MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Shane Jones	**Portfolio**	Resources
Title of Cabinet paper	Regulating hydrogen resources through the Natural Environment Bill framework	**Date to be published**	3 November 2026

List of documents that have been proactively released		
Date	**Title**	**Author**
8 September 2026	Regulating hydrogen resources through the Natural Environment Bill framework	Office of Minister for Resources
16 September 2026	Regulating hydrogen resources through the Natural Environment Bill framework ECO-26-MIN-0181 Minute	Cabinet Office
8 September 2026	Regulatory Analysis Summary - Regulating hydrogen resources	MBIE
16 July 2026	BRIEFING-REQ-0034749 Regulating white and orange hydrogen resources	MBIE
November 2025	Enabling the Regulation of Natural and Orange Hydrogen: Policy Direction	Office of Minister for Resources
19 November 2025	Enabling the Regulation of Natural and Orange Hydrogen: Policy Direction ECO-25-MIN-0193 Minute	Cabinet Office

Information redacted **YES**

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Some information has been redacted for the reasons of privacy of natural persons and legal professional privilege.

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MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

BRIEFING

Regulating white and orange hydrogen resources

Date:	16 July 2026	**Priority:**	Urgent
Security classification:	In Confidence	**Tracking number:**	BRIEFING-REQ-0034749

Action sought		
	Action sought	**Deadline**
Hon Shane Jones **Minister for Resources**	**Note** that an amendment paper to the Natural Environment Bill (NEB) to enable the regulation of hydrogen is not possible this electoral term. **Note** that the proposed Natural Environment Act (NEA) will not be fully operational until 2029, providing time to progress this work. **Agree** to seek Cabinet's in-principle approval to progress a bill to amend the NEA and CMA to regulate white and orange hydrogen in 2027. **Note** that you could announce an in-principle decision at the Hydrogen event in Christchurch on 12 August. **Forward** the briefing to Minister Bishop and Under-Secretary Court.	17 July 2026

Contact for telephone discussion (if required)			
Name	**Position**	**Telephone**	**1st contact**
Lena MacCarthy	Manager, Resource Policy	Privacy of natural persons	✓
Susan Hall	Policy Director, Resource Markets	Privacy of natural persons	

The following departments/agencies have been consulted
Ministry for Cities, Environment, Regions and Transport

Minister's office to complete:

- ☐ Approved
- ☐ Noted
- ☐ Seen
- ☐ See Minister's Notes
- ☐ Declined
- ☐ Needs change
- ☐ Overtaken by Events
- ☐ Withdrawn

Comments

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BRIEFING

Regulating white and orange hydrogen resources

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Purpose

The purpose of this briefing is to provide a draft Cabinet paper to obtain Cabinet's in-principle approval to regulate white and orange hydrogen through amendments to the proposed Natural Environment Act (NEA) and Crown Minerals Act 1991 (CMA).

Executive summary

White (naturally occurring underground) and orange (stimulated from certain rocks) hydrogen have the potential to support New Zealand's economic growth, energy resilience and future export opportunities, but investment is currently constrained by uncertainty over ownership rights and the regulatory framework. In particular, hydrogen is a highly mobile resource that can move across multiple property boundaries, creating uncertainty over who owns the resource; and the process to produce orange hydrogen is not clearly regulated under the Crown Minerals Act 1991 (CMA). These issues create barriers to exploration and commercial development.

Cabinet has previously agreed not to vest ownership of hydrogen resources in the Crown and agreed to the continuation of work to investigate alternative regulatory approaches, including a framework similar to that used for geothermal resources. Following this direction, officials recommend regulating access to hydrogen resources through the proposed Natural Environment Act (NEA), supported by targeted amendments to the CMA.

A draft Cabinet paper is attached. We propose that the overall policy objective should be to develop a regime for white and orange hydrogen that enables the efficient, effective and responsible development of hydrogen, and provides investment and regulatory certainty to developers. We recommend obtaining Cabinet's in-principle agreement that:

- access to hydrogen resources be regulated through the NEA, in a manner analogous to geothermal resources, to be developed on an exclusive access basis.
- amendment be made to the CMA to clarify:
    - that hydrogen is not a mineral for the purposes of the CMA, and
    - how it applies when orange hydrogen is stimulated from minerals (rocks) that are regulated under the CMA.

