

Cover Letter

Subject

Submission to Inquiry into Social Licence and Economic Development Outcomes in Critical Minerals Projects

Committee Secretary

House of Representatives Standing Committee on Primary Industries
Parliament House
Canberra ACT 2600

Dear Committee Secretary,

Please find attached my written submission to the House Standing Committee on Primary Industries' inquiry into factors shaping social licence and economic development outcomes in critical minerals projects across Australia.

This submission is provided in a personal capacity as an independent, public-interest and industry-adjacent contribution. It focuses on practical factors influencing community trust, regulatory clarity, workforce development, and regional economic outcomes, with particular attention to the role of future-facing industries, including the emerging fusion energy industry, in strengthening long-term social licence and regional value creation.

The submission is intended to assist the Committee by identifying governance, coordination, and engagement practices that improve project outcomes while reducing conflict, delay, and uncertainty for communities, proponents, and governments alike.

I would be pleased to provide any further information or clarification should the Committee require it.

Thank you for the opportunity to contribute to this inquiry.

Yours Sincerely



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House of Representatives Standing Committee on Primary Industries

Submission to the Inquiry into Factors Shaping Social Licence and Economic Development Outcomes in Critical Minerals Projects Across Australia

About this submission

This submission addresses factors influencing social licence and economic development outcomes in Australia’s critical minerals sector, with a focus on practical governance, engagement, workforce, and coordination considerations.

It places particular emphasis on how future-facing industries, including the emerging fusion energy industry, strengthen long-term community consent, workforce development, and regional economic resilience when integrated clearly and transparently into critical minerals policy and project design.

The submission is provided to assist the Committee in identifying implementable reforms that improve certainty for communities, proponents, and governments while supporting durable regional development and national capability.

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Executive Summary

Australia’s critical minerals sector underpins not only current clean-energy technologies but also the emergence of next-generation energy systems, including the **fusion energy industry**, advanced manufacturing, defence technologies, and high-value industrial supply chains. As demand accelerates, the success of critical minerals projects increasingly depends on **social licence, regulatory clarity, and demonstrable regional economic benefit**.

This submission argues that **fusion energy development strengthens, rather than competes with, social licence outcomes in critical minerals projects**. Fusion energy systems rely on stable, ethically sourced critical minerals, advanced materials, precision manufacturing, and highly skilled regional workforces. Where critical minerals projects are visibly linked to **future-facing Australian industries**, community acceptance and long-term consent improve.

Social licence is not secured through consultation alone. It is built through **credibility, transparency, and future relevance**. Communities are more likely to support projects when they understand not only *what is being extracted*, but *why it matters* and *what enduring industries it enables*. Fusion energy offers a compelling long-term narrative, positioning critical minerals as inputs into sovereign energy capability, scientific leadership, and export-grade advanced technology.

However, this opportunity is often undermined by:

- regulatory ambiguity across jurisdictions,
- inconsistent public explanations of risk,
- limited articulation of downstream industrial pathways,
- and a focus on short-term extraction outcomes rather than long-term regional capability.

This submission finds that **regulatory uncertainty is one of the most significant contributors to social licence failure**, particularly where projects intersect with radiation, advanced materials, transport, or novel industrial processes associated with fusion-adjacent supply chains. When governments cannot clearly explain who regulates what, under which standards, and for what future purpose, community confidence erodes, regardless of technical merit.

Conversely, projects that integrate:

- early engagement with Traditional Owners and local communities,
- transparent, science-based risk definitions,
- workforce and skills pathways aligned to advanced industries,
- and visible links to future energy systems such as fusion,

demonstrate stronger social licence resilience and superior economic outcomes.

The submission further contends that **fusion energy strengthens the economic case for regional critical minerals development** by enabling downstream processing, advanced manufacturing, and long-term skills retention in regional and remote Australia. Rather than being perceived as extractive endpoints, critical minerals projects become foundations for enduring industrial ecosystems.

This inquiry provides the Committee with an opportunity to recommend reforms that simultaneously:

- strengthen social licence,
 - improve regulatory clarity,
 - enhance regional economic development,
 - and position Australia to participate competitively in the global fusion energy supply chain.
-

What changes from here (important)

- Fusion is treated as **future-enabling infrastructure**, not a side debate.
 - No comparison with nuclear fission unless unavoidable.
 - Fusion is framed as **demand certainty** for critical minerals, skills, and regional capability.
 - Social licence is explicitly improved by *future relevance*, not weakened by it.
-

1. Understanding Social Licence in Critical Minerals Projects

Social licence has emerged as a decisive factor shaping the success or failure of critical minerals projects across Australia. It is no longer sufficient for projects to meet statutory approval requirements alone. Projects must also maintain sustained community acceptance over long development horizons that often extend decades beyond initial approvals.

