributions are considered and answered. WP2 investigates how timing, openness of choices, and the quality of interaction affect whether participation is meaningful and trusted.

Focus

WP2 examines how communities, developers, and authorities interact during wind energy planning, recognising that communities are not homogeneous and that people may have different interests, rights, experiences, resources, and relationships to place. It considers how active participation can begin early enough to inform decisions that materially affect local places, and whether and how local knowledge, concerns, and aspirations influence project design and planning. It explores what makes engagement credible, decision-relevant, and trusted – including clarity about what can still change, what cannot change, who decides, and how participants can see what changed, what did not, and why. It also examines the information, time, support, skills, and resources needed for meaningful participation.

Core question WP2: What makes engagement early, meaningful, decision-relevant, and trusted in wind energy planning?

WP3 Organisational and Institutional Conditions

Why it matters in practice

Even well-designed engagement processes can fail if organisations are not ready or able to respond appropriately to what they hear. Meaningful participation requires supportive mindsets and organisational cultures, together with the systems, mandates, and capabilities needed to interpret, assess, communicate internally, and respond to local knowledge and concerns before key choices are locked in. Wider government, regulatory, institutional, and political conditions also shape how organisations are able, encouraged, constrained, or required to act. This is an organisation-wide capability, supported or hindered by its institutional setting.

Focus

WP3 examines the organisational and institutional conditions that help or hinder meaningful engagement and its influence on consequential project decisions. It considers practice within developers, planning and permitting authorities, and relevant regulatory and policy organisations, alongside the wider rules, incentives, and political structures that shape their behaviour. Recognising the sensitivities involved in examining internal practice, WP3 seeks recurring patterns, enabling conditions, practical indicators, and transferable lessons rather than assessing or ranking individual organisations. This includes cultures, leadership, governance routines, decision mandates, timelines, risk management, procurement, legal advice, and project development systems. It examines whether and how organisations address local legitimacy alongside technical, financial, and legal considerations, and what this means for project decisions and outcomes.

Core question WP3: What organisational and institutional conditions determine whether what is learned through engagement can meaningfully influence consequential project decisions?

WP4 Participation, Benefits, and Business Models

Why it matters in practice

Benefits, compensation, ownership, and participation models raise questions about who gains, who bears impacts, who helps shape the arrangements, and how decisions are governed. WP4 investigates how these models are experienced in different contexts, what communities value, and whether and under what conditions they strengthen or weaken perceived fairness, local legitimacy, and long-term support.

Focus

WP4 examines financial participation, community benefit, co-ownership, shared governance, compensation, local value creation, and business models for wind energy development. It explores how benefits and impacts are distributed, how communities participate in decisions about value creation, and the conditions under which participation models strengthen or weaken fairness, legitimacy, and long-term support. It also considers how these arrangements affect local relationships, community capacity, and long-term local development.

Core question WP4: How – and under what conditions – do participation, benefit, ownership, and business models shape fairness, legitimacy, and long-term support?

WP5 Tools for Improved Planning and Participation

Why it matters in practice

Project teams, authorities, and communities need practical tools to identify concerns early, understand trade-offs, explore options, and show how participation has informed decisions. Their usefulness depends on their purpose, timing, accessibility, connection to actual planning and decision-making processes, and, where appropriate, their selection, adaptation, or design with the people expected to use them.

Focus

WP5 examines tools and methods that can improve wind energy planning and participation. These may include visualisation, participatory mapping, gamification, trust and legitimacy diagnostics, cumulative-impact approaches, engagement quality frameworks, decision-support tools, and methods for documenting how engagement informed decisions and outcomes. It explores how tools can support dialogue, learning, and well-informed decisions across different planning contexts.

Core question WP5: What tools help actors identify local concerns, trade-offs, trust conditions, and participation needs early enough to improve planning outcomes?

Contact and participation

Comments, queries, and suggestions on this overview, and enquiries about participation in Task 62 | BRIDGE, are welcome.

Researchers, practitioners, policymakers, regulators, project proponents, host communities, and community-facing organisations can contribute published research, case experience, policy and regulatory perspectives, or tools and methods. Contributions may also include reviewing emerging findings and taking part in workshops and knowledge exchange. Contact the Operating Agent to discuss how your expertise or experience could contribute to the work packages, and how the Task's research and international exchange could support your own work.

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