The draft Cabinet paper notes that the question of how to provide adequate investment certainty about the ownership of extracted hydrogen requires further work and will be the subject of more detailed policy decisions in the future. Further work is also needed to confirm whether any other amendments will be needed to confirm the relationship between the NEA and CMA in respect of hydrogen.

There is insufficient time to progress the necessary changes through the current NEB parliamentary process, however, Cabinet's in-principle agreement would provide an opportunity for an announcement on the policy direction at the Hydrogen Hui on 12 August in Christchurch.

Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

a **Agree** to seek Cabinet's in-principle agreement to regulating white and orange hydrogen through the proposed Natural Environment Act (NEA) and consequential amendments to the Crown Minerals Act 1991 (CMA).

Agree / Disagree

b **Agree** the overall policy objective is to develop a regime for white and orange hydrogen that enables the efficient, effective and responsible development of hydrogen, and provides investment and regulatory certainty to developers.

Agree / Disagree

c **Agree** to seek Cabinet's in-principle agreement that:

i. amendments be made to the NEA to provide for the take, tapping and use of white and orange hydrogen, in a manner similar to geothermal resources

Agree / Disagree

ii. NEA authorisations for white and orange hydrogen should be capable of being granted on an exclusive basis, to provide investment certainty

Agree / Disagree

iii. the CMA be amended to clarify that hydrogen is not a mineral for the purposes of the CMA

Agree / Disagree

iv. the CMA be amended to clarify how it applies when orange hydrogen is stimulated from minerals (rocks) that are regulated under the CMA.

Agree / Disagree

d **Note** that further work is required on how to provide adequate investment certainty about the ownership of extracted hydrogen and to confirm the relationship between the NEA and CMA in respect of hydrogen.

Noted

e **Forward** this briefing to Minister Bishop and Under-Secretary Court, due to their responsibility for Resource Management Act reform.

Agree / Disagree

f **Indicate** whether you would like the attached draft Cabinet paper to progress as a joint paper with Minister Bishop and Under-Secretary Court.

Yes/No



Lena MacCarthy
Manager, Resource Policy
Building, Resources and Markets

..... / ..... / .....

Hon Shane Jones
Minister for Resources

..... / ..... / .....

Background

1. The National – NZ First Coalition Agreement contains a commitment to ‘ensure the government's energy settings allow for the exploration of natural geological hydrogen in New Zealand, to maximise future energy resilience’. MBIE provided advice to you in February 2024 outlining the regulatory and non-regulatory challenges for the exploration and development of natural hydrogen to progress this agreement [Briefing 2324-1704 refers].

2. Subsequently, Cabinet agreed in early May 2025 to consult on the option of regulating natural hydrogen resources (also referred to as white hydrogen), as part of supporting New Zealand’s economic growth, and energy security and resilience [ECO-25-MIN-0062 refers].

3. This consultation contained two options on how to regulate natural hydrogen through the Crown Minerals Act 1991 (CMA) or Resource Management Act 1991 (RMA). Industry had a clear preference for the use of the CMA to manage hydrogen resources; however this was contingent upon Crown ownership of those resources. The majority of iwi and hapū submitters opposed regulating hydrogen under the CMA and nationalisation of the resource. Submissions from iwi and hapū emphasised the need for any regulatory regime to uphold the Treaty of Waitangi and existing Treaty settlements. The majority supported a bespoke, Treaty-compliant regime that recognises Māori proprietary rights and interests and environmental stewardship.

4. Advice on the result of consultation was provided to the Cabinet Economic Policy Committee (ECO) in November 2025, [ECO-25-MIN-0193 refers]. ECO decided at that time not to vest ownership of white and orange hydrogen in the Crown and agreed to continue exploring their regulation through the CMA, in the RMA or bespoke legislation, including investigating an option for the Crown to have exclusive management and use rights akin to geothermal resources.

5. Since then, with your agreement, officials slowed work on hydrogen to enable resources to focus on critical minerals. On 18 June 2026, you directed officials to progress amendments to the Natural Environment Bill (NEB) to support a hydrogen regulatory regime.

6. On 3 July, the Ministry of Cities, Environment, Regions and Transport (MCERT) advised that the proposed changes fall outside the existing Cabinet delegations for the resource management reform programme, and there is insufficient time to progress an amendment paper through the current NEB parliamentary process.