In the context of critical minerals, social licence is best understood as **ongoing consent grounded in trust**, rather than a one-time outcome of consultation. Trust is shaped not only by environmental performance, but by the clarity with which risks, benefits, and long-term purpose are communicated and governed.

This is increasingly relevant as critical minerals projects are no longer isolated extractive activities. They now sit within broader industrial systems supporting clean energy technologies, advanced manufacturing, defence capabilities, and the emerging **fusion energy industry**. Where communities can see how projects contribute to future-oriented industries with enduring national value, social licence outcomes improve.

Conversely, social licence tends to erode where projects are perceived as:

- short-term or purely extractive,
- poorly integrated into regional development strategies,
- or inadequately explained in terms of long-term national benefit.

A recurring issue identified across jurisdictions is that **social licence is often treated as a communications exercise**, rather than a core design and governance requirement. Engagement processes may be technically compliant yet fail to build confidence if communities do not understand how their concerns influence project decisions, regulatory conditions, or operational practices.

For critical minerals projects linked to advanced industrial pathways, including fusion energy supply chains, this challenge is amplified. Fusion-adjacent industries involve advanced materials, precision manufacturing, novel technologies, and long investment horizons. While these characteristics offer strong economic opportunity, they also demand **higher standards of explanation, regulatory clarity, and public transparency**.

This submission contends that social licence is strongest where:

- the role of a project within future energy and industrial systems is clearly articulated,
- regulatory responsibilities are unambiguous and publicly accessible,
- and communities can identify long-term regional benefits extending beyond the life of the mine.

Importantly, social licence is not diminished by technological ambition. On the contrary, when critical minerals projects are credibly linked to future industries such as fusion energy, they gain **purpose, relevance, and legitimacy** in the eyes of many regional communities. The challenge lies not in the technology itself, but in how it is governed, explained, and integrated into regional economic planning.

Failure to address social licence at this level results in delays, legal challenges, capital withdrawal, and reputational damage that affect not only individual projects but Australia’s standing as a reliable supplier of critical minerals into advanced global industries.

2. Engagement with Local Communities and Traditional Owners

Effective engagement with local communities and Traditional Owners is central to securing and maintaining social licence for critical minerals projects. Evidence across Australia shows that engagement outcomes are strongest where communities are treated as **partners in long-term regional development**, rather than stakeholders to be managed through procedural consultation.

The effectiveness of engagement practices is not uniform across Australia and varies significantly by state and territory, reflecting differences in land use, population density, Traditional Owner arrangements, infrastructure maturity, and the proximity of projects to established communities.

These regional differences materially shape how communities interpret risk, benefit, and long-term purpose, particularly where critical minerals projects are connected to future-facing industries such as fusion energy.

Too often, engagement frameworks focus on meeting minimum statutory requirements rather than building durable trust. This results in consultation processes that are technically compliant but substantively ineffective. Communities may be informed of decisions yet remain unconvinced that their concerns meaningfully influence project design, regulatory conditions, or operational practice.

For Traditional Owners in particular, engagement is most successful when it begins early, is continuous, and is embedded in governance structures rather than appended to approval processes. Social licence weakens where Traditional Owners are approached late in project development, presented with fixed proposals, or asked to respond within compressed timeframes that do not reflect cultural decision-making processes.

This submission finds that engagement quality improves markedly when projects articulate a **clear long-term purpose beyond extraction**, including how critical minerals will support future industries such as advanced manufacturing and the fusion energy industry. When communities understand that a project contributes to enduring national capabilities, rather than finite resource removal, consent is more resilient across project lifecycles.

Fusion-adjacent supply chains are particularly relevant in this context. These industries rely on advanced materials, precision engineering, and sustained workforce capability. As a result, they offer pathways for:

- long-term regional employment,
- skills development beyond construction phases,
- and opportunities for Indigenous participation in high-technology industries.

Where engagement explicitly links critical minerals development to these future pathways, discussions shift from impact mitigation alone to **shared economic participation**. This reframing has proven effective in regions where communities are seeking durable employment, skills transfer, and local industry diversification.

However, engagement outcomes are undermined where:

- regulatory roles are unclear or inconsistently communicated,
- different government agencies provide conflicting messages about risk or oversight,
- or communities are left to reconcile complex technical information without authoritative guidance.

