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Bridging the Policy–Practice Gap in Community Engagement for South Australian Wind Farm Policy for Sustainable Energy Transition

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Abstract

Australia's rapid Renewable Energy Transition (RET) has been accompanied by persistent community concerns around wind farm siting decisions. Yet Federal, state, and territory governments have developed engagement policies independently to support sustainable community engagement (CE), but the level of engagement and their enforceability remain unclear. These gaps have weakened inclusive decision-making, which is a core part of the social dimension of sustainability. This study compares SA policy with the federal context. The study aims to fulfil two objectives: (I) to compare SA policy with the federal baseline using a Diverge, Extend and Shortfall typology, and (ii) to assess the level of CE using the International Association for Public Participation (IAP2) Spectrum. Accordingly, ten Federal and SA policy documents (2015–2026) were purposively selected and analysed using document analysis (coded against IAP2). Findings revealed that SA both extends and diverges from federal policy. The Hydrogen and Renewable Energy (HRE) Act 2023 extends federal expectations. None of the ten policies requires engagement beyond the IAP2 Consult level. Several documents aim for collaboration, but their mechanisms only reach consultation. Policymakers should turn stated aims in current policies into enforceable ones, as voluntary aims were not delivered. The study also offers IAP2-based guidance for assessing engagement in energy policy, which can inform future research.

Keywords: community engagement; IAP2 Public Participation Spectrum; social licence; social sustainability; South Australia; renewable energy transition; wind farm policy

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1. Introduction

Australia is undergoing a rapid transition from a fossil-fuel-based electricity system toward one increasingly powered by Renewable Energy (RE) sources. Among these, wind and solar have emerged as the predominant renewable sources driving this shift [1]. Although utility-scale and rooftop solar photovoltaic (PV) installations together contribute a larger share of Australia's renewable electricity generation, wind energy has attracted disproportionate regulatory and community attention over the past decade [2]. This is most clearly evidenced by the Australian Government's establishment of a dedicated National Wind Farm Commissioner in 2015, which created a complaints-resolution office specifically for wind farm disputes three years before an equivalent

oversight role was extended to solar and battery storage installations in 2018 [3]. Moreover, unlike solar panels, which are typically low-profile or situated on private rooftops out of public view, wind turbines are large, visually prominent, and audible structures that remain within the everyday sightlines of host communities for decades. As a result, community opposition to wind farm proposals has been more extensively identified than opposition to solar developments [4–6], generating a substantial body of Australian research into the drivers of social acceptance and rejection, even in recently initiated wind farm infrastructure development projects [2,4,7]. The scale and capacity of wind farm projects have expanded from a negligible base to a substantial share of national generation within two decades [8,9]. This growth has been driven primarily by national market mechanisms designed to incentivise investment in additional renewable generation, mainly through the Net Zero target under the Paris Agreement [8] in 2015 (international context). Yet, the deployment of individual wind farms has often proceeded inconsistently: some projects move through approval and construction with little friction, while others face years of delay, legal challenge, or outright rejection, driven by opposition from host communities. Many proposals face opposition from host communities concerned about visual amenity, noise, and the perceived imposition of large energy infrastructure on rural landscapes [10–12]. This matters for the social dimension of sustainability, including inclusive decision-making (SDG 16) and the delivery of clean energy and climate action (SDGs 7 and 13) [13,14].

'Community engagement' or 'public participation' is a main concern in Australian RE policy [15]. Policy documents regularly invoke these terms to reassure communities about their concerns. Moreover, it implies a clear, uncontested view of CE and a shared understanding of its importance in natural resource governance. A vast body of academic research has explored community perspectives on social acceptance of RE infrastructure projects, yet the nature of the problem has shifted slightly over time [14–16]. Early studies in this area framed community opposition largely as a problem of individual attitudes or knowledge deficits, often labelled through the lens of Not in my Backyard Syndrome (NIMBYism) [17,18]. More recently, researchers have highlighted the need for significant policy change instead, arguing that people push back when they do not trust how the decision was made or feel it was unfair [19]. Therefore, policies that build the background for social acceptance of RE infrastructure have also evolved over time. CE has become a persistent policy problem for onshore wind farm infrastructure developments in Australia [2,8,18], but it is not static. Since 2015, the Australian federal government has progressively built a dedicated institutional response, including the National Wind Farm Commissioner, then the renamed and expanded Australian Energy Infrastructure Commissioner, and more recently the Capacity Investment Scheme, to promote CE and obtain social licence for RE projects. Meanwhile, state and territory governments have continued to hold primary responsibility for planning and making decisions that most directly shape CE approaches to wind farm proposals [3,19,20]. As a result, each state has developed its own rules for engagement in addition to Federal policies. Victoria and New South Wales (NSW) host most of Australia's existing onshore wind farm developments [20]. Each has taken a different approach to setback distances, consultation structure, and benefit sharing [21,22]. SA addresses the same questions through its own policy framework, the Hydrogen and Renewable Energy (HRE) Act, the most recent and popular policy [23].

This division of responsibility has created disparities in the policy landscape for project proposal approval across states and territories [24]. Moreover, early policies often used the term 'engagement' loosely, without saying who should be engaged, when, or how [24]. Over time, policies have become more specific, and more targeted engagement has been linked to stronger community support. Engaging the right community, at the

right project stage, and at the right level is now seen as an effective use of limited resources, especially time and cost [25]. Under (insufficient) engagement can leave communities feeling excluded [26]. Over-engagement can cause consultation fatigue and frustration [27]. Once either occurs, it is very difficult to turn that opposition into acceptance.

On the other hand, despite this significant introduction and alteration of new policies for RE project development, research on Australian wind farm policy in relation to social acceptance or CE remains scarce. In support of that fact, a systematic search of the Web of Science database (conducted on 15 July 2026) using the string ("wind" AND "policy" AND "Australia") AND ("social acceptance" OR "community engagement") returned only nine peer-reviewed journal articles meeting these criteria. Five of them were based on wind farms in Australia. Most describe community attitudes or engagement practice. The attitude studies point to trust, fairness and place attachment [15,28,29]. The practice studies show that legal requirements often stop at procedural compliance, and that developers' plans use the language of deeper engagement [28]. All of them leave one gap. No study codes each policy document for the engagement level its wording suggests and the level its rules guarantee. This happens because developers set community engagement before a project begins. When a document promises more than it guarantees, trust can fall [4,. Mostly, other remaining publications (reports, guidelines, charters) were either confined to a single state's jurisdiction or produced by non-governmental and industry bodies, such as the Clean Energy Council and RE-Alliance. Across those nine peer-reviewed journals, three main gaps emerged. First, in Australian renewable energy projects, the federal government works mainly through funding and national frameworks, and states control planning approval. Thus, no study in this search examines both levels side by side. Second, existing studies mostly describe engagement practice or community attitudes [27,30]. None examines whether deeper engagement commitments are also more enforceable. The two can differ. A document can promise deep involvement without any rule that requires it. Third, within this search, no study separates what policy documents promise from what they guarantee. This matters because documents set community expectations before a project begins. When a document promises more than it guarantees, trust can fall [31]. With this background, a clear gap remains between what CE policy aims for and how engagement is practised in wind farm projects in the Australian context. Further, the federal and state governments set their own policies, which do not always align. As a result, communities, developers and other affected parties may find it difficult to know which rules apply and whether they can be enforced. Against this background, this study aims to assess how federal and state policies differ in the CE for wind farm projects, with reference to the IAP2 Spectrum. Accordingly, this study maps existing CE policies to the five IAP2 spectrum levels: Inform, Consult, Involve, Collaborate, and Empower. This shows how far each policy involves the public in decisions. To compare policy differences between federal and state governments, SA was selected among states for two reasons. First, (i) SA has hosted large wind farms for longer than most states. It has already faced engagement issues [23]. Second, (ii) this policy mapping forms the basis for a future wind farm case-based study, which is ongoing. Thus, understanding the policy setting first allows the case studies to test how these rules shape engagement in practice.

To achieve the study's aim, it has two objectives:

First, (i) to identify where SA's policy settings diverge from, extend, or fall short of the national policy baseline while tracing the evolution of CE policy for wind farm developments

Second, (ii) to examine the level of community engagement provisions across the reviewed policy documents using the IAP2 Public Participation Spectrum.

This paper uses a document review approach, elaborated in Section 2, to examine relevant publicly available policy documents in the national and SA wind farm policy landscape. Section 3 introduces the IAP2 Spectrum, which supports the comparative discussion. Then Section 4 discusses the adopted methodology. Section 5 then presents results and a brief comparative discussion, while mapping existing CE policies to the five IAP2 spectrum levels. Finally, Section 6 discusses conclusions and future research directions.

2. Policy Landscape

2.1. National Policy Landscape (Australia)

Government intervention for societal acceptance of the Renewable Energy Transition (RET), specifically for wind farm development (in this context), did not begin suddenly; it evolved over a decade before the Renewable Energy (Electricity) Act 2000 and the Environment Protection and Biodiversity Conservation Act 1999 [20]. Those two foundational instruments underpin Australia's RET and contain no reference to community consultation, notification, or engagement in siting or approving infrastructure. As community opposition emerged during the implementation of RE infrastructure projects, the policy requirement for social acceptance through public participation came into the spotlight [28]. This gap created the impetus for social acceptance in RE projects. Accordingly, CE became a distinct, named requirement of Federal policy in 2015 with the creation of the National Wind Farm Commissioner. Accordingly, the systematic document review in this section is limited to the seven Federal-level policy documents published from 2015 onward (refer to Table 1 D1 to D7) out of the ten documents presented in Table 1.

Table 1. IAP2 Public Participation Spectrum.

Level of Spectrum	Public Participation Goal	Promise to the Public	Indicative Wind Farm Policy Mechanism
Inform	Provide balanced, objective information to assist understanding	"We will keep you informed."	Public notice of a proposed wind farm application; published EIS with no formal reply mechanism
Consult	Obtain public feedback on analysis, alternatives, and/or decisions	"We will listen to and acknowledge concerns and provide feedback on how input influenced the decision."	Statutory submissions/comment period, with a requirement to respond to issues raised
Involve	Work directly with the public to ensure concerns and aspirations are understood and considered	"We will work with you to ensure your concerns are directly reflected in the alternatives developed."	Standing community consultative committee with input into siting or layout options
Collaborate	Partner with the public in each aspect of the decision, including developing alternatives and identifying a preferred solution	"We will incorporate your advice and recommendations to the maximum extent possible."	Co-design of community benefit-sharing schemes; joint working groups with binding input
Empower	Place final decision-making in the hands of the public	"We will implement what you decide."	Community-owned wind farm structures; individual landholder consent/veto rights

This section proceeds chronologically, addressing each of the seven documents (D1 to D7) in turn: what each document is and when it was published, how it specifies CE and social acceptance provisions, and how its approach compares, argumentatively, with the

documents preceding it. This document-by-document structure is a deliberate methodological choice, not a narrative convenience.

