

Early Stakeholder Engagement for Offshore Wind Planning: Lessons from Brazil's National Participatory Process

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Abstract

The expansion of offshore wind energy requires stakeholder engagement strategies capable of supporting decision-making before project implementation begins. In Brazil, the ongoing development of the regulatory framework created a unique opportunity to undertake stakeholder engagement during the strategic planning phase, before offshore areas were allocated and project-specific licensing processes started.

This paper presents the lessons learned from developing Brazil's National Stakeholder Engagement Study for Offshore Wind Planning, commissioned by the Ministry of Mines and Energy (MME), in partnership with the Energy Research Office (EPE) and supported by the World Bank Group (WBG). The study combined stakeholder mapping, document review, semi-structured interviews, technical meetings, and participatory activities across 94 coastal municipalities in eight Brazilian states, resulting in the identification and assessment of 1,215 stakeholders. Based on the analysis of stakeholder influence, interest, perception, and vulnerability, five stakeholder engagement profiles were established to support differentiated engagement strategies.

The study resulted in three complementary outputs: a framework establishing stakeholder engagement principles and stakeholder assessment, a Stakeholder Engagement Plan (SEP) for government-led planning, and a Stakeholder Engagement Roadmap for project developers throughout the project lifecycle. Particular attention was given to historically marginalized and underrepresented groups through tailored communication and engagement strategies.

The Brazilian experience demonstrates that stakeholder engagement should begin during strategic planning and continue throughout project development. By distinguishing government-led planning from developer-led project engagement and combining good international practices with local stakeholder knowledge, the study proposes a practical framework that may support offshore wind planning in other emerging markets.

1. Introduction

The global energy transition is reshaping coastal and marine governance as countries diversify their energy mix and expand renewable energy infrastructure. Although offshore

wind deployment remains concentrated in Europe and East Asia, several emerging economies, including Brazil, are establishing regulatory frameworks to support future sector development (GWEC, 2024). This expansion introduces complex social dynamics, as economic, cultural, environmental, and institutional interests converge in shared marine spaces.

Experiences from countries with established offshore wind sectors have demonstrated that early stakeholder engagement can build trust, improve transparency, and better capture local expectations and concerns before key planning decisions are made (Danish Energy Agency & DTU Aqua, 2024; Dutton & den Rooijen, 2025).

Brazil is currently developing its offshore wind regulatory framework, creating a unique opportunity to undertake stakeholder engagement before offshore areas are allocated and project-specific licensing begins. Unlike conventional stakeholder engagement plans prepared after project definition, the Brazilian study was developed before offshore areas were selected, allowing stakeholder engagement to support strategic sector planning.

This paper presents the lessons learned from developing Brazil's national stakeholder engagement study for offshore wind planning. It discusses how stakeholder mapping, institutional dialogue, and international good practices informed the design of engagement strategies and identifies key considerations for stakeholder engagement throughout the planning, licensing, implementation, operation, and decommissioning phases of offshore wind projects.

2. Developing Brazil's National Stakeholder Engagement Study for Offshore Wind Planning

The study was initiated by the Ministry of Mines and Energy (MME), in partnership with the Energy Research Office (EPE) and supported by the World Bank Group (WBG), to develop the technical basis for stakeholder engagement during Brazil's offshore wind planning process.

The methodological framework integrated Brazilian legal and regulatory frameworks with international environmental and social standards and technical guidance, including the World Bank Environmental and Social Framework (ESS10), the IFC Good Practice Handbook on Stakeholder Engagement, the IAP2 Spectrum of Public Participation, and the principles established under ILO Convention No. 169. These references were complemented by national technical studies and international lessons learned relevant to offshore wind planning.

The study combined secondary and primary data collection. Secondary data included the review of legislation, technical reports, scientific literature, public policies, and existing information on marine and coastal activities. Primary data were collected through semi-

structured interviews, technical meetings, and participatory activities conducted both remotely and in person. The study covered three coastal macro-regions (Northeast, Southeast, and South), encompassing 94 coastal municipalities across eight Brazilian states. In total, 122 interviews involving 168 participants supported the identification and characterization of 1,215 stakeholders.

Stakeholders were analyzed according to their level of influence, interest, perception regarding offshore wind development, and association with vulnerable or underrepresented groups, resulting in five engagement profiles described in Section 4.

To achieve this objective, the study *Stakeholder Engagement for Offshore Wind Development in Brazil* was organized into three complementary volumes: (i) *Foundations for Stakeholder Engagement and Stakeholder Mapping*; (ii) *Stakeholder Engagement Plan for Offshore Wind Planning in Brazil* (SEP); and (iii) *Stakeholder Engagement Roadmap for Offshore Wind Projects in Brazil*. Together, these outputs established stakeholder-specific engagement strategies and recommendations for the planning, licensing, implementation, operation, and decommissioning phases of offshore wind development.

3. Foundations for Stakeholder Engagement

The study adopted a set of guiding principles to ensure that stakeholder engagement supports transparent, inclusive, and socially legitimate decision-making throughout offshore wind development. Rather than focusing solely on participation activities, these principles provide the ethical and methodological foundation for engagement strategies applicable from the planning phase through project development. They emphasize that effective engagement requires not only access to information but also the recognition of different stakeholder capacities, interests, and rights.

The guiding principles adopted in the study include transparency and access to information, respect for human rights, equality and equity, participation and responsiveness, recognition of sociopolitical asymmetries, and continuous improvement. These principles are complemented by operational guidelines that promote accessible communication, inclusion of vulnerable and underrepresented groups, consideration of regional and sociocultural characteristics, proportionality in engagement approaches, and cooperation and continuous learning. Together, they provide a consistent framework for adapting engagement strategies to different territorial, institutional, and stakeholder contexts.