In such cases, uncertainty becomes a driver of opposition, regardless of project merit. This is particularly evident where projects involve advanced technologies, novel materials, or perceived radiation or processing risks. Communities consistently report that **unclear governance, rather than technical danger, is the primary source of concern.**

Best practice engagement, therefore, requires:

- clear explanation of regulatory responsibilities across jurisdictions,
- transparent disclosure of risk thresholds and monitoring regimes,
- and accessible, science-based communication supported by trusted institutions.

Engagement must also be iterative. Social licence cannot be secured at the approval stage and assumed thereafter. It must be renewed as projects evolve, technologies advance, and market conditions change, particularly where projects are linked to emerging industries such as fusion energy that will mature over decades.

The Committee may wish to note that projects demonstrating early co-design with Traditional Owners, visible pathways into advanced industries, and sustained community dialogue show stronger consent durability and fewer approval delays than projects relying on compliance-only engagement models.

In **Western Australia**, engagement outcomes are shaped by long-standing exposure to mining activity, yet consent increasingly depends on cumulative impacts, workforce practices, and visible regional value retention. Communities respond more positively where engagement demonstrates progression beyond extraction into processing, advanced manufacturing, or fusion-enabled supply chains.

In **South Australia**, engagement quality is closely tied to confidence in regulatory and planning integrity. Communities place high value on early clarity regarding land-use compatibility and the role of critical minerals in supporting advanced manufacturing, defence, and future energy systems, including fusion.

In the **Northern Territory**, engagement success depends heavily on continuity and trust. Early co-design with Traditional Owners and transparent articulation of long-term national purpose, including links to fusion energy capability, materially strengthens social licence in regions that have experienced repeated cycles of exploration without lasting benefit.

2.1 Regional Variation in Engagement Dynamics

The factors shaping social licence and economic development outcomes in critical minerals projects vary materially across Australian states and territories. Differences in land use, population density, infrastructure maturity, and industrial strategy mean that engagement, regulation, and economic participation must be **regionally responsive**, not generic.

2.2 Western Australia

In Western Australia, critical minerals projects are often located in remote or semi-remote regions with long-standing resource activity. While communities may be familiar with mining operations, social licence remains sensitive to **cumulative impacts**, workforce fly-in fly-out reliance, and the extent of downstream value capture.

Projects that articulate a clear link between critical minerals extraction, local processing, and future industries such as fusion energy demonstrate stronger consent durability. Where communities can see that materials extracted locally contribute to long-term advanced manufacturing or energy systems, rather than short-cycle export, acceptance improves and workforce retention strengthens.

2.3 South Australia

South Australia's critical minerals projects frequently intersect with mixed land use, including agriculture, regional towns, and environmentally sensitive areas. Social licence in this context is shaped less by mining familiarity and more by **confidence in regulation and land-use compatibility**.

In SA, projects that integrate critical minerals development with advanced manufacturing, defence, and future energy systems, including fusion-related technologies, benefit from a clearer economic narrative. Communities respond positively when projects are framed as contributors to enduring industrial capability rather than isolated extraction sites.

2.4 Northern Territory

In the Northern Territory, social licence is closely linked to Traditional Owner engagement, long project timelines, and limited local service capacity. Projects often operate in regions where communities have experienced repeated cycles of exploration without development, or development without lasting benefit.

Critical minerals projects that clearly link extraction to long-term national capability, including future fusion energy systems, improve consent by shifting discussions toward intergenerational opportunity. Early co-design, transparent governance, and visible workforce pathways are particularly critical in this context.

3. Regulatory Clarity as a Social Licence Enabler

Regulatory clarity is a foundational determinant of social licence in critical minerals projects. While environmental performance and community engagement are essential, this submission finds that **uncertainty about regulatory responsibility is one of the most persistent and underestimated drivers of community opposition.**

Across jurisdictions, communities repeatedly express concern not only about project impacts, but about **who is responsible for oversight**, how risks are assessed, and what enforcement mechanisms apply over the full project lifecycle. Where regulatory roles are fragmented or poorly communicated, confidence in the entire system deteriorates.

Critical minerals projects frequently operate within complex regulatory environments involving Commonwealth, state, territory, and local authorities. This complexity increases where projects involve:

- advanced processing technologies,
- novel materials,
- transport of concentrates or intermediates,
- or integration with emerging industrial supply chains, including those associated with the fusion energy industry.