2.1.1. Review of the National Wind Farm Commissioner: Final Report—2018

The Climate Change Authority's Review of the National Wind Farm Commissioner, published in 2018 [32], arrived three years after the Commissioner's establishment in 2015 to evaluate its performance. As an evaluative rather than policy-creating document, it considered CE retrospectively; it assessed how well the Commissioner's voluntary, complaints-based model had served affected communities. This review is discussed here, as it was the first step in identifying what the National Wind Farm Commissioner should be involved in the engagement process, which has evolved to date. By then, the Climate Change Authority (an independent statutory agency in Australia) found that the Commissioner had made several best-practice recommendations to improve how the wind industry and governments proceed with affected communities. This role is now mentioned in every policy document, with work on enhancing accessibility and transparency in complaints-handling services, and the office has generally exceeded expectations. Accordingly, after the legislation came into force, community opposition to wind farms arose, including concerns about the lack of benefit sharing (financial and social benefits). Thus, the "National Wind Farm Commissioner" role appeared at all stages in handling the community opposition.

2.1.2. Offshore: Electricity Infrastructure Act 2021.

The Offshore Electricity Infrastructure Act is the first primary legislation among the ten to address CE, rather than guidance, review, or industry-authored material [33]. The Act creates a licensing and regulatory framework for building, installing, operating, maintaining and decommissioning offshore RE infrastructure (such as offshore wind farms) and offshore electricity transmission infrastructure (such as undersea cables). It commenced in June 2022, even though it was passed in 2021. The Act covers RE more broadly than wind. It also applies to generation and transmission infrastructure linked to the sun, ocean tides and currents, rain, geothermal and other potential sources, though offshore wind has been the main focus so far. The Act makes it illegal to build offshore infrastructure projects without a licence. It creates four licence types and sets the criteria a project must meet before the Minister for Climate Change and Energy can grant one. It also sets rules for how projects are safely built, run, and removed at the end of their life, and requires developers to provide financial security to ensure this happens. Two bodies mainly administer and regulate the framework: the Offshore Infrastructure Registrar and the Offshore Infrastructure Regulator. Directly, it is not primarily a CE policy reference. In terms of social acceptance, the relevant angle is likely the management plan process, since a management plan is a central compliance gate that requires stakeholder consultation and evidence-based risk controls. That consultation requirement is where community input enters the process, rather than the Act's core licensing provisions.

Afterwards, the practical depth was tested only through a consultation board, when the government proposed amendments to the Act's regulations in 2024. Accordingly, a formal community consultation on the Act's technical aspects ran from 12 April to 12 May 2024 and drew more than 100 submissions, which the Department reports directly altered the final management plan application process, assessment timeframes, and consultation requirements.

2.1.3. National Energy Transformation Partnership—2022

The National Energy Transformation Partnership (NETP), agreed by federal, state and territory energy ministers in 2022 [34], differs from the previous documents as an

intergovernmental coordination framework rather than a single-jurisdiction instrument. Australia's Energy Ministers agreed to establish the NETP as a framework for national alignment and cooperative action by governments to support the smooth transformation of Australia's energy sector. The Partnership document itself explicitly names CE as a success factor. Energy Ministers recognise that broader enablers such as workforce readiness, clean energy supply chains, and CE and acceptance will shape the success of the energy transformation. Following the review, the NETP set up a new Community Engagement Working Group. This group's job is to spot emerging problems and help coordinate government responses. The NETP also committed $450,000 to a research project that will talk directly with local community groups and First Nations representatives, aiming to build better, more locally tailored engagement strategies. Following the 2023 Community Engagement Review (Section 2.1.5), NETP used its own structure to set up a Community Engagement Working Group. In contrast, the document does not create a direct channel for community input. It names CE as a priority. It does not build a mechanism for the public to respond, consult, or be involved. The NETP informed the public about what's going on with the project and how their input will be considered. Nonetheless, the practicality is measured by real engagement. So NETP is not an engagement tool by itself. It is more like a starting point, something that sets up the conditions for real engagement work to happen afterwards.

2.1.4. Capacity Investment Scheme—2023

The Capacity Investment Scheme (CIS) is a Commonwealth mechanism to accelerate new renewable generation and storage. It was created in 2023 as a $70 billion investment in RE generation over four years. Under this policy change, a RE project's benefits, such as reliability, emissions reductions and selling prices, are weighed against its expected cost. As a result, when selecting a competitive bid, the developer's commitment to community, including First Nations, matters in assessing each project's merit. Projects must also show how they have engaged with communities and supported regional economic benefits. From Tender 5 (section in the CIS document), tenders moved to a one-stage, merit-based process with a strong weighting on community and First Nations engagement and social licence commitments. Successful projects must make contractually binding social licence commitments. Significantly, these commitments are contractually binding. This shows a stronger enforceability than the other policy discussed above. However, the Scheme does not specify how deeply communities should be involved in decisions. While it highlights where enforceability is real, it still leaves the level of engagement to the developer. The Capacity Investment Scheme gives First Nations benefits a dedicated route. It does not appear to name non-host neighbours, who live near turbines but do not host them. Policymakers should close the neighbourhood gap by adding neighbour provisions. Moreover, First Nations provisions should not be weakened when doing so.

2.1.5. Community Engagement Review—2023

The Community Engagement Review (CER) is an independent Commonwealth review of how RE developers engage with communities [35]. The Minister for Climate Change and Energy commissioned it in July 2023. The review heard from a range of stakeholders, including landholders and community members living close to developments. It completed the review at the end of December 2023 and released it in February 2024. The review documented a serious trust problem. It found distrust between communities and developers, with 92% of respondents dissatisfied with how developers engaged with them and 89% dissatisfied with how their concerns were handled.

The review has presented nine recommendations, including appointing an independent body to run a developer rating scheme, reducing unnecessary engagement through better site selection, and revising planning and approval processes to make engagement more efficient. The government accepted all nine in principle, but many of the recommendations fall to state and territory governments to implement. This document reveals the opposite end from the CIS. It highlights that the engagement problem is strong and its enforceability is weak. However, the review is advisory; the government's acceptance is "in principle", and implementation is largely handed to the states where the renewable infrastructure is developed. As a result, developers who fail to meet the standard are simply left off the register, not penalised.

(i) ECMC Response to the Community Engagement Review

The ECMC Response is the joint intergovernmental reply to the 2023 CER (refer to 2.1.5). The Energy and Climate Change Ministerial Council (ECMC) is a forum where the Commonwealth, states and territories, and New Zealand work together on priority energy and climate reforms. The federal Minister for Climate Change and Energy chairs it. The ECMC agreed to the response on 19 July 2024. It outlines how the Australian Government and the states and territories are addressing the review's recommendations, as well as broader social licence issues. The response is a coordinating document rather than a new reform package. The ECMC responded to each of the nine recommendations, building on existing work across governments. It acknowledges that most states and territories already run a broad range of programmes addressing many issues the review raised. It then shows how those programmes map to each recommendation. A companion Schedule and development of the developer rating scheme. The ECMC also committed $450,000 to a behavioural research project. It explores engagement with local community groups, First Nations representatives and other stakeholders in areas hosting renewable infrastructure. It aims to develop communication strategies that increase public support for RE infrastructure, including identifying key messages and messengers and addressing misinformation. In May 2026, the ECMC received a final progress report confirming that phase one is complete. The ECMC also set up a Community Engagement Working Group to identify new issues, share best practices, and coordinate government responses.

This response document has added less enforceability to the review. Its main move is to reframe existing state programmes as a response to the recommendations. It did not create new obligations on developers. To assess the level of engagement, the findings from the behavioural research project are also worth a closer look. Its goal is to increase public support through better messaging. That is one-way communication, closer to informing the community. It treats the engagement problem partly as a communication problem, not a power-sharing one.

2.1.6. Renewable Energy Transformation Agreements (Framework and SA Agreement)—2024

The Renewable Energy Transformation Agreements (RETA) framework, and specifically the first bilateral agreement signed with SA on 10 July 2024, represents the strongest implementation of the CER's recommendation for Federal-state alignment. Through them, governments commit to working together to address market and non-market barriers to RE investment in each jurisdiction. They support the national target of producing 82% renewable electricity by 2030. RETAs are tied directly to the CIS (refer to Section 2.1.4). Through each agreement, the Federal government sets a minimum capacity allocation for that jurisdiction under the CIS. SA was the first state to sign a final RETA, announced on 10 July 2024. In return, SA committed to delivering its Hydrogen Jobs Plan and setting up its own grid reliability mechanism to replace the national framework.

Significantly, CE appears as one of the shared commitments. The SA agreement includes a joint commitment to practical actions and new policies, practices and processes that improve CE and deliver better social and economic outcomes. This includes increasing First Nations participation in planning, building and operating new assets.

The RETA is an agreement between Federal and state governments. Its obligations run from one government to another, not to developers or communities. It does not specify what engagement should look like or who must do it. The RETA is also the main bridge between Federal and SA policies. It channels CIS capacity into SA, and with it the CIS merit criteria on community and First Nations engagement. Thus, the RETA itself may be weak on engagement, while the CIS carries stronger mechanisms.

2.1.7. First Nations Clean Energy Strategy—2024

First Nations strategy was developed through more than a year of consultation with First Nations communities, industry, and governments. It is built around three goals: empowering First Nations communities with clean energy, achieving economic benefits, and enabling equitable partnerships [36]. It was released on 6 December 2024 and covers 2024 to 2030. It is a key priority under the National Energy Transformation Partnership. All Australian energy ministers released it together, so it has intergovernmental standing rather than being a Commonwealth-only document. Up to 2000 Traditional Owners, community representatives, industry, government and experts attended nine roundtables between March 2023 and February 2024. The Department received 90 public submissions. Energy Ministers endorsed the framework in July 2024, ahead of the final release.

The Strategy presents six foundational principles. These include First Nations peoples' right to live on their land with affordable clean energy, and the recognition and protection of cultural heritage throughout the transition. It also calls for including Traditional Owner groups in project opportunities and decision-making. Its interpretation of partnership, self-determination, and decision-making points toward "collaboration" and "empowerment". Its enforceability is low. It is a strategy, not a regulation, and it places no direct duties on developers. Its combined effect comes mostly through other instruments, especially the CIS. So, no instrument yet combines high depth with strong enforceability.