7. Accordingly, this briefing provides advice on seeking Cabinet’s in-principle agreement to regulating white and orange hydrogen through the proposed Natural Environment Act (NEA). Legislative changes could be progressed through both an NEB and CMA Amendment Bill in 2027.

White and orange hydrogen have different properties

8. Hydrogen is the most abundant element in nature. White hydrogen (hydrogen occurring naturally underground) and orange hydrogen (hydrogen stimulated from certain rocks) are distinct from industrially produced hydrogen because they have a geological basis in nature. However, sector feedback is that uncertainty regarding ownership of these forms of hydrogen and concern that regulatory systems are not fit-for-purpose has constrained investment and development [BRIEFING-REQ-0019316].

White hydrogen is highly mobile and crosses property boundaries

9. White hydrogen occurs naturally through geological reactions and can accumulate in underground reservoirs. Unlike most mineral resources, as a gas, hydrogen is highly mobile.

Reservoirs can extend beneath multiple properties and are difficult to map, creating challenges determining ownership. [1]

Orange hydrogen comes from directed reactions

10. Orange hydrogen is produced by stimulating reactions between specific rock types and fluids or gases, either underground or above ground through processing extracted rock. The policy problem we are addressing relates to orange hydrogen stimulated *underground*. This process is not anticipated in the CMA. Orange hydrogen produced in laboratories involves extracted (mined) rock, the mining of which is regulated by the CMA.[2]

Regulation under the CMA requires either the Crown assume all or some ownership of hydrogen or change the scope of the CMA

11. The CMA regulates "Crown-owned minerals" – those that have been statutorily put into Crown ownership wherever they lie (under section 10),[3] those that are Crown-owned because the Crown owns the land in which they are found, or those reserved to the Crown under section 11. Legal professional privilege

12. Other jurisdictions commonly treat hydrogen as a state-owned resource, often in the same way that petroleum is regulated. Australia, France and Poland have adopted approaches based on state ownership or state-issued licences. The United States remains an exception, generally relying on private mineral ownership.

13. In purely practical terms, treating hydrogen as a state-owned resource like petroleum makes sense because of their similar properties – petroleum is also found in large underground reservoirs which cross land boundaries. Its status as a section 10 Crown-owned mineral removes complexity and uncertainty as to its ownership.

14. However, vesting ownership of hydrogen in the Crown in New Zealand would have significant implications in the context of obligations and interests arising under the Treaty of Waitangi. The Crown has not taken sole ownership of a mineral since uranium in 1945. Cabinet's direction that the ownership of hydrogen resources should not be vested in the Crown means that we do not consider the CMA to be a suitable option for addressing the regulation of hydrogen resources. Regulating hydrogen under the CMA *without* asserting Crown ownership would require a significant change to the conceptual underpinning of the CMA.

The resource management system manages similar challenges

15. The resource management system manages the interface between human activity and the natural environment, and access to natural resources, including the ability to take and discharge freshwater and the management of competing uses.

[1] Mineral rights are often associated with the land parcel under which they sit. Currently, a natural hydrogen reservoir crossing multiple properties could be owned by multiple parties.
[2] Where the rock is Crown-owned. See paragraph 11.
[3] Gold, silver, petroleum and uranium.

16. The RMA also provides for the taking, use and discharge of geothermal resources. Like natural hydrogen, geothermal resources are mobile resources occurring in large reservoirs, crossing multiple land parcels.

17. The Geothermal Energy Act 1953 (GEA) gave the Crown the sole right to "take, tap, use and apply" geothermal energy. It also gave the Crown the ability to:

    a. delegate its right to "tap, take, use and apply" geothermal energy to individuals or organisations by way of Geothermal Authorities and Geothermal Licences

    b. require individuals to obtain a licence to tap, take, use or apply geothermal energy for any purpose, and

    c. recover rent for the commercial use of geothermal energy.

18. The RMA consent regime replaced the regime under the GEA. There is currently no specific allocation method for geothermal resources under the RMA – consents are issued on a first-in, first-served basis.[4] In section 354, the RMA preserves the Crown's sole right to "tap, take, use and apply" geothermal energy.