In such contexts, even technically low-risk activities can generate disproportionate concern if communities perceive regulatory gaps or contradictions. Social licence weakens when proponents, regulators, and governments provide inconsistent explanations of standards, thresholds, or approval authority.

This submission contends that **regulatory silence is as damaging as regulatory failure.** Where governments have not clearly articulated how existing frameworks apply to new or evolving industrial activities, communities often assume that oversight is inadequate or improvised. This perception is particularly acute where advanced energy or materials technologies are involved, regardless of their actual risk profile.

Fusion-adjacent industries illustrate this challenge clearly. These industries rely on critical minerals for magnets, structural materials, advanced alloys, diagnostics, and power systems. While fusion energy development presents long-term economic opportunity, it also requires governments to **explain regulatory applicability with precision**, rather than relying on legacy definitions or assumptions.

Projects that cannot point to clear regulatory pathways struggle to maintain trust, even when compliance is robust. Conversely, proponents that can demonstrate:

- clearly defined regulatory responsibility,
- transparent monitoring and reporting requirements,
- and enforceable compliance mechanisms,

are better positioned to sustain social licence across planning, construction, and operation.

Importantly, regulatory clarity is not solely a matter of legislation. It also depends on **public-facing communication**. Communities consistently report that they receive fragmented

information from multiple agencies, with no single authoritative explanation of how risks are governed. This creates an information vacuum that is quickly filled by speculation, misinformation, or distrust.

The submission further finds that early regulatory engagement improves social licence outcomes. Where regulators are visible, accessible, and consistent from the outset, community confidence increases, and engagement processes become more constructive. This is especially relevant for projects that support long-term industrial pathways such as fusion energy, where timelines and technologies may evolve significantly over time.

The Committee may therefore wish to consider regulatory clarity not as an administrative detail, but as a **core social licence instrument**. Clear jurisdictional coordination, transparent regulatory explanations, and consistent public messaging materially reduce conflict, delays, and litigation, while strengthening Australia’s reputation as a reliable supplier of critical minerals into advanced global industries.

4. Economic Development Outcomes Beyond Job Counts

Economic development outcomes from critical minerals projects are frequently assessed using narrow indicators such as construction-phase employment numbers or short-term revenue impacts. While these metrics are important, they do not adequately capture whether projects deliver **durable regional economic benefit** or contribute to long-term national capability.

Economic development outcomes associated with critical minerals projects are likewise shaped by regional context, with different states exhibiting distinct expectations around value capture, skills development, and the visibility of downstream industrial pathways.

Where projects are credibly linked to long-term industries such as fusion energy, these expectations increasingly shift from short-term employment metrics toward enduring regional capability.

This submission contends that the strength of social licence is closely linked to whether communities can see **lasting economic value** beyond the extraction phase. Projects perceived as transient or externally controlled are less likely to retain consent over time, particularly in regions that have experienced repeated cycles of boom and decline.

Critical minerals projects associated with future-oriented industries, including the fusion energy industry, offer an opportunity to shift this perception. Fusion-related supply chains require:

- high-purity materials,
- advanced processing,
- precision manufacturing,
- and sustained technical expertise.

These characteristics support longer project horizons, greater skills retention, and higher-value regional economic activity than extraction alone.

Where projects invest in downstream processing, materials handling, component fabrication, or testing capability, regional economies benefit through diversification rather than dependency. This is particularly relevant in regional and remote Australia, where workforce retention and service continuity are persistent challenges.

The submission finds that communities respond more positively when economic narratives move beyond “jobs created” to include:

- transferable skills and qualifications,
- local business participation in high-value supply chains,
- and pathways into advanced industries that persist after mine closure.

Fusion-adjacent industries strengthen this narrative by providing **future demand certainty**. Unlike commodity cycles driven solely by short-term market conditions, fusion energy development requires sustained material supply over long timeframes, aligning with stable regional employment and investment planning.

However, economic development outcomes are weakened where:

- downstream opportunities are not planned from the outset,
- regional infrastructure is treated as project-specific rather than shared,
- or skills development is disconnected from future industrial pathways.

In such cases, communities experience the impacts of development without securing commensurate long-term benefit, leading to erosion of social licence even where environmental performance is acceptable.

The Committee may wish to consider that economic development outcomes improve when critical minerals projects are explicitly integrated into **national industry strategies**, including those supporting fusion energy, advanced manufacturing, defence, and clean energy systems. This integration strengthens the case for local investment, workforce development, and infrastructure sharing, while improving public understanding of why projects matter beyond export revenue.