2.2. South Australia's Wind Farm Policy Landscape

SA was the first Australian state to develop utility-scale wind farms, with the Starfish Hill wind farm, a 34.5-megawatt facility near Cape Jervis, commissioned in 2003. The state set an initial target of 26 per cent renewable electricity by 2020 in 2002, raising it in 2009 to 33 per cent by 2020 [24]. Installed wind and solar capacity expanded rapidly thereafter, reaching more than 2600 megawatts of combined capacity by the late 2010s [32,34]. SA's net 100 per cent renewable electricity target, originally set for 2030 [24], was subsequently brought forward to 2027, with the renewable generation share rising from around one per cent in 2007 to approximately 69–72 per cent by 2022-2023. More recently, the Hydrogen and Renewable Energy (HRE) Act 2023 introduced Australia's first dedicated hydrogen/renewable licensing framework [37]. The policy landscape for wind farms rests on two regulatory pathways within the national framework set by the CIS and the SA RETA. Most onshore wind farms have been assessed under the Planning, Development and Infrastructure Act 2016 (PDI Act) and the Planning and Design Code. The Planning and Design Code is made under the PDI Act 2016 (SA), which sets the state's general rules for development assessment, public notification and appeals. This study did not discuss the PDI Act because it is not specific to RE, but it provides the legal basis for the Code provisions analysed here.

The HRE Act 2023 (HRE Act) is the newer pathway. It commenced on 11 July 2024. It licenses and regulates the full lifecycle of large-scale hydrogen and RE projects. In addition, the SA state government has published subsequent documents that impose requirements alongside other state and Federal government policies. This section proceeds chronologically, covering three documents: what each document is, when it was published, and how it specifies CE and social acceptance provisions.

2.2.1. Wind Farms Environmental Noise Guidelines—2021

The Wind Farms Environmental Noise Guidelines are issued by the Environment Protection Authority (EPA SA) [38]. They were first issued in 2009 and updated in November 2021. They aim to help developers, planning and enforcement authorities, government agencies, and affected communities assess wind farm noise impacts. Their core objective is to balance the benefits of wind energy with protecting surrounding communities from adverse noise. Wind farm noise is excluded from the Environment Protection (Noise) Policy 2007, so these guidelines are the main noise instrument for wind farms in SA. The guidelines set clear limits, i.e., predicted noise must not exceed 35 dB(A) in rural living localities, 40 dB(A) in other zones, or background noise plus 5 dB(A). The planning authority refers wind farm applications to the EPA, linking the guidelines directly to the approval process.

Communities appear in the guidelines mainly as noise receivers. The criteria are designed to protect residents who have no agreement with the developer. Developers cannot avoid their obligations under the EP Act by signing agreements with landowners. After construction, communities gain a reactive role. The EPA can require a repeat compliance check after any potentially valid complaint. It can issue an environmental protection order under Section 93 of the EP Act, which may restrict turbine operation. Communities are informed, but they have no role in setting criteria or reviewing assessments. Its enforceability is moderate to strong. Limits become conditions of approval, and the EPA retains post-construction power. Those powers are triggered by complaints, though. Enforcement starts only after a conflict emerges.

The treatment of landowner agreements is also worth noting. It shows the uneven position of host and non-host residents, a familiar source of tension in wind farm communities. However, this mechanism highlights a critical pitfall in current policy: the guidelines give communities a role only after problems arise. Enforcement begins with a complaint, suggesting trust has already been lost. The guidelines therefore manage distrust rather than prevent it.

2.2.2. Planning and Design Code—Rural Provisions—2016

The Planning and Design Code is SA's single statutory planning rulebook, made under the Planning, Development and Infrastructure Act 2016 [39]. Its rural provisions began on 31 July 2020. They replaced more than 40 separate council Development Plans that previously set zones and planning rules across rural SA. Any development application lodged after that date is assessed against the Code. The Code actively supports RE. Wind farms, solar farms and storage are listed as envisaged land uses in the Remote Areas Zone and the Rural Zone. This reflects a long-standing state policy of enabling RE in suitable locations. In the Rural Zone, RE facilities are restricted from development in the Significant Landscape Protection Overlay and the Character Preservation Area Overlay. Restricted development faces a more rigorous level of assessment. For instance, turbines need a base 2 km setback from settlement, township, rural living and rural neighbourhood zones. This increases by 10 m for every metre of tip height above 150 m. A 200 m turbine therefore needs a 2.5 km setback. Noise is then addressed by reference to the EPA SA Wind Farms Environmental Noise Guidelines, which link the two documents.

In contrast, under the 2012 Statewide Wind Farms Development Plan Amendment (beyond this study's timeline), a wind farm became Category 3 development, with third-party appeal rights, if a turbine was within 2 km of a non-associated dwelling or township zone. Under this Planning and Design Code, most wind farms' performance is assessed, and those appeal rights disappear. Setbacks became larger, but communities lost a legal avenue to challenge decisions. As a result, the Code swapped participation rights for distance (from the turbine). This matters because it runs against the national direction in Federal policy documents, which all call for stronger engagement. In brief, Communities are informed about a project and can comment, but their comments carry no guaranteed weight. It is highly enforceable for developers, since setbacks and assessment rules are binding. For communities, it offers little leverage once a decision is made.

(i) Renewable Energy Facilities: Development Assessment Process (fact sheet)

The fact sheet is an official guidance issued by PlanSA that explains how the PDI Act and the Planning and Design Code apply to RE facilities [40]. PlanSA published this fact sheet in 2023, three years after the Code commenced. The fact sheet is explanatory, not regulatory. It does not give communities any additional power, submission opportunity, or right of appeal beyond what the Code already provides. However, it clarified that community interests are represented through two separate channels, direct public submission and indirect council referral, neither of which carries a right of appeal. Even in plain-language guidance, the state describes community involvement as a procedural step, not as participation in shaping projects. It is not enforceable, since it is guidance.

2.2.3. Hydrogen and Renewable Energy Act 2023 (SA)

The Hydrogen and Renewable Energy Act 2023 (HRE) Act passed the SA Parliament with unanimous support in November 2023 and commenced on 11 July 2024 [37]. It is Australia's first comprehensive regulatory framework for licensing the full lifecycle of hydrogen and RE projects. It brings land access, environmental impacts and First Nations' rights into a single regulatory process. The Act legislates engagement and consultation as explicit statutory objects, supported by a requirement for a formal Consultation Plan and by prescribed landowner and council notices under Section 32. The old system (the Code) only asks the community what they think after a company has already picked a spot and lodged an application. This new law (HRE Act) does so earlier; it engages with landholders and First Nations groups before deciding which areas are even open to development. It also states in the law itself that consulting communities is one of its goals, not just a box to tick during approval. In contrast, it asks companies to develop a specific plan for how they will engage the community for each project, rather than using the same one-size-fits-all process everywhere. It is a genuine effort to include CE in SA's RET, rather than the procedural notification or submission model set out in the Code.

Among all the documents discussed under Sections 3 and 4, the HRE Act is the strongest engagement instrument, as it goes beyond the typical Federal policy settings by making engagement a licensing requirement rather than an aspiration. Its strength depends heavily on legal strength. "Native title holders" (First Nations) and landowners receive real rights, including agreements, compensation and information. Neighbours and the wider community, who hold no title, are mainly entitled to be consulted. So, the Act builds engagement around property and native title rights, not around community. This matters for wind farms, where non-host neighbours are often the main source of opposition. For instance, Host landowners are farmers who have turbines on their land. They sign a lease with the developer and receive regular payments, often for 25 years or more. For many, this is a stable extra income alongside farming. Nonetheless, non-host neighbours (who live nearby but have no turbines on their land) still see the turbines, hear

them, and experience construction traffic and landscape changes. They receive no lease payments. International research on wind farms often finds that this sense of unfairness, rather than the turbines themselves, drives much of the opposition [41,42].

Having traced these ten documents individually, a consistent difficulty emerges in comparing them directly: they are not instances of the same kind of instrument. An Act of Parliament, a supporting policy document and an intergovernmental agreement cannot be ranked against one another on their own terms. Each works through different institutional mechanisms. These gaps have practical effects. For instance, a relatively small number of developers deliver large-scale RE infrastructure in Australia. Over time, their engagement practices become established as the accepted standard, whether they are effective. Where policy leaves engagement to developers, these practices can contribute to community opposition, project delays, cancellations and cost overruns. The HRE Act illustrates this. It requires licensees to prepare a consultation plan as part of the approval process. The developer largely shapes the content and quality of engagement in that plan, so plans may differ in format and depth from one project to another. At the same time, these documents' enforceability is difficult to assess, as federal and state pathways overlap and sometimes diverge. Thus, as an important part of analysing existing policies, Section 5 discusses the overlapping or divergent nature from the researcher's perspective. To support this, the IAP2 Spectrum provides a common reference point for comparison by assessing the level of engagement, which is also practised in the Australian RE context.

3. IAP2 Public Participation Spectrum

The International Association for Public Participation (IAP2) [43] provides a five-level scale, from Inform through to Empower. Critically, applying IAP2 consistently across all ten documents also makes it possible to assess which level each document is at, which can be easily conflated with the depth of engagement a mechanism offers. Accordingly, the following Section 3 briefly presents the IAP2 levels of CE that are easily conflated with the depth of engagement a mechanism offers. The IAP2 was selected over alternatives such as Arnstein's Ladder of Citizen Participation [44]. The study asks not whether documents mention engagement, but how much power they give communities over wind farm decisions. The Spectrum also provides a common reference point for comparison. The reviewed documents include legislation, strategies, guidelines and intergovernmental agreements. These cannot be compared directly, since each works through different mechanisms. Therefore, the spectrum allows each document to be placed on the same scale, regardless of its type or issuing body.

Accordingly, Table 1 presents a brief explanation of the IAP2 Spectrum with (i) five levels in the IAP2 Spectrum, (ii) what the public participation goal is at each level, (iii) mainly the developers' (in the case of wind farms or any other RE development projects) promise to the communities, as their role would be and finally (iv) how each level is involved in the wind farms' practical policy mechanism (i.e., public notifications via letter, door knocks, benefits sharing schemes).