The study also adopts the IAP2 Spectrum of Public Participation ((International Association for Public Participation – IAP2, 2018) as the basis for defining engagement objectives and appropriate participation mechanisms. The five levels: Inform, Consult, Involve, Collaborate, and Empower, were used to guide the selection of engagement approaches

according to the characteristics of each stakeholder group and the different phases of offshore wind planning and project development, ensuring consistency with the World Bank Environmental and Social Standard 10 (ESS10).

4. Stakeholder Analysis and Engagement Profiles

Stakeholder analysis extended beyond the identification of organizations and social groups potentially affected by or interested in offshore wind development. The study adopted a structured analytical framework to understand stakeholder characteristics, their potential role in the planning process, and the most appropriate engagement approaches throughout the offshore wind development cycle.

Stakeholders were organized into nine thematic groups, representing government institutions, regulatory agencies, academia, the private sector, civil society organizations, artisanal fisheries, and Indigenous Peoples and traditional communities, among other marine and coastal users. Each stakeholder was assessed according to four complementary criteria: **influence**, **interest**, **perception** regarding offshore wind development, and **vulnerability**. This multidimensional analysis allowed the identification of not only institutional relevance but also potential barriers to participation and the need for differentiated engagement approaches.

Based on this assessment, stakeholders were classified into five engagement profiles: **Supporters**, **Collaborators**, **Neutral or Undetermined**, **Opponents**, and **Challengers**. Rather than representing fixed positions, these profiles were designed as dynamic planning tools to support communication strategies, define appropriate engagement objectives, prioritize resources, and anticipate potential areas of cooperation or conflict. The approach recognizes that stakeholder perceptions may evolve over time as information becomes available and the offshore wind sector progresses through different planning and project development stages.

5. Addressing Key Stakeholder Concerns through the Stakeholder Engagement Plan

The stakeholder assessment identified a series of issues that could affect both the quality of stakeholder engagement and the planning process for offshore wind development in Brazil. The most frequently identified concerns included information asymmetries, misinformation and competing narratives, limited participation of vulnerable groups, historical socio-environmental conflicts, institutional capacity differences, uncertainties regarding future consultation processes, and potential implications for existing economic activities, particularly fisheries.

These findings directly informed the development of the Stakeholder Engagement Plan (SEP). The proposed engagement strategies seek to provide clear, accessible, and reliable

information throughout the planning process, contributing to more informed participation, greater transparency, and better alignment of stakeholder expectations. Communication materials and engagement activities were designed to clearly distinguish planning activities from future project development and licensing stages, helping to reduce uncertainty and avoid misunderstandings.

The assessment also highlighted the importance of maintaining continuous dialogue rather than relying solely on information disclosure. For this reason, the SEP combines communication and engagement mechanisms throughout the planning process, recognizing that transparency and regular interaction are essential to strengthen trust and improve participation.

Special attention was given to vulnerable and traditionally underrepresented groups, including Indigenous Peoples, Quilombola communities, traditional fishing communities, and other coastal populations. Although formal FPIC procedures are not applicable during this strategic planning stage, the SEP recommends providing early access to information and opportunities for participation, creating the conditions for future consultation processes as the sector advances.

6. Key Engagement Considerations for Project Development

While the Stakeholder Engagement Plan (SEP) establishes recommendations for stakeholder engagement during the strategic planning phase led by the Brazilian Government, the Stakeholder Engagement Roadmap shifts the focus to project developers after offshore area use rights have been granted.

As projects become site-specific, stakeholder engagement should evolve from broad strategic discussions to direct engagement with potentially affected stakeholders and communities. The Roadmap complements, rather than replaces, the stakeholder engagement activities required under the environmental licensing process by recommending additional good practices throughout the project lifecycle.

The Roadmap recommends that project developers prepare a project-specific SEP based on stakeholder mapping and engagement profiles, combining communication, consultation, and collaboration strategies according to the characteristics of each stakeholder group. It also recommends a set of complementary engagement mechanisms, including capacity-building activities, information meetings, Local Monitoring Forums, grievance mechanisms, and, where applicable, Free, Prior and Informed Consultation (FPIC).

Rather than treating stakeholder engagement as an activity limited to environmental licensing, the Roadmap recommends a continuous and adaptive process supported by stakeholder perception monitoring, transparent communication, and regular review of

engagement strategies. This approach aims to strengthen relationships with stakeholders, improve environmental and social management, and support the long-term social sustainability of offshore wind projects in Brazil.

7. Lessons Learned

Three lessons emerge from this experience. First, stakeholder engagement should begin during strategic planning, before project development starts, allowing stakeholders to be identified, territorial dynamics understood, and potential conflicts anticipated before key decisions on offshore area allocation are made. Second, planning and project development require distinct engagement approaches: the planning phase emphasizes transparency, institutional dialogue, and strategic participation, while project development demands site-specific, continuous engagement with affected communities and adaptive management throughout the project lifecycle.

Third, stakeholder mapping should extend beyond identification to a systematic assessment of influence, interest, perception, and vulnerability, providing a practical basis for differentiated engagement strategies, particularly for historically marginalized groups such as Indigenous Peoples, Quilombola communities, and traditional fishing communities, who may face specific barriers to participation. By combining international good practices with local stakeholder knowledge and distinguishing government-led engagement during planning from developer-led engagement during project implementation, the study offers a practical framework that can support offshore wind planning in other countries establishing new regulatory frameworks.

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