By aligning critical minerals development with long-term industrial capability, governments can improve both economic outcomes and community acceptance, reducing the likelihood of project delay, opposition, or cancellation.

In **Queensland**, economic legitimacy is closely tied to whether projects translate into genuine local participation rather than externally captured benefit. Projects that embed workforce development aligned to advanced industries, including fusion energy supply chains, demonstrate stronger community acceptance and improved workforce retention.

In **New South Wales**, economic outcomes are assessed through the lens of land-use compatibility, health assurance, and long-term justification. Projects linked to downstream processing, research activity, or fusion-related materials and components are more likely to be viewed as legitimate contributors to regional prosperity rather than disruptive land-use changes.

In **Victoria**, economic development narratives carry a high justification threshold. Communities respond more favourably to projects framed around innovation, advanced manufacturing, and future clean energy systems such as fusion, where skills development and long-term industrial relevance are explicit.

4.1 Regional Economic Expectations and Value Capture

Economic development outcomes associated with critical minerals projects are likewise shaped by regional context, with different states exhibiting distinct expectations around value capture, skills development, and the visibility of downstream industrial pathways.

Where projects are credibly linked to long-term industries such as fusion energy, these expectations increasingly shift from short-term employment metrics toward enduring regional capability.

4.2 Queensland

Queensland's critical minerals activity spans both remote inland regions and areas with established industrial infrastructure. Social licence challenges often arise where communities

perceive that resource development does not translate into **local economic participation or skills development**.

Projects that embed workforce pathways aligned to future industries, including fusion energy supply chains, demonstrate improved engagement outcomes. Long-term demand signals for advanced materials support regional training investment and strengthen community confidence in sustained economic benefit.

4.3 New South Wales

In New South Wales, critical minerals projects frequently operate near established communities, agricultural land, or transport corridors. Social licence is therefore highly sensitive to **perceived health, environmental, and land-use impacts**, as well as regulatory clarity.

Where projects are linked to downstream processing, research, or advanced industrial applications such as fusion-related materials and components, communities demonstrate greater tolerance for industrial activity. Clear regulatory explanations and visible government coordination are decisive factors in maintaining trust.

4.4 Victoria

Victoria's critical minerals projects often intersect with dense population centres and intensive land use. Social licence in this state is shaped strongly by **planning transparency, cumulative impact assessment, and economic justification**.

Projects that can demonstrate a clear role in future clean energy systems, including fusion energy, and associated high-skill employment pathways are better positioned to secure community acceptance. Economic narratives centred on innovation, advanced manufacturing, and long-term workforce development resonate more strongly than extraction-focused messaging.

5. Workforce Participation, Skills Development, and Employment Pathways

Workforce participation and skills development are central to both social licence and economic development outcomes in critical minerals projects. Communities consistently assess projects not only on environmental performance, but on whether they create **meaningful, lasting employment pathways**, particularly for regional, remote, and Indigenous populations.

This submission finds that workforce outcomes are strongest where projects are designed around **long-term skills formation**, rather than short-term labour demand. Construction-phase employment alone rarely delivers sustained benefit. Where operational roles are limited or highly specialised without local training pathways, communities experience workforce churn and reduced confidence in promised benefits.

Critical minerals projects linked to advanced industries, including the fusion energy industry, provide an opportunity to improve workforce outcomes by shifting the employment profile toward:

- higher-skill technical roles,
- longer operational timeframes,
- and transferable competencies applicable across multiple sectors.

Fusion-adjacent supply chains require expertise in materials science, advanced manufacturing, precision engineering, electrical systems, control technologies, and quality assurance. These skill sets align well with regional training institutions, apprenticeships, and vocational education when pathways are established early.

For Indigenous and remote communities, employment outcomes improve where:

- training is embedded before construction begins,
- qualifications are portable across projects and industries,
- and employment pathways extend beyond the life of a single site.

Engagement that links critical minerals projects to future industries such as fusion reframes workforce participation from short-term job creation to **career development and intergenerational opportunity**. This has been shown to increase community support, particularly where younger populations seek access to technologically advanced and future-relevant employment.

However, workforce participation is undermined where:

- training commitments are vague or deferred,
- contractors rely heavily on fly-in, fly-out labour without local transition plans,
- or skills programs are not aligned with downstream industrial demand.

In these cases, social licence erodes as communities perceive that economic benefits are externalised while local impacts remain.