The five levels in Table 2 differ mainly in how much influence the public has over the final decision. Each step up the Spectrum adds a new element of public control. For instance, the difference between Inform and Consult lies in whether the public can respond. At the Inform level, communities receive information but have no formal way to reply (i.e., a public notice of a wind farm application). At the Consult level, communities can give feedback, and decision-makers commit to acknowledging it and explaining how it influenced the outcome. A statutory submission period with a duty to respond to issues raised meets this threshold. A comment period with no such duty is closer to Inform. The step from Consult to Involve relates to timing and continuity. Consultation usually happens at one point, often once a proposal is well developed. Involvement requires

ongoing contact throughout the process, so that community concerns shape the options being considered. For instance, a standing community consultative committee with input into turbine siting or layout reflects this level. The final step, from Collaborate to Empower, is about who holds that final decision. At the Empower level, the public makes the decision, and the decision-maker commits to implementing it. A significant example is community-owned wind farms, where local shareholders decide on development and operation.

Table 2. Document analysis: policy documents published from 2015 to 2026.

Code	Policy/Document	Published Year	Federal Level	SA Level	Source: Federal and SA Institutes
D1	Review of the National Wind Farm Commissioner: Final Report (Climate Change Authority)	2018	✓		Climate Change Authority (Australian Government)
D2	Offshore Electricity Infrastructure Act 2021	2021	✓		Parliament of Australia. Policy led by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and its predecessor Department
D3	National Energy Transformation Partnership	2022	✓		Energy and Climate Change Ministerial Council (ECMC), published through DCCEEW
D4	Capacity Investment Scheme (policy and tender framework)	2022 (expanded 2023)	✓		DCCEEW
D5	Community Engagement Review (DCCEEW/AEIC)	2023–2024	✓		DCCEEW, led by the Australian Energy Infrastructure Commissioner (AEIC)
D6	Renewable Energy Transformation Agreements (framework + SA agreement)	2024	✓	✓	DCCEEW with state governments. The SA agreement is between the Federal and SA governments
D7	First Nations Clean Energy Strategy	2024	✓		DCCEEW, with the First Nations Clean Energy Strategy working group
D8	Wind Farms Environmental Noise Guidelines (EPA South Australia)	2009 (updated 2021)		✓	Environment Protection Authority (EPA) SA
D9	Planning and Design Code—rural provisions (SA Planning Commission)	2020		✓	State Planning Commission (SA)
D10	Hydrogen and Renewable Energy Act 2023 (SA)	2023		✓	Parliament of SA, administered by the Department of Energy and Mining

The mechanisms in the final column are indicative, and other mechanisms may also fit each level. They served as reference points when positioning each document in the comparative analysis. Accordingly, Section 5 presents results and a comparative discussion, mapping the discussed documents (Sections 2.1 and 2.2) to the IAP2 Spectrum.

4. Methodology

This study adopted a qualitative research approach and used document analysis as its primary method. The study therefore systematically reviewed relevant policy and legislative documents to meet the research objectives.

Document Review Approach

Document analysis is a systematic procedure for reviewing or evaluating documents. As with other qualitative approaches, this process goes beyond describing document content; it requires the researcher to interpret the material critically. This generates evidence-based insight from existing documents and a more developed understanding of the area being examined [45]. This study adopts a document review approach that aligns with the study's aim of mapping existing CE policies to wind farms with reference to the five IAP2 spectrum levels. As Ernst [46] argues, document analysis is commonly used alongside other qualitative research methods for data triangulation. However, in most common policy analysis research, document analysis is the only or first step of collecting secondary data [8,15]. The review spans the period from the introduction of the Paris Agreement at the United Nations (UN) Climate Change Conference (COP21) in Paris in December 2015 to the present (mid-2026). The period begins in 2015 because the Paris Agreement and Australia's related national commitments accelerated RE policy, and community concerns about wind farms gained national policy attention that year [9]. The documents were selected based on the following four selection criteria. First, it was published, or last formally updated, in 2015 or later. Second, it was issued by the federal government, the South Australian Government, or an intergovernmental body. Third, it addressed CE consultation or social acceptance for wind RE projects. Social acceptance included protections for residents' amenities, such as noise limits. Fourth, it was publicly available. Documents were found through official government and legislation websites. Where a document had been updated, the updated date was used. This gave 10 documents. Seven sit at the federal level and four at the SA level. The Renewable Energy Transformation Agreement sits at both levels. Table 2 lists the source institution for each document. Accordingly, the following documents presented in Table 2 are used for the document analysis.

Documents were sourced from official government and regulator repositories and supplemented by industry association publications used only to corroborate publicly available factual and chronological details. Significantly, a five-step analytical structure was used to code and analyse the ten documents (refer to Appendix A), which guided the content of the findings section. Additionally, the coding reliability was strengthened through a structured, transparent strategy. Each Code was supported by evidence from the source text, including a quote (if available with a section or regulation number). The IAP2 levels were confirmed only where a rule or mechanism existed, which reduced subjective judgement [47,48]. However, the use of a single main coder is acknowledged as a limitation of the data coding and can be mitigated through case study-based validation. Following, Section 5 presents the analytical findings gathered through the ten documents.

5. Results and Comparative Discussion

This section deliberately addresses the core outputs that support the two objectives at different depths. The first objective compares SA policy with the Federal baseline. Section 5.1 compares two entities and their policies supporting CE. Next, the Section examines how SA policy relates to that baseline, using the Diverge, Extend and Shortfall typologies. Extend describes where SA goes further than the baseline (Federal policies). Diverge describes where SA moves in a different direction. Shortfall describes where SA falls short or is silent. The second objective assesses each document's level of engagement. Section 5.2 maps each document onto the IAP2 Spectrum and considers whether its

engagement mechanisms are legally binding. Taken together, these two parts show not only what policy says about CE, but also what it requires in practice.

5.1. Federal and South Australian Policy Baseline

Compared with SA's published state-specific policy documents, the Federal baseline is more 'advanced' in terms of jurisdiction, but it obscures more than it reveals. However, it is still unfair to say SA is less advanced in its policy provisions, even though the state itself is leading on net zero by 2030 [24]. For instance, both solve the same problem in different ways, or SA has gone further than the Federal has, in a specific, demonstrable way. Thus, it is not always clear that Federal policy is far beyond state policies. The typologies were created because existing concepts, such as policy convergence, mainly show whether policies are similar [41]. In this study, SA policy related to the Commonwealth baseline in three distinct ways. It sometimes went further, sometimes moved in a different direction, and sometimes had no counterpart at all. Each situation carries different implications for policy, so each was treated as a separate category.

Comparative Typologies: Divergence, Extend and Shortfall

Rather than an established typology, three categories were developed inductively from the pattern of findings as an adopted version of existing literature on policy comparisons [48–50]: 'diverge', 'extend', 'shortfall'. Existing research on policy convergence mainly compares jurisdictions of equal standing and is not always used consistently [50]. Studies of energy transitions show that subnational governments can both lead and depart from national strategies at the same time, i.e., Germany's energy transition policy [49]. The typology classifies the direction of deviation from one to another. The categories were applied by theme rather than by the whole document, since a single document can relate to the baseline in more than one way. They describe relationships between policy levels in terms of CE and do not, in themselves, imply a judgement of each document's quality. Table 3 explains each typology with reference examples.

Table 3. Typologies: 'Diverge', 'Extend' and 'Shortfall'.

Typology	Meaning	Example
Diverge	SA and the Federal solve the same problem in different ways, and neither way is simply "better". They are not on the same scale.	The federal makes engagement binding through a financial contract, while SA makes engagement binding through land-use law (the Code). Different tools, same general goal.
Extend	SA has gone further than the federal has, in a specific, demonstrable way.	SA's setback distance changed (from 1.2 km to 1.5 km) because of public feedback. The federal's main engagement document (the 2023-2024 Review) only recommends this kind of thing but does not enforce it in practice. So, on this specific point, SA has done something the federal has only suggested.
Shortfall	The federal has something SA does not have at all.	The federal has a dedicated complaints office for wind farm issues (the AEIC) since 2015. SA has no equivalent; if a wind farm complaint arises in SA, it should go to the general state Ombudsman, who is not a RE specialist.

Accordingly, Figure 1 presents the comparative timeline for all ten documents, annotated with the 'divergence', 'extension' and 'shortfall' relationships.

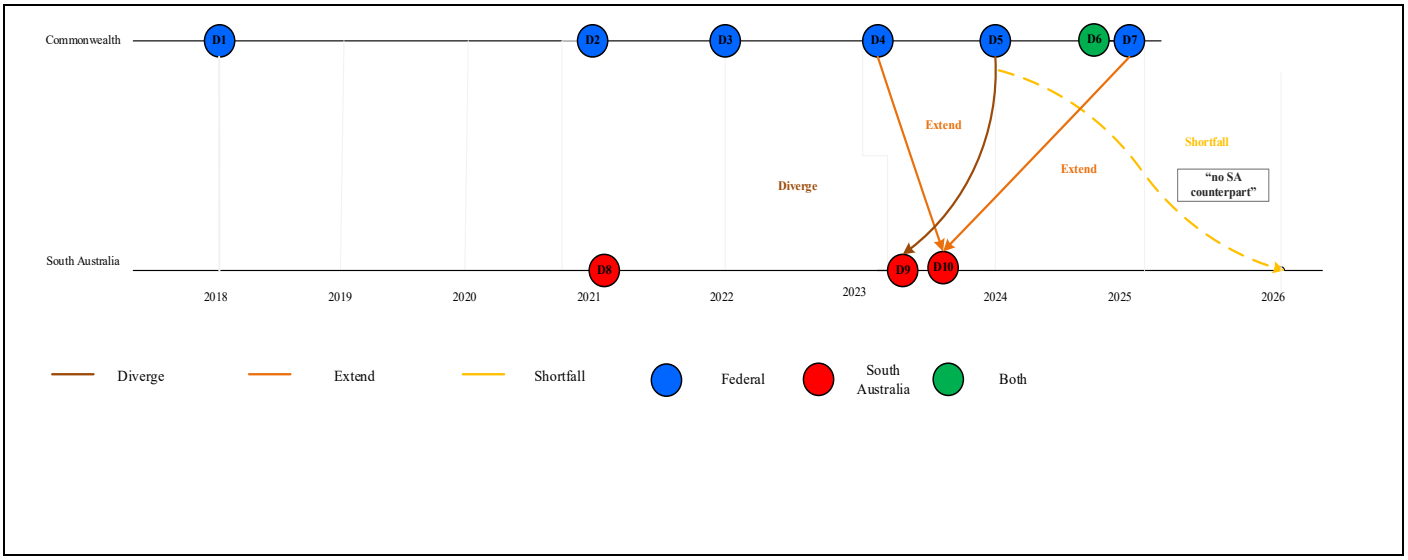


Figure 1. Comparative timeline.