19. Legal professional privilege

20. This position is being continued under the NEB, clause 223 of which provides:

    Allocation of natural resources

    Every regional council has responsibility for allocating any of the following, as it considers appropriate:

    (a) the taking, diverting, or use of freshwater, geothermal water, or coastal water:

    (b) the taking or use of heat or energy from water:

    (c) the taking or use of heat or energy from the material surrounding geothermal water: …

21. Clause 327 of the Bill clarifies that the Act does not create or transfer any proprietary right or interest or extinguish or determine any customary right or interest that may exist in freshwater or geothermal resources.

22. We consider that, while there are trade-offs and risks (as expanded upon below), a similar approach to the allocation of geothermal resources could be adopted for hydrogen under the proposed NEA. Doing so is well aligned with the purpose of the proposed NEA (to provide a framework for the protection, use and development of natural resources) and, as currently drafted, it provides for a range of consenting approaches which could support the proposed objective (such as competing applications for a limited resource).

[4] The recently introduced Natural Environment Bill which would replace the RMA proposes a framework for other allocation methods such as auctions, tenders and comparative consenting.
[5] The Waitangi Tribunal found that Māori had rights of a proprietary nature in geothermal resources and freshwater in *The Stage 1 Report on the National Freshwater and Geothermal Resources Claim* (WAI 2358, 2012).

Further work would be needed to ensure investment certainty under the NEA approach

23. Legal professional privilege

24. Legal professional privilege

25. The policy intention, and nature of an approval under the NEA, is that access to the hydrogen allocated under the approval would be on an exclusive rights basis. That is, the person with the approval would have exclusive rights to access the resource.

26. Legal professional privilege we consider further changes might be needed to give sufficient certainty to potential investors that they can commercialise the hydrogen accessed. In case we determine this is needed, we have currently identified two options. One is for legislation to vest in the Crown the sole right to "take, tap, use and apply" white hydrogen, as was done in respect of geothermal under the GEA.

27. The second option could be to establish a 'rule of capture' in legislation by provisions providing that hydrogen is owned by the holder of a statutory approval when the hydrogen is lawfully captured in the course of activities authorised by the approval. This approach would clarify ownership of hydrogen after capture without making hydrogen an unowned resource. Section 31 of the CMA provides an example of such a provision in existing legislation, albeit in a context where the resources in question are all owned by the Crown rather than private individuals.[6]

All of these approaches are likely to impact private property rights …

28. Any of the approaches described above would mean existing owners would lose key features of ownership like financial benefits, control and exclusivity over the resource.

29. We propose that further work would be needed to assess:

    a. the pros and cons of the two options described above, and whether there are other legal mechanisms (including non-legislative (contractual) mechanisms) that we have not yet identified

    b. how to draft any legislative mechanism to give adequate investment certainty, in a way that is proportionate, and

    c. the extent to which any mechanisms would need to be applied to the process to produce subsurface orange hydrogen. This may depend on the potential for orange hydrogen to cross land boundaries, once it is stimulated.

30. We recommend that this work should be accompanied by further consultation with both the sector and iwi and hapū submitters.

[6] "Every permit holder shall be the owner of all minerals lawfully obtained by or on behalf of the permit holder in the course of activities authorised by the permit."

31. The approaches will also have implications under the Regulatory Standards Act 2025 (RSA). One of the principles of responsible regulation under the RSA is that legislation should not take or severely impair, or authorise the taking or severe impairment of, property without the consent of the owner unless there is good justification and fair compensation.

32. Whether there is an inconsistency with that principle will depend on whether there is good justification for the impairment of hydrogen property interests and whether there are mechanisms in the legislation for the provision of compensation. For a measure to be justified, MBIE will need to ensure it is proportionate and that legislation does not inhibit property rights more than is necessary to achieve these outcomes. These factors will need to be considered as part of the policy as it is developed.

33. Different approaches, with different property impacts, will also potentially raise legal risk. We can advise on this as proposals are developed further.

Amendments to the CMA would be needed to ensure regulatory coherence

34. Legal professional privilege We recommend that certainty be provided by amending the CMA to state that hydrogen is not a mineral for the purposes of the CMA.

35. The relationship between the NEA and CMA in respect of orange hydrogen will be slightly more complicated than for white hydrogen. This is because orange hydrogen is produced by stimulating a chemical reaction between certain rocks, gas and fluid. The rocks involved are minerals for the purposes of the CMA, and so (where they are Crown-owned) the prospecting, exploration and mining of them are subject to the Act.