The submission further notes that workforce outcomes are improved when governments coordinate skills policy with industry development strategies. Where critical minerals policy is aligned with emerging sectors such as fusion energy, training investments can be targeted toward skills that remain relevant over decades, rather than expiring with individual projects.

The Committee may wish to consider that workforce participation should be assessed not only by employment numbers, but by:

- skills transferability,
- career longevity,
- and alignment with future national industries.

Strengthening workforce pathways in this manner supports social licence by ensuring communities see themselves as **participants in Australia's future industrial economy**, not merely hosts to extractive activity.

6. The Role of Government and Jurisdictional Coordination

The effectiveness of critical minerals development in Australia is shaped not only by project design and community engagement, but by the degree of coordination between **Commonwealth, state, territory, and local governments**. This submission finds that fragmented governance is a recurring contributor to weakened social licence and sub-optimal economic outcomes.

Jurisdictional coordination challenges are experienced differently across states and territories, reflecting variations in planning systems, regulatory culture, and the degree to which projects intersect with populated, agricultural, or remote environments.

These differences underscore the importance of consistent Commonwealth leadership in articulating regulatory clarity while allowing state-specific engagement models to operate effectively.

Communities and proponents alike report difficulty navigating overlapping regulatory responsibilities, inconsistent policy signals, and unclear lines of accountability. These challenges are magnified for projects that involve advanced processing, novel materials, or integration with emerging industries such as the fusion energy sector.

At the Commonwealth level, critical minerals policy is increasingly framed in terms of national interest, supply-chain security, and strategic industry development. However, implementation frequently relies on state and territory regulatory systems that vary in scope, timing, and interpretation. Local governments, meanwhile, are often left to manage community expectations and land-use concerns without clear authority or technical guidance.

This misalignment creates several social licence risks:

- communities receive conflicting information from different levels of government,
- proponents struggle to provide consistent explanations of regulatory oversight,
- and accountability for long-term monitoring and compliance becomes opaque.

For critical minerals projects supporting fusion-adjacent supply chains, coordination challenges are particularly acute. These projects often sit at the intersection of mining regulation, industrial processing standards, transport frameworks, workforce policy, and long-term industry strategy. Where government roles are not clearly articulated, communities may perceive that projects are proceeding faster than governance frameworks can adapt.

The submission contends that **effective coordination strengthens social licence by reducing uncertainty**, rather than by accelerating approvals alone. Communities are more likely to support projects when they understand:

- which level of government regulates specific risks,
- how standards are enforced over time,
- and how responsibilities transfer as projects evolve.

Opportunities exist to improve coordination without legislative overhaul. These include:

- clearer public articulation of regulatory responsibilities across jurisdictions,
- early joint engagement by relevant agencies in community forums,
- and alignment of critical minerals policy with long-term industry strategies, including fusion energy development.

Local governments also play a critical role in shaping social licence outcomes. They are often the first point of contact for community concern yet are rarely resourced to engage meaningfully on complex technical or regulatory matters. Improved information sharing and support from state and Commonwealth agencies would strengthen local capacity and reduce misinformation at the community level.

The Committee may wish to consider that coordination failures are not merely administrative inefficiencies, but **direct contributors to social licence erosion and economic delay**. Conversely, coherent governance signals reinforce confidence, attract investment, and support regional development by providing certainty to communities and proponents alike.

6.1 Commonwealth–State Coordination

Jurisdictional coordination challenges are experienced differently across states and territories, reflecting variations in planning systems, regulatory culture, and the degree to which projects intersect with populated, agricultural, or remote environments.

These differences underscore the importance of consistent Commonwealth leadership in articulating regulatory clarity while allowing state-specific engagement models to operate effectively.

6.2 Local Government Capacity and Community Interface

Across jurisdictions, clearer alignment between Commonwealth industry strategy, state regulatory systems, and local government engagement capacity would materially strengthen social licence. This is particularly important where critical minerals projects support long-term industrial pathways such as fusion energy, which require stable governance signals over extended timeframes.

7. Tailoring Social Licence and Economic Outcomes to Specific Regions and Project Types

Social licence dynamics and economic development outcomes vary significantly across Australia depending on geography, project type, and the maturity of local industrial ecosystems. A one-size-fits-all approach to engagement, regulation, and economic participation risks undermining otherwise viable critical minerals projects.

This submission highlights several recurring regional and project-type patterns that warrant differentiated policy responses.

Remote and Arid Interior Regions

(Lithium, rare earths, uranium-associated critical minerals, speciality metals)

Projects in remote inland regions often intersect with:

- high proportions of Traditional Owner land,
- limited local service capacity,
- and long infrastructure supply chains.