Figure 1 shows two horizontal timelines running side by side, one for the federal and one for SA, with each dot representing one of the ten documents (labelled D1 to D10) placed according to its publication year. Three coloured arrows layered on top connect specific documents across the two tracks. RETA (D6) is shown as a shared document (in Green) because both governments agreed to it. The three arrows show the three typologies. The arrows show how SA policy relates to the federal baseline, using the 'diverge', 'extend' and 'shortfall' typology. The arrows represent thematic relationships, not cause and effect. An SA document can relate to a federal expectation that was set after it, because the comparison asks where SA policy now stands against the national baseline.

To improve clarity, this discussion is organised into two aspects.

(i) Three phases of policy development

Policies published at both the federal and SA levels focused on handling complaints and reforming planning from 2018 to 2020 (first phase). At the federal level, the Climate Change Authority's Review of the National Wind Farm Commissioner (D1) examined how the National Wind Farm Commissioner managed community complaints about wind farms. At this stage, engagement was treated mainly as a response to disputes. In SA, the Planning and Design Code (D9) began in 2020. It replaced council-level rules with a single statewide system. It also removed the third-party appeal rights that had applied to some wind farms under earlier SA rules.

The second phase, from 2021 to 2022, focused on building institutional frameworks. The Offshore Electricity Infrastructure Act (D2) created a new legal regime for offshore wind. The National Energy Transformation Partnership (D3) set up a framework for the national level and the states to work together on the energy transition. In SA, the updated Wind Farms Environmental Noise Guidelines (D8) were issued in 2021. Still, engagement is not a central concern, as all these documents established structures.

The period of 2023 to 2024 (third phase) shows a marked increase in including CE towards policy. Five documents appear within about eighteen months. The CIS (D4) made community and First Nations engagement part of project funding assessments. The Community Engagement Review (D5) documented deep distrust between communities and developers. The HRE Act (D10) created SA's licensing requirement for RE projects. The RETA (D6) linked federal funding to SA commitments. The First Nations Clean Energy Strategy (D7) set out a national vision for First Nations partnership. In this phase, engagement moved from the edges of policy to its centre.

(ii) Relationship between federal and SA policy

With reference to Figure 1, arrows show three types of relationships: 'diverge', 'extend' and 'shortfall'. The Planning and Design Code (D9) 'diverges' from the baseline. The Community Engagement Review (D5) calls for stronger and more trusted engagement. The Code (D9) moved in the opposite direction by narrowing the legal protection available to communities. The Code (D9) came before the Review (D5), so this is not a response to it. It shows that SA's main planning instrument now sits apart from national policy direction.

As SA's strongest engagement instrument to date, the HRE Act (D10) extends the federal baseline. The CIS (D4) and the First Nations Strategy (D7) set expectations for First Nations participation and CE. These rely on funding conditions and shared intent from the state government. The HRE Act turns similar expectations into licensing requirements, including consultation plans and native title agreements before a licence is granted.

SA policy falls short in addressing one of the main causes of community conflict identified by the federal government. The Community Engagement Review (D5) found that concerns about how benefits and impacts are shared contribute to community distrust. Host landowners receive lease payments, while their neighbours often live with the turbines' visual and noise impacts without any return. This gap matters because it sits exactly where conflict tends to arise. Neighbours are often the most likely group to oppose a wind farm. By leaving their situation unaddressed, SA policy leaves the most contested issue to voluntary developer practice. For this reason, the Shortfall arrow in Figure 1 points to an empty marker on the SA line rather than to an existing document.

Accordingly, as an extension to visualising policies through typologies, Section 5.2 shows how each policy specifies its level of engagement with reference to IAP2 levels.

The HRE Act (D10) extends the Commonwealth baseline. The CIS (D4) and the First Nations Strategy (D7) set expectations for First Nations participation and community engagement. These rely on funding conditions and shared intent. The HRE Act turns similar expectations into licensing requirements, including consultation plans and native title agreements before a licence is granted.

The Planning and Design Code (D9) diverges from the baseline. The Community Engagement Review (D5) calls for stronger and more trusted engagement. The Code moved in the opposite direction by narrowing the legal avenues available to communities. The Code came before the review, so this is not a response to it. It shows that SA's main planning instrument now sits apart from the direction of national policy.

SA shows a shortfall in areas the federal government has raised. The Community Engagement Review (D5) highlights concern about how benefits and impacts are shared. The Capacity Investment Scheme (D4) requires bidders to make commitments on stakeholder and local CE and shared community benefits (refer to the Merit Criterion 4 in D4). Successful bidders are bound to these commitments through contractual monitoring and enforcement. In existing policy and literature, non-host neighbours are defined as landholders near to RE infrastructure (i.e., wind turbines). Accordingly, a provision was counted only if it was a rule, duty or if there was any funded process for non-host neighbours. In contrast, no SA document addresses benefit sharing with non-host neighbours. However, three documents address neighbours' interests in part (without legal and contractual enforceability). First, the Planning and Design Code (D9) requires notification of owners of adjacent land and sets minimum distances between turbines and dwellings that do not host turbines. Second, the Wind Farms Environmental Noise Guidelines (D8) set limits on wind-farm noise, measured at nearby residences. These mechanisms inform or protect neighbours, but they do not share benefits. Third, the Hydrogen and Renewable Energy Act 2023 (D10) requires notice and information for owners and occupiers of land within a licence area, which concerns hosts and not

neighbours. The Shortfall arrow therefore points to an empty marker on the SA line, rather than to an existing document. This reflects that a shortfall is an absence of policy, not a feature of a particular document. The RETA (D6) is shown as a shared document because both governments agreed to it. The arrows show how SA policy relates to the Commonwealth baseline, using the Diverge, Extend and Shortfall typology. The arrows represent thematic relationships, not cause and effect. An SA document can relate to a Commonwealth expectation that was set after it, because the comparison asks where SA policy now stands against the national baseline.

5.2. Level of Engagement with Reference to IAP2 Public Participation Spectrum

This section directly discusses the findings to fulfil the second objective of the study. It examines the level of CE in each reviewed document. Section 5.2 maps the IAP2 Spectrum to assess the level of engagement each document provides. Each document is placed at the level its mechanisms actually deliver, with the level its stated aims reach shown alongside for comparison.

Level of Engagement

Accordingly, Figure 2 maps the ten reviewed documents onto the IAP2 Spectrum. Federal and shared documents appear above the Spectrum, and SA documents appear below it.

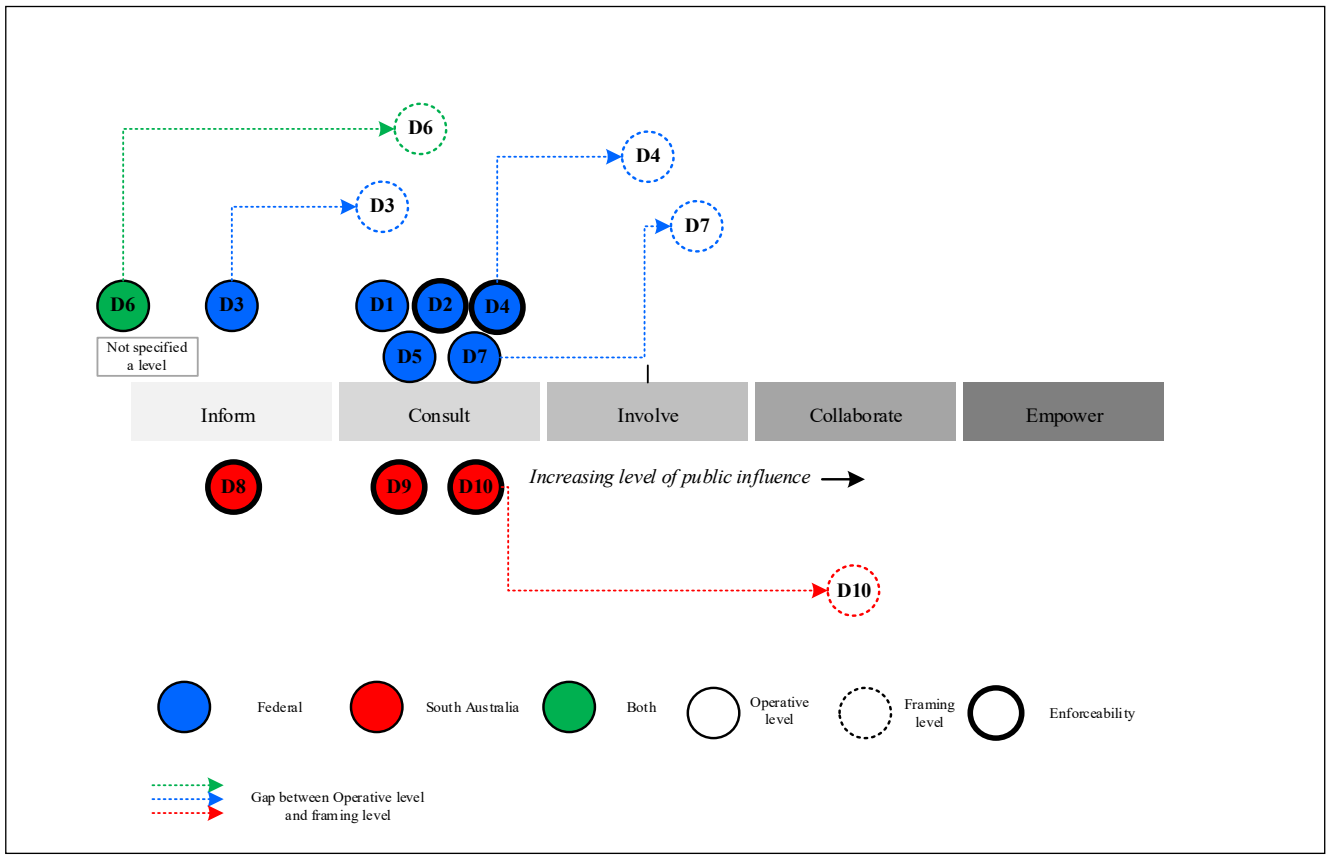


Figure 2. D1-D10 plotted with IAP2 Public Participation.