36. To illustrate, where the rocks are extracted for laboratory-based production of orange hydrogen, a mining permit will be required. However, there is a question about the application of the CMA to the process of stimulating orange hydrogen from rocks where they are situated underground**.** Legal professional privilege The ownership question discussed above is also potentially relevant to orange hydrogen stimulated underground, especially where it co-mingles with naturally occurring (white) hydrogen.

37. Future detailed policy decisions will be sought on how to provide certainty on the relationship between the NEA and CMA when orange hydrogen is stimulated from minerals (rocks) that are regulated under the CMA.

Other areas for further work

38. We will also explore the following policy design questions in the next phase of work:

    a. **Transitional issues:** While we are not currently issuing CMA permits to extract or produce natural or orange hydrogen, applications have been made in anticipation of a future regulatory change to allow this. We will seek decisions on how to address these in a way that gives regulatory certainty.

    b. **Royalties/rents:** Part 3 of the Resource Management (Transitional, Fees, Rents, and Royalties) Regulations 1991 provide for the payment of rent and royalties for geothermal approvals. However, we understand that these are not collected.

Consideration could be given to the imposition of rent or royalties for hydrogen resources regulated under the NEA. This could include consideration being given to the potential for royalty sharing, for example with affected landowners/iwi and hapū.

c. **Secondary instruments, including national policy direction and national standards:** The approach to secondary instruments under the NEA is still under development. There may be an opportunity to provide greater direction and certainty about the regulation of both white and orange hydrogen through these instruments. We will work with MCERT to explore whether secondary instruments under the NEA should be issued, and their scope.

You could obtain Cabinet's in-principle approval for this policy approach and announce it at the 12 August hydrogen event

39. We have provided a draft Cabinet paper to obtain in-principle approval for the following:

    a. amendments be made to the NEA to provide for the take, tapping and use of white and orange hydrogen, in a manner similar to geothermal resources

    b. NEA authorisations for white and orange hydrogen should be capable of being granted on an exclusive basis, to provide investment certainty

    c. the CMA be amended to clarify that hydrogen is not a mineral for the purposes of the CMA, and

    d. the CMA be amended to clarify how it applies when orange hydrogen is stimulated from minerals (rocks) that are regulated under the CMA.

40. Subject to your agreement, we propose an ECO date of 29 July, with lodgement on 23 July. We recommend that you forward this briefing to Minister Bishop and Under-Secretary Court, who hold current Cabinet delegations for the RMA Reform process.

41. You may wish to seek to submit the proposed Cabinet paper as a joint paper with Minister Bishop and Under-Secretary Court, due to their responsibility for RMA Reform.

Impacts and Risk

42. The proposed changes would provide greater investment certainty by providing exclusive rights to access the resource, supporting development of this resource. Some property owners may be concerned about the impact on their ownership rights. These impacts and possible mitigations can be explored further through the next phase of work.

43. Treaty partners are likely to share concerns similar to landowners, as they may hold interests as landowners in white hydrogen, as well as rights and interests arising from customary interests, customary marine title interests, and Treaty settlement arrangements. Similar Treaty arguments to those raised in relation to the nationalisation of petroleum could emerge for white hydrogen. Early, meaningful engagement with Māori, iwi, and customary marine title holders will be critical to understand their rights and interests, and manage risks.

44. MCERT agree that hydrogen could be regulated through the NEA framework, similar to freshwater or geothermal resources, but note the unresolved questions around ownership and access rights. It considers that legislating ownership could create broader legal and Treaty issues and recommends further policy work, including engagement with Treaty partners.

Next steps

45. Subject to your office's confirmation, we will work towards lodgement of the paper on 23 July. We will work with your office on an announcement at the 12 August Hydrogen Hui.

46. We will advance work, in consultation with MCERT, on the detailed design of this Amendment Bill. We understand that the new resource management system will not be fully implemented until 2029 at the earliest. We will be proposing a 2027 legislative bid for Legislative Priority Category Four – to be passed in 2027 if possible.

Annexes

Annex One: draft Cabinet paper seeking in-principle agreement

Annex One: draft Cabinet paper seeking in-principle agreement