In these regions, social licence is most sensitive to **early engagement, land stewardship, and long-term employment certainty**. Communities frequently express concern that extraction occurs without enduring regional capability or skills transfer.

Where critical minerals projects are visibly linked to future-facing industries such as fusion energy, advanced materials, and high-technology manufacturing, community acceptance improves. The prospect of long-term demand for specialised materials supports arguments for:

- regional processing hubs,
- permanent technical roles,
- and sustained training investment rather than transient construction work.

Regional Agricultural Zones

(Mineral sands, graphite, phosphate, rare earths in mixed-use landscapes)

In agriculturally productive regions, social licence is often shaped less by extraction itself and more by **perceived cumulative impacts** on land, water, and long-term regional identity.

In these areas, projects face heightened scrutiny where:

- regulatory roles are unclear,
- multiple agencies provide inconsistent messaging,
- or long-term land-use compatibility is insufficiently explained.

Fusion-adjacent industrial pathways offer an opportunity to reframe economic outcomes in these regions. When critical minerals are positioned as inputs into clean energy systems, high-

value manufacturing, and long-duration industrial demand, discussions move beyond extraction-versus-agriculture toward **coexistence and shared regional resilience**.

Coastal and Port-Adjacent Regions

(Processing, refining, export hubs, downstream manufacturing)

Projects located near ports or industrial zones are often critical to downstream value creation but face strong community scrutiny due to proximity to population centres.

In these regions, social licence is closely tied to:

- transparency of processing standards,
- clarity of regulatory oversight,
- and visible economic contribution beyond export throughput.

Where projects are linked to fusion energy supply chains, including magnets, advanced alloys, power electronics, or precision components, communities demonstrate greater tolerance for industrial activity when benefits are tangible and enduring.

Project Types with Elevated Social Sensitivity

Certain project characteristics consistently require higher engagement standards:

- **Processing and refining projects**, due to perceived health and environmental risks.
- **Projects involving advanced materials or novel technologies**, where public understanding may lag technical reality.
- **Long-life projects** where operational phases span generations.

In these cases, regulatory clarity and early government visibility are critical. Communities are more likely to grant consent when they understand how risks are governed and how projects fit into long-term national capability, including Australia's participation in emerging fusion energy ecosystems.

Implications for Policy and Committee Consideration

The Committee may wish to note that:

- Social licence risks are not uniform across regions or project types.
- Tailored engagement and regulatory approaches reduce conflict and delay.
- Linking critical minerals projects to future-oriented industries such as fusion energy strengthens economic narratives and regional consent.

Recognising these differences allows governments to move beyond compliance-based engagement toward **regionally responsive, future-aligned development**, improving both social licence and economic outcomes.

8. Recommendations to the Committee

Based on the matters outlined above, this submission makes the following recommendations for the Committee’s consideration.

Recommendation 1

That the Committee recommend the Commonwealth strengthen guidance on **early and ongoing community engagement** for critical minerals projects, with an emphasis on engagement as a continuous process across the full project lifecycle rather than a one-off approval requirement.

Recommendation 2

That the Committee recommend improved **co-design frameworks with Traditional Owners**, including earlier engagement prior to project definition, longer consultation timeframes that respect cultural decision-making processes, and governance structures that embed Traditional Owner participation throughout project operation.

Recommendation 3

That the Committee recommend the Commonwealth, in cooperation with states and territories, improve **public articulation of regulatory responsibilities**, including clear explanations of which agencies regulate specific risks and how compliance is monitored and enforced over time.

Recommendation 4

That the Committee recognise **regulatory clarity as a core contributor to social licence** and recommend that regulators adopt more visible and consistent public-facing engagement, particularly for projects involving advanced processing, novel materials, or emerging industrial applications.

Recommendation 5

That the Committee recommend critical minerals projects be more explicitly linked to **long-term national industry strategies**, including advanced manufacturing and the emerging fusion energy industry, to improve community understanding of enduring economic purpose beyond extraction.

Recommendation 6

That the Committee recommend economic development outcomes be assessed using **broader metrics than job numbers alone**, including skills transferability, regional value capture, downstream processing opportunities, and long-term workforce retention.

Recommendation 7

That the Committee recommend stronger alignment between **critical minerals policy and workforce planning**, including targeted vocational education, apprenticeships, and skills programs that support advanced industries such as fusion energy and associated high-technology supply chains.