Note:

1. Operative levels: Solid hollow circles. The level of engagement that a document's actual rules or mechanisms deliver.

2. Framing levels: Dashed hollow circles. The level of engagement suggested by a document's language, such as its aims, principles, or vision statements.
3. Enforceability: Shown by a thick black border.
4. D6 appears only once, in Green, labelled as a "Not specified" box with an arrow to its Consult framing.

In the figure, the grey bar runs from Inform on the left to Empower on the right. The shading darkens as public influence increases. The Involve, Collaborate, and Empower bands contain no solid circles. Three of the five IAP2 levels are therefore absent from the actual mechanisms of Australian and SA RE policy. The solid circles show what each document delivers. They fall into two small clusters. The first cluster sits at Inform. It contains the National Energy Transformation Partnership (D3) and the EPA SA Noise Guidelines (D8). Both treat communities mainly as recipients of information. D3 sets out how governments will coordinate the energy transition, but it offers communities no formal way to respond. D8 protects residents from noise, but it treats them as noise receivers rather than participants. Neither document gives communities any say in decisions.

The second, larger cluster sits at Consult. It contains seven documents: D1, D2, D4, D5, D7, D9 and D10. These documents give communities ways to comment, such as submissions, representations, or consultation during tenders. The size of this cluster shows that Consult has become the standard level of engagement across both levels of government. Documents as different as a funding scheme (D4), a national strategy (D7) and a planning code (D9) all reach the same point.

Five documents have a thick black border, showing that they are legally binding (the policy has the legal power to make people do what it says. If someone does not follow it, there is a consequence): D2, D4, D8, D9 and D10. Every one of them sits at Inform or Consult. This is one of the mapping's most important findings. Binding force and deep engagement never appear together. The Planning and Design Code (D9) is a clear example. It is statutory, so it must follow its notification rules. Its mechanisms still lag at the Consult level, since communities can comment but cannot shape the outcome. The documents without borders indicate the other half of the situation. The First Nations Clean Energy Strategy (D7) has the most ambitious aims in the set, yet it has no border. Its ambition carries no legal force.

Five dashed circles show where a document's stated aims outstrip its mechanisms. Three sit at Collaborate: the CIS (D4), the First Nations Strategy (D7), and the HRE Act (D10). Two sit at Consult: D3 and the RETA (D6). No dashed circle sits at Empower. This highlights that no document proposes handing final decisions to communities. In summary, framing level is the level (depth) of engagement that a document's language suggests. It appears in goals, vision statements, and principles. The operative level is the depth the document's confirmed mechanism guarantees. A confirmed mechanism is something in the text that someone can be held to, i.e., a notification period, a standing committee, a consent right, a right of appeal or a contract term.

Following the coding structure, authors read the document's language and noted the framing level. Second, the confirmed level was explored. Third, the IAP2 levels were identified. As described further, the two levels using policy content, the First Nations Clean Energy Strategy (D7) shows the difference. It speaks of 'equitable partnerships' and of empowering First Nations communities. This framing sounds like Collaborate or Empower. The Strategy itself creates no binding duty, so its operative level cannot be confirmed above Consult. The binding element sits in a different document. The Capacity Investment Scheme (D4) sets aside capacity for projects that commit to at least 5% First Nations equity or revenue sharing. This applies only to projects the Scheme supports. The strong commitment therefore exists, but only for a subset of projects.

Separating the two levels shows a gap that a single score would hide. When framing sits above the operative level, readers may expect more than the document delivers. This can be identified as the "expectation-delivery gap".

The dashed arrows are the figure's most revealing feature. Each one indicates the distance between what a document aims for and what it delivers. The longest arrows belong to D4, D7 and D10. Each stretches two levels, from Consult to Collaborate. The CIS (D4) presents strong community and First Nations partnership, but its mechanism is assessing engagement plans during tendering. The First Nations Strategy (D7) speaks of shared decision-making and self-determination, but it creates no mechanism to deliver either. The HRE Act (D10) states that Aboriginal participation in decision-making is central, but for most community members it delivers consultation. The shorter dashed arrow belongs to D3, which stretches one level from Inform to Consult. The RETA (D6) has an arrow from outside the Spectrum to Consult. This shows a document that states an aim to improve engagement without setting up any mechanism to achieve it. The arrow directions are also significant. Every arrow points to the right. No document delivers more than it promises. The gap between aims and practice runs in only one direction. The longest arrows also belong to the most recent documents. D4, D7 and D10 were all issued in 2023 and 2024. This suggests the gap is growing. Engagement has become central to national policy, but there is still space to develop it systematically. Finally, the RETA (D6) sits outside the Spectrum. This is because a key agreement linking federal funding to SA commitments includes CE as a shared aim yet provides no means to deliver it. From the researchers' point of view, this shows that some policy documents do not reach even the lowest level of the Spectrum in practice.

The figure has some limits that would affect the generalising of the findings. The figure (time bar) does not show the quality of engagement within a level. Two documents at Consult may differ widely. Some require decision-makers to report back on how input shaped the outcome. Others, such as the Code, only allow comment. Also, this does not show timing. Most mechanisms apply at the approval stage, once a project is largely designed. The level of engagement shows what each policy offers communities, but not whether those offers must be kept. Thus, promise of partnership carries little weight if no one must deliver it.

5.3. Implications from the Study

This study's implications span two aspects: theoretical and practical. Theoretically, the implications are based on applying the IAP2 Spectrum, which formed part of the study's second objective. Practically, the implications draw from the analysis of Federal and SA policy documents that currently guide CE practice in RE projects. First, this study has a theoretical implication for policy analysis. Comparing two governments' policies by asking which is better or worse can be misleading. Different levels of government often use different tools because power is divided among them. The 'diverge', 'extend' and 'shortfall' typology offers an alternative which is derived from existing literature but is a novel categorisation. It describes how policies relate to one another, rather than ranking them. The typologies used in this study ('diverge'/'extend'/'shortfall') could help other researchers compare any two governments with different powers. This study's central analytical move, treating IAP2 depth and legal enforceability of engagement (refer to Figure 2 'operative' and 'framing' levels) as independent rather than correlated dimensions, extends how the IAP2 Spectrum is typically applied in policy research. Thus, future research should be inspired by analytically evaluating the level of engagement not only within the Spectrum, but first by analysing the engagement provision and how it is positioned within the Spectrum. Moreover, most existing research into why community opposition arises for wind farms focuses on what happens during the actual project, how

it was managed, and how people were treated. This study suggests some of that frustration may start earlier, included in the policy documents themselves, before a project or a community meeting even exists. Policy convergence studies examine whether jurisdictions become more alike over time, and what causes this [48]. Knill [51] describes convergence as a rise in the similarity of policy characteristics, such as objectives, instruments or settings, across jurisdictions [48]. This work is mostly cross-national and tracks change over time. In contrast, this study compares two levels of the system at one point in time. The federal government and the SA hold different levers. The federal government works through funding. The state works through planning law. A similarity measure can show that their instruments differ. The typology adds three things. First, Diverge means a different tool for a similar aim. The Capacity Investment Scheme (D4) and the Planning and Design Code (D9) are examples. Extend and Shortfall mean more or less of a comparable feature. The setback revision after consultation (D9) is an Extend case. The lack of a state body like the federal Commissioner (D1, D5) is a Shortfall case. Second, it treats a missing feature as a result, not a policy gap. Third, it points to different policy responses. A Diverge case suggests the same tool may not exist at the other level, so lessons may not transfer directly. Extend and Shortfall mark where lessons may shift between levels. The typology does not replace convergence analysis. It does not explain causes or track change over time. In convergence research, divergence usually means jurisdictions becoming less alike. Here, Diverge means a difference in kind at one point in time. Extend and Shortfall are measured against the federal level. This is an analytical choice. It does not make federal policy the standard."

In practical terms, this study's findings suggest that every CE guide (policy documents, acts, etc.) should state explicitly, in plain terms, the specific level of involvement it guarantees, separate from any broader aspirational language elsewhere (which motivates illustrating 'operative' and 'framing' levels in Figure 2). Unlike the structural reforms, this measure requires no new legislation and could be implemented administratively as an immediate first step, narrowing the expectation-delivery gap identified in Section 5.2. For key stakeholders, the federal government can use its funding provisions where it lacks direct planning power. First Nations interests rest on rights and connection to Country. Neighbour interests rest on living near turbines without hosting them. The two groups can overlap, because a First Nations community can also be a non-host neighbour. Under the Capacity Investment Scheme, First Nations benefits have a dedicated and binding route. Non-host neighbours have no matching route. Policymakers should add clear neighbour provisions, such as a defined benefit or a minimum share. First Nations provisions should not be weakened to close this gap. Developers should be open with both groups about what each can expect. Companion case studies can test whether communities see the difference as unfair. The CIS could assess the quality of engagement, not only engagement plans, and could publish and monitor developers' social licence commitments. Future RETAs could include specific engagement milestones and reporting duties rather than broad shared aims. Subsequently, SA could close the benefit-sharing gap by setting clear expectations for non-host neighbours, who currently rely on voluntary developer practice. It could also strengthen the planning pathway, which governs most wind farms on freehold land. For policymakers at both levels: policymakers could turn stated aims into specific duties, setting out who must be engaged, when, and at what level. Assessing new policies by both IAP2 level and enforceability would show where engagement is promised but not required, before policies are finalised. As the main stakeholder practising engagement on site, developers can clearly see which level of engagement they should use with communities while understanding the legal enforceability. Matching the level of engagement to the project stage and to each community group can avoid both under-engagement and consultation fatigue. Early

involvement of non-host neighbours is especially important, since they hold the fewest protections under current policy

6. Conclusions and Recommendations

Australia's RET has been accompanied by persistent community concern around wind farm development, particularly regarding how affected communities are engaged in siting and approval decisions. While the federal and SA governments have each developed policy responses to this concern over the past decade, these responses have evolved largely independently, and no systematic comparison of their CE provisions has previously been undertaken. Accordingly, this study examined how federal and SA policy addresses CE in wind farm development. This was achieved through two objectives, applied to ten policy documents published between 2015 and 2026. The first objective traced the evolution of CE policy and compared SA policy with the federal baseline. Federal policy has moved from treating CE as a matter of handling complaints to treating it as a condition of funding and a basis for partnership. SA has not followed a single path. The HRE Act 2023 extends federal expectations by making engagement a licensing requirement. The Planning and Design Code diverges from them by narrowing community appeal rights. SA also falls short on benefit sharing with non-host neighbours, a key source of conflict identified at the federal level. SA is not simply ahead of or behind federal policy. Its position depends on the type of land. Most wind farms are built on private farmland, where the weakest engagement rules apply; developers negotiate directly with landowners, and projects are assessed through the planning system. Native title is also usually extinguished on private land. As a result, most wind farm communities are covered only by the planning system's notification and comment requirements, which highlights the weakest engagement rules in the SA set.