Recommendation 8

That the Committee recommend enhanced **inter-governmental coordination mechanisms** to reduce duplication, clarify accountability, and provide consistent messaging to communities across Commonwealth, state, territory, and local government levels.

Recommendation 9

That the Committee recommend improved resourcing and technical support for **local governments**, enabling them to engage more effectively with communities on complex regulatory, environmental, and economic issues associated with critical minerals projects.

Recommendation 10

That the Committee recognise that **future-oriented industries such as fusion energy** strengthen social licence by providing long-term demand signals, skills pathways, and regional economic opportunity, and recommend that this future context be more clearly communicated in critical minerals policy and public engagement.

9. Submission Close

This submission is respectfully provided to assist the Committee in identifying practical reforms that strengthen social licence while improving economic development outcomes across Australia’s critical minerals sector. By aligning regulatory clarity, community engagement, workforce development, and future-facing industry strategy, Australia can position its critical minerals projects as foundations of enduring regional prosperity and national capability.

Annex

A. Stress-test against likely Committee questions

Below are **the questions most likely to face**, and why our submission now holds up.

“Isn’t fusion outside the scope of a critical minerals inquiry?”

✓ No. Fusion is framed as **downstream demand certainty**, skills alignment, and industrial context, not as an energy policy argument.

Is fusion energy banned in Australia due to nuclear laws?

Short answer

No. Fusion energy is not explicitly banned under Australian nuclear laws. “No, fusion energy is not banned under Australian nuclear laws, which prohibit Nuclear Fission facilities using fissile material, not fusion systems.”

“If fusion isn’t banned, why hasn’t it progressed in Australia?”

Answer

“Fusion has not progressed in Australia primarily due to regulatory silence rather than prohibition, combined with limited policy focus, funding continuity issues, and the absence of an explicit regulatory pathway distinguishing fusion from Nuclear Fission.”

Clear explanation

Australia’s nuclear prohibitions are framed around **Nuclear Fission**, not fusion.

At the Commonwealth level, the principal prohibitions relate to:

- nuclear fuel fabrication involving **fissile material**, and
- **nuclear reactors** as defined in legislation, which are facilities designed to sustain a **fission chain reaction**.

Fusion systems do **not**:

- use fissile fuel,
- sustain a fission chain reaction, or
- meet the statutory definition of a nuclear reactor under existing Australian law.

As a result, **fusion energy systems are not expressly prohibited** by current Commonwealth nuclear legislation.

What regulation *does* apply

While fusion is not banned, fusion facilities would still be subject to **existing regulatory frameworks** where relevant, including:

- radiation protection and safety regulation,
- industrial safety and environmental approvals,
- planning, land-use, and infrastructure regulation,
- workplace health and safety laws.

These regimes regulate **effects and risks**, not the technology category itself.

Why confusion persists

Public confusion often arises because:

- “nuclear” is used colloquially to describe both fission and fusion,
- existing laws pre-date commercial fusion development and do not define fusion explicitly,
- regulatory silence is sometimes misinterpreted as prohibition.

In practice, the issue is **regulatory clarity**, not legality.

By contrast, the United States, the United Kingdom, and the European Union have each explicitly clarified that fusion energy is distinct from Nuclear Fission in law and regulation, with bodies such as the U.S. Nuclear Regulatory Commission and the UK Atomic Energy Authority establishing fusion-specific regulatory pathways, while the European Union treats fusion as a separate advanced technology class under its research and energy frameworks.

Practical implication for the Committee

Fusion energy development in Australia is **legally permissible today**, but would benefit from:

- clearer regulatory guidance,
- explicit differentiation between fission and fusion in public-facing material,
- coordinated Commonwealth–state interpretation to reduce uncertainty for communities and investors.

This distinction matters for social licence, workforce planning, and Australia’s participation in future energy and advanced manufacturing supply chains.

“In short, fusion is legally permissible, but Australia has lacked the regulatory clarity, industrial policy alignment, and sustained investment that comparable countries have put in place.”

“Are you advocating for specific projects or companies?”

✓ No. No projects named. No companies referenced. The submission stays at policy and system level.

“How does this help social licence in contested regions?”

✓ By shifting debate from extraction impacts to **long-term regional purpose**, governance clarity, and skills continuity.

“Is this anti-renewables or pro-nuclear?”

✓ No. Fusion is presented as **complementary future industry demand**, not a replacement or ideological position.

“What can the Committee actually recommend?”

✓ Clear answers provided: coordination, regulatory clarity, engagement quality, workforce alignment, economic metrics.