The second objective assessed the level of CE. No document provides engagement beyond the Consult level of the IAP2 Spectrum. Several recent policies state aims of collaboration that their mechanisms do not deliver, and this gap is widest in the newest policies. Enforceability does not close the gap. No document is both legally binding and offers engagement beyond Consult. Where CE is enforceable, it secures process rather than outcomes, relies on governments rather than communities to enforce it, and protects those with formal legal ties to a project. Non-host neighbours hold the weakest protections of all. Taken together, these findings suggest that CE in Australian RE policy often aims for partnership but is mostly delivered through consultation.

The study makes two contributions. First, the 'diverge', 'extend' and 'shortfall' typology offers an alternative to ranking policies as better or worse. It describes how state policy relates to a national baseline. Second, assessing engagement depth shows where CE is promised, where it is required, and where the two meet. Policymakers can use this approach to test new policies before finalising them. The study has limitations. It examines what policy documents require, not how engagement happens in practice. Assigning IAP2 levels and typology categories also involves judgement, and the findings centre on SA. The South Australian findings cover four documents, and the Planning and Design Code (D9) carries most of the weight. Each Australian state has its own planning laws, so South Australian results may not be valid elsewhere. For instance, the 1.5 km setback and the absence of a state engagement body are SA features. The federal findings apply nationally. The state-level findings are a test of the framework and method, not a description of every state. Future research could test these findings against practice through case studies of SA wind farm projects and could extend the comparison to other states. Australia's energy transition depends on community support. Policy has recognised this in its aims. The next step is to back these aims with clear, enforceable duties, so communities have real influence over the projects in their area. This review

shows a gap between the engagement depth that policy documents promise and the depth they guarantee. Two of the ten documents (D7 and D10) use language that sits above their confirmed mechanisms. No document combines high depth with strong enforceability, and none confirms the Involve level. The absence of explicit policy requirements and enforceable mechanisms may contribute to inconsistencies in CE practice. Voluntary project-level initiatives may partly reduce these limitations. This review analyses policy documents only, so it cannot show how communities experience the gap. Future research could investigate the extent to which the gap is addressed in practice. A case study-based study to identify the actual policy–practice gap could address the practicability of existing policy.

Furthermore, future enforcement evaluations need measurable indicators to assess the level of engagement. Accordingly, three measurable questions are suggested to assess the policy–practice gap in future policy enforcements. First, (i) does the policy state what level of involvement it guarantees? Second, (ii) did public feedback change a decision or a rule? And third, (iii) are complaints recorded and resolved? Asking these questions regularly would show whether the gap is closing. Accordingly, related to each question, measurable indicators can be developed with relevant policy connected to case study validations (practice).

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Appendix A: Analytical Framework for Coding and Comparing the Policy Documents

Appendix A.1. Step 1. Code Each Document

Each document was coded on two dimensions (indicated in Figure 2).

Operative levels: The level of engagement that a document's actual rules or mechanisms deliver.

Framing levels: The level of engagement suggested by a document's language, such as its aims, principles, or vision statements.

Table A1. Coding rule for "framing" and "operating" level.

Dimension	Categories	Coding Rule
Framing level	Inform, Consult, Involve, Collaborate or Empower	The level that the language suggests. Based on aims, principles and wording.
Operative level	Inform, Consult, Involve, Collaborate or Empower	The level that a confirmed mechanism guarantees. Based only on rules, duties, terms or funded processes.

Appendix A.2. Step 2. Apply the IAP2 Coding Rules

The IAP2 Public Participation Spectrum has five levels. It was coded as the highest level of the IAP2 Spectrum.

Table A2. IAP2 coding rules

IAP2 Level	It Was Coded at This Level When the Document	Examples of Qualifying Text
Inform	Requires notices, published reports or fact sheets	A duty to publish project information
Consult	Gives a route for public views and requires the decision-maker to consider or acknowledge them	A public submission period with a duty to respond
Involve	Sets up a standing structure that works with the public during the decision	A committee or panel with input into siting or layout
Collaborate	Gives the public a role in shaping options, or a share in outcomes, through a binding mechanism	A binding benefit-sharing agreement; a joint design group with binding input
Empower	Gives the public the final decision	A consent or veto right; community-controlled ownership

Appendix A.3. Step 3. Define the Functions to Compare

The two levels of government are compared by function. A function is a task that policy performs for community engagement. The list was built in two stages.

1. The functions found in the federal documents were first stated. The federal level is the analytical baseline. It is not a standard of good practice.
2. Accordingly, any additional functions were added that appear only in the South Australian documents.

Table A3. Function-wise comparison.

Function	Federal Provision (Document, Page, Quote)	South Australian Provision (Document, Page, Quote)	Federal IAP2 Level	SA IAP2 Level	Pattern	Rationale (Which Rule Applied)
xx	xx	xx	xx	xx	xx	xx

Appendix A.4. Step 4. Assign a Pattern

For each function, the South Australian provision was compared with the federal one. A qualifying provision is a rule, duty, funded process or contract term. Aims and guidance alone do not qualify.

Table A4. Pattern identification.

Pattern	Definition	Notes
Diverge	Both levels serve the function, but through different types of mechanisms.	The mechanisms differ in type, for example, a planning rule and a funding condition.
Extend	South Australia has more than the federal level.	The state has a provision with no federal counterpart, or the same type of mechanism at a higher IAP2 level or with stronger enforceability.

Shortfall	South Australia has less than the federal level.	A federal provision has no state counterpart, or the same type of mechanism sits at a lower level or is weaker.

Appendix A.5. Step 5. Link the Patterns to the IAP2 Spectrum

The IAP2 spectrum is the measuring stick. Each pattern is the result of comparing the IAP2 level of the federal rule with the IAP2 level of the state rule.

1. Find the IAP2 level of the federal rule. Find the IAP2 level of the state rule.
2. If the state level is higher, the pattern is Extend.
3. If the state level is lower, the pattern is Shortfall.
4. If the two levels use different kinds of rules, the pattern is Diverge.

The following table illustrates an example of "how the patterns follow from the IAP2 levels"

Table A5. "How the patterns follow from the IAP2 levels".

Federal Level ↓ State Level →	**None**	**Inform**	**Consult**	**Involve**	**Collaborate**	**Empower**
None		Extend	Extend	Extend	Extend	Extend
Inform	Shortfall	x	Extend	Extend	Extend	Extend
Consult	Shortfall	Shortfall	x	Extend	Extend	Extend
Involve	Shortfall	Shortfall	Shortfall	x	Extend	Extend
Collaborate	Shortfall	Shortfall	Shortfall	Shortfall	x	Extend
Empower	Shortfall	Shortfall	Shortfall	Shortfall	Shortfall	x

References

1. Atchike, D.W.; Zhenyu, Z.; Ali, T.; Weishang, G.; Jabeen, G. Towards Sustainable Energy: Factors Affecting Solar Power System Adoption by Small and Medium-Sized Businesses. *Front. Environ. Sci.* **2022**, *10*. https://doi.org/10.3389/fenvs.2022.967284.
2. Lothian, A. Attitudes Towards the Visual Impact and Community Acceptability of Wind Farms in Australia and Britain: Findings from Three Surveys. *Sustainability* **2025**, 1–23. https://doi.org/10.3390/su17198817.
3. Griffiths, L.L.; Goodman, C.; Voyer, M.; Stockbridge, J.; Lewis, A.; Croft, F.; Lj, C. Policy Implications for Offshore Renewable Energy in Australia: An MSP Approach Supporting the Energy Transition. *Energy Policy* **2025**, *202*, 114621. https://doi.org/10.1016/j.enpol.2025.114621.
4. Hübner, G.; Leschinger, V.; Müller, F.J.Y.; Pohl, J. Broadening the Social Acceptance of Wind Energy-An Integrated Acceptance Model. *Energy Policy* **2023**, *173*. https://doi.org/10.1016/j.enpol.2022.113360.
5. Sokoloski, R.; Markowitz, E.M.; Bidwell, D. Public Estimates of Support for Offshore Wind Energy: False Consensus, Pluralistic Ignorance, and Partisan Effects. *Energy Policy* **2018**, *112*, 45–55. https://doi.org/10.1016/j.enpol.2017.10.005.
6. Caporale, D.; De Lucia, C. Social Acceptance of On-Shore Wind Energy in Apulia Region (Southern Italy). *Renew. Sustain. ENERGY Rev.* **2015**, *52*, 1378–1390. https://doi.org/10.1016/j.rser.2015.07.183.
7. Fast, S. Social Acceptance of Renewable Energy: Trends, Concepts, and Geographies. *Geogr. Compass* **2013**, *7*, 853–866. https://doi.org/10.1111/gec3.12086.
8. Pacheco, A.; Monteiro, J.; Santos, J.; Sequeira, C.; Nunes, J. Energy Transition Process and Community Engagement on Geographic Islands: The Case of Culatra Island (Ria Formosa, Portugal). *Renew. Energy* **2022**, *184*, 700–711, doi.org/10.1016/j.renene.2021.11.115.
9. Hindmarsh, R.; Hindmarsh, R. East Asian Science, Technology and Society: An Wind Farms and Community Engagement in Australia: A Critical Analysis for Policy Learning. *East Asian Sci. Technol. Soc. Int. J.* **2020**, *2160*. https://doi.org/10.1215/s12280-010-9155-9.
10. Chodkowska-Miszczuk, J.; Kola-Bezka, M.; Lewandowska, A.; Martinát, S. Local Communities' Energy Literacy as a Way to Rural Resilience—an Insight from Inner Peripheries. *Energies* **2021**, *14*. https://doi.org/10.3390/en14092575.

11. Gross, C. Community Perspectives of Wind Energy in Australia: The Application of a Justice and Community Fairness Framework to Increase Social Acceptance. *Energy Policy* **2007**, *35*, 2727–2736. https://doi.org/10.1016/j.enpol.2006.12.013.
12. Klocker, N.; Carr, C.; Fulton, E.; Larkin, N. Energy Research & Social Science "Might Give Some Hope for the Future": Understanding Young Adults' Support for Offshore Wind in Coastal Australia. *Energy Res. Soc. Sci.* **2026**, *134*, 104610. https://doi.org/10.1016/j.erss.2026.104610.
13. Olabi, A.G.; Obaideen, K.; Abdelkareem, M.A.; Almallahi, M.N.; Shehata, N.; Alami, A.H.; Mdallal, A.; Ali, A.; Hassan, M.; Sayed, E.T. Wind Energy Contribution to the Sustainable Development Goals: Case Study on London Array. *Sustainability* **2023**. https://doi.org/10.3390/su15054641
14. Peraki, L.; Kontouli, N.; Gkika, A.; Petrakli, F.; Koumoulos, E.P. Expanding Social Impact Assessment Methodologies Within SDGs: A Case Study on Novel Wind and Tidal Turbine Blades Development. *Sustainability* **2025**. https://doi.org/10.3390/su17041492.
15. Zander, K.K.; Mathur, D.; Mathew, S.; Garnett, S.T. Public Views about the World' s Largest Proposed Solar Farm in Remote Australia. *Energy Policy* **2024**, *191*, 114197. https://doi.org/10.1016/j.enpol.2024.114197.
16. Funder, M.; Wlokas, H.; Jhetam, T.; Olsen, K.H. Corporate Community Engagement Professionals in the Renewable Energy Industry: Dilemmas and Agency at the Frontline of South Africa's Energy Transition. *Energy Res. Soc. Sci.* **2021**, *81*. https://doi.org/10.1016/j.erss.2021.102249.
17. Reitz, S.; Goshen, L.; Ohlhorst, D. Trade-Offs in German Wind Energy Expansion: Building Bridges between Different Interests, Values and Priorities. *Energy Sustain. Soc.* **2022**, *12*. https://doi.org/10.1186/s13705-022-00365-1.
18. Müller, K.; Morton, T. The Space, the Time, and the Money. Wind Energy Politics in East Germany. *Environ. Innov. Soc. Transit.* **2021**, *40*, 62–72. https://doi.org/10.1016/j.eist.2021.06.001.
19. Lim, X.L.; Lam, W.H. Public Acceptance of Marine Renewable Energy in Malaysia. *Energy Policy* **2014**, *65*, 16–26. https://doi.org/10.1016/j.enpol.2013.09.053.
20. Howard, T.M. Balancing the See-Saw of Natural Resource Governance: The Interaction of Legislation, Policy and Practice in Four Australian Participatory Processes Participatory Processes. *Australas. J. Environ. Manag.* **2018**, *6563*. https://doi.org/10.1080/14486563.2017.1420500.
21. Howard, T. Olivebranches and Idiot' s Guides: Frameworks for Community Engagement in Australian Wind Farm Development. *Energy Policy* **2015**, *78*, 137–147. https://doi.org/10.1016/j.enpol.2014.12.026.
22. Roden, J. Exploring the Perceived Health, Community, and Employment Impacts of an Announced Closure of a Coal-Fired Power Station in Upper Hunter Valley, Australia. *J. Environ. Health* **2021**, *83*, 25–36, Available online: https://www.proquest.com/docview/2491977967 (accessed on 12 October 2026)
23. Department for Energy and Mining. *South Australia' s Green Paper on the Energy Transition*; Government of South Australia: Adelaide, Australia, 2023. Available online: https://www.energymining.sa.gov.au/public-consultations/consultation/south-australias-green-paper-on-the-energy-transition (accessed on 9 October 2026)
24. Cass, N.; Walker, G.; Devine-Wright, P. Good Neighbours, Public Relations and Bribes: The Politics and Perceptions of Community Benefit Provision in Renewable Energy Development in the UK. *J. Environ. Policy Plan.* **2010**, *12*, 255–275. https://doi.org/10.1080/1523908x.2010.509558.
25. Bobbio, L. Designing Effective Public Participation. *Policy Soc.* **2018**, *38*, 41–57. https://doi.org/10.1080/14494035.2018.1511193.
26. Rand, J.; Hoen, B. Thirty Years of North American Wind Energy Acceptance Research: What Have We Learned? *Energy Res. Soc. Sci.* **2017**, *29*, 135–148. https://doi.org/10.1016/j.erss.2017.05.019.
27. Bell, D.; Gray, T.; Haggett, C.; Swaffield, J. Re-Visiting the 'Social Gap': Public Opinion and Relations of Power in the Local Politics of Wind Energy. *Environ. Polit.* **2013**, *22*, 115–135. https://doi.org/10.1080/09644016.2013.755793.
28. Hall, N.; Ashworth, P.; Devine-Wright, P. Societal Acceptance of Wind Farms: Analysis of Four Common Themes across Australian Case Studies. *Energy Policy* **2013**, *58*, 200–208. https://doi.org/10.1016/j.enpol.2013.03.009.
29. Rosa, F.; Taghikhah, M.; Paul, J.; Voinov, A. Navigating the Community Renewable Energy Landscape: An Analytics-Driven Policy Formulation. *Appl. Energy* **2024**, *362*, 123007. https://doi.org/10.1016/j.apenergy.2024.123007.
30. Wüstenhagen, R.; Wolsink, M.; Bürer, M.J. Social Acceptance of Renewable Energy Innovation: An Introduction to the Concept. *Energy Policy* **2007**, 35, 2683–2691. https://doi.org/10.1016/j.enpol.2006.12.001
31. Moffat, K.; Zhang, A. The Paths to Social Licence to Operate: An Integrative Model Explaining Community Acceptance of Mining. *Resour. Policy* **2014**, *39*, 61–70. https://doi.org/10.1016/j.resourpol.2013.11.003.

32. Climate Change Authority. Review of the National Wind Farm Commissioner: Final Report; Commonwealth of Australia: Canberra, Australia, 2018. Available online: https://www.climatechangeauthority.gov.au/publications/2018-review-national-wind-farm-commissioner (accessed on 9 October 2026).
33. Commonwealth of Australia. *Offshore Electricity Infrastructure Act 2021 (Cth)*, No. 120, 2021; Federal Register of Legislation: Canberra, Australia, 2021. Available online: https://www.legislation.gov.au/C2021A00120 (accessed on 10 October 2026).
34. Energy and Climate Change Ministerial Council. *National Energy Transformation Partnership*; Department of Climate Change, Energy, the Environment and Water: Canberra, Australia, 2022. Available online: https://www.energy.gov.au/energy-and-climate-change-ministerial-council (accessed on 9 October 2026).
35. Dyer, A. *Community Engagement Review: Report to the Minister for Climate Change and Energy*; Department of Climate Change, Energy, the Environment and Water: Canberra, Australia, 2024. Available online: https://www.dcceew.gov.au/energy/renewable/community-engagement-review (accessed on 5 October 2026).
36. Australian Government. *First Nations Clean Energy Strategy 2024–2030*; Department of Climate Change, Energy, the Environment and Water: Canberra, Australia, 2024. Available online: https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/first-nations-engagement-working-group/first-nations-clean-energy-strategy-1 (accessed on 4 November
37. Parliament of South Australia. *Hydrogen and Renewable Energy Act 2023 (SA)*, No. 37 of 2023; Government of South Australia: Adelaide, Australia, 2023. Available online: https://www.legislation.sa.gov.au/__legislation/lz/v/a/2023/hydrogen%20and%20renewable%20energy%20act%202023_37/2023.37.un.pdf (accessed on 9 October 2026).
38. Environment Protection Authority South Australia (EPA SA). *Wind Farms Environmental Noise Guidelines*; EPA SA: Adelaide, Australia, 2021. Available online: https://www.epa.sa.gov.au/files/47788_windfarms.pdf (accessed on 9 October 2026).
39. State Planning Commission. *Planning and Design Code—Rural Provisions*; Government of South Australia: Adelaide, Australia, **2020**. Available online: https://code.plan.sa.gov.au (accessed on 4 November 2026).
40. Planning and Land Use Services (PLUS). *Renewable Energy Facilities: Development Assessment Process*; Fact Sheet; Department for Trade and Investment: Adelaide, Australia, 2023. Available online: https://plan.sa.gov.au/__data/assets/pdf_file/0009?1242558/Fact-Sheet-Renewable-energy-facilities-development-assessment-process.pdf (accessed on 9 October 2026).
41. Cowell, R.; Bristow, G.; Munday, M. Acceptance, Acceptability and Environmental Justice: The Role of Community Benefits in Wind Energy Development. *J. Environ. Plan. Manag.* **2011**, *54*, 539–557. https://doi.org/10.1080/09640568.2010.521047.
42. Walker, G.; Devine-Wright, P. Community Renewable Energy: What Should It Mean? *Energy Policy* **2008**, *36*, 497–500. https://doi.org/10.1016/j.enpol.2007.10.019.
43. International Association for Public Participation (IAP2). IAP2 Spectrum of Public Participation; IAP2 International Federation, 2018. Available online: https://iap2.org.au/resources/spectrum (accessed on 19 September 2026).
44. Arnstein, S.R. A Ladder of Citizen Participation. *J. Am. Inst. Plann.* **1969**, *35*, 216–224. https://doi.org/10.1080/01944366908977225.
45. O'Connor, C.; Joffe, H. Intercoder Reliability in Qualitative Research: Debates and Practical Guidelines. *Int. J. Qual. Methods* **2020**, *19*, doi.org:10.1177/1609406919899220.
46. Ernst, A. Research Techniques and Methodologies to Assess Social Learning in Participatory Environmental Governance. *Learn. Cult. Soc. Interact.* **2019**, *23*, 100331. doi.org:10.1016/j.lcsi.2019.100331.
47. Nowell, L.S.; Norris, J.M.; White, D.E.; Moules, N.J. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *Int. J. Qual. Methods* **2017**, *16*, 1–13. https://doi.org/10.1177/1609406917733847.
48. Heichel, S.; Pape, J.; Sommerer, T. Is There Convergence in Convergence Research? An Overview of Empirical Studies on Policy Convergence. *J. Eur. Public Policy* **2005**, *12*, 817–840. https://doi.org/10.1080/13501760500161431.
49. Ohlhorst, D. Germany' s Energy Transition Policy between National Targets and Decentralized Responsibilities. *J. Integr. Environ. Sci.* **2016**, *8168*, 1–20. https://doi.org/10.1080/1943815X.2015.1125373.

50. Hooghe, L.; Marks, G. Unraveling the Central State, but How? Types of Multi-Level Governance. *Am. Polit. Sci. Rev.* **2003**, *97*, 233–243. doi.org:10.1017/S0003055403000649.
51. Knill, C. Introduction: Cross-National Policy Convergence: Concepts, Approaches and Explanatory Factors. *J. Eur. Public Policy* **2005**, *12*, 764–774. https://doi.org/10.1080/13501760500161332.

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