



## COVERSHEET

|                               |                                                                                                 |                             |                 |
|-------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------|-----------------|
| <b>Minister</b>               | Hon Shane Jones                                                                                 | <b>Portfolio</b>            | Resources       |
| <b>Title of Cabinet paper</b> | Removing royalty obligations to encourage the development of underground gas storage facilities | <b>Date to be published</b> | 12 October 2026 |

### List of documents that have been proactively released

| <b>Date</b>    | <b>Title</b>                                                                                                                 | <b>Author</b>                        |
|----------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 19 August 2026 | Removing royalty obligations to encourage the development of underground gas storage facilities                              | Office of the Minister for Resources |
| 26 August 2026 | Removing Royalty Obligations to Encourage the Development of Underground Gas Storage Facilities<br>ECO-26-MIN-0170 Minute    | Cabinet Office                       |
| 19 August 2026 | Regulatory Analysis Summary: Removing royalty obligations to encourage the development of underground gas storage facilities | MBIE                                 |

### Information redacted

### YES / NO

Any information redacted in this document is redacted in accordance with MBIE's policy on Proactive Release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Some information has been withheld for the reasons of confidential information entrusted to the government, legal professional privilege, international relations and commercial information.



# Regulatory Analysis Summary: Removing royalty obligations to encourage the development of underground gas storage facilities

|                                   |                                                                                                                                                                                    |  |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Decision sought                   | <i>Final Cabinet policy decisions to amend royalty regulations to remove the obligation to pay the royalty on original gas when developing an underground gas storage facility</i> |  |
| Agency responsible                | <i>Ministry of Business, Innovation and Employment</i>                                                                                                                             |  |
| Portfolio Minister(s)             | <i>Minister for Resources</i>                                                                                                                                                      |  |
| Date finalised                    | <i>19 August 2026</i>                                                                                                                                                              |  |
| Ministry for Regulation ID number | REG-2230                                                                                                                                                                           |  |

## Brief description of the Minister's regulatory proposal (preferred option)

The Minister for Resources is proposing to remove the obligation to pay royalties on original gas that is required to support the operation of underground gas storage (UGS) facilities, to incentivise development of new facilities to support energy security.

## Summary of the problem definition

The gas system lacks the flexibility to balance supply and demand. Currently Methanex supports this balancing by providing significant demand response. Methanex is expected to leave the New Zealand market in the next 12 months, because of the pending closure of the Māui gas field. Without other sources of flexibility, a larger number of firms could have to close (temporarily or permanently) at times in order to keep gas demand aligned with supply. This could further reduce gas production and increase the economic impacts of declining gas supply.

Expanded UGS capacity will provide additional flexibility to support New Zealand's domestic natural gas system. However current royalty settings may be deterring new UGS developments. This is because operators are required to pay royalties on 'original gas' upfront when converting depleted reservoirs to underground gas storage (UGS) - increasing project costs before revenues are realised.

Given the significant capital investment required for UGS developments, this upfront cost may discourage investment and act as a barrier to new storage capacity, limiting gas system flexibility and security of supply.

**Summary of options considered for addressing the problem**

The RAS considers three options: maintaining the status quo; removing the royalty obligation on original gas entirely; and spreading the upfront royalty payment over a period of five years to reduce the upfront financial burden to developers.

These options are part of wider work to support the development of underground gas storage. This includes adding investments to support the development of new UGS facilities into the scope of the Gas Security Fund.

Because the current requirement to pay the royalty upfront is set out in the regulations, non-regulatory options were not considered.

**Is the Minister's preferred option in the Cabinet paper the same as the preferred option in the RAS?**

Yes.

**Summary of the main benefits of the Minister's preferred option**

Removing the obligation imposed by the royalty regulations will improve project economics for developers considering UGS projects. Improved project economics will help increase the likelihood that UGS projects will go ahead, increasing energy security in a dry year and during times of peak demand.

However, it is important to note that royalties on original gas are a relatively small proportion of the total costs of developing new UGS facilities. Therefore, it is not certain what direct effect this change will have on final investment decisions.

It will also bring New Zealand in line with other jurisdictions, who treat the original gas in depleted gas reservoirs that are converted to gas storage facilities as inventory, rather than as economically recoverable gas reserves upon which royalties are payable.

**Summary of the main costs of the Minister's preferred option**

There may be minor compliance and implementation costs associated with this proposal.

Based on known proposals, we estimate the cost to the Crown in foregone royalty revenue (if all projects proceed as proposed) is \$5-6 million. The estimated loss in royalty revenue from future UGS proposals is unknown.

**Does the RAS indicate that the benefits of the Minister's preferred option are likely to outweigh the costs?**

Yes – the benefits for energy security are significant for the New Zealand economy, versus the relatively small cost of foregone Crown royalty revenue.

**Have any potential inconsistencies with the principles of responsible regulation in the Regulatory Standards Act been identified in relation to the Minister's preferred option?**

No.

**Limitations and constraints on analysis**

|                         |     |                        |     |
|-------------------------|-----|------------------------|-----|
| Condensed timeframes    | Yes | Constrained option set | Yes |
| Legislative constraints | No  | Data and evidence gaps | Yes |

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| Ministerial direction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes | Other | No |
| Limited public consultation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes |       |    |
| <p><b>Summary of limitations and constraints on analysis</b></p> <p><u>Limited public consultation, condensed timeframes and Ministerial direction</u></p> <p>Officials consulted with both industry and the eight iwi in the Taranaki region on an earlier policy proposal that sought to reduce the upfront financial barrier to development by introducing flexibility to the timing of the royalty payment.</p> <p>The proposal to completely remove the royalty obligation was originally discounted, and therefore not consulted on (though industry had indicated during consultation that they would support removal of royalties). The recent change in Ministerial direction meant that there was insufficient time to consult with industry and iwi on the option to remove the royalty obligation altogether, and analysis of this option was done under tight timeframes.</p> <p><b>What are the implications of these limitations and constraints, and what has been done – or will be done – to mitigate and manage them?</b></p> <p>Industry feedback was that they would support removal of upfront royalty requirements (despite this option not being presented during consultation). This option was also suggested by the Gas Working Group. MBIE is therefore confident the option will be supported by industry on this basis. During consultation with iwi, there was relatively little discussion on royalty settings. Discussion was more focused on broader concerns held by iwi regarding the wider regulatory framework for UGS, which was beyond the scope of the policy proposal.</p> <p>Condensed timeframes mean it is possible not all trade-offs have been identified or thoroughly assessed, however on balance the benefits for New Zealand's energy security of the proposal are potentially significant and should be pursued. The PCO drafting process may provide an opportunity to mitigate any issues not yet known. The permitting process with the regulator may present issues not yet known and that can be mitigated by a regulatory amendment if necessary. We will continue engagement with the regulator as new permit applications go through the approvals process.</p> |     |       |    |

**I am satisfied that, given the available evidence, this RAS represents a reasonable view of the likely costs, benefits and impact of the preferred option.**

**Responsible Manager signature:**

**Lena MacCarthy**

**Manager, Resource Markets**

**19 August 2026**



| Quality Assurance Statement                                                                                                                                                                                                                                                                                                                                                                          |                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| <b>Reviewing Agency:</b> MBIE                                                                                                                                                                                                                                                                                                                                                                        | <b>QA rating:</b> partially meets |
| <p><b>Panel Comment:</b></p> <p>The panel considers that the RAS partially meets the Quality Assurance criteria. Limitations in the evidence base, consultation, and consideration of alternative options reduce confidence in some conclusions. However, these limitations are identified and do not prevent the RAS from providing sufficient information to support informed decision-making.</p> |                                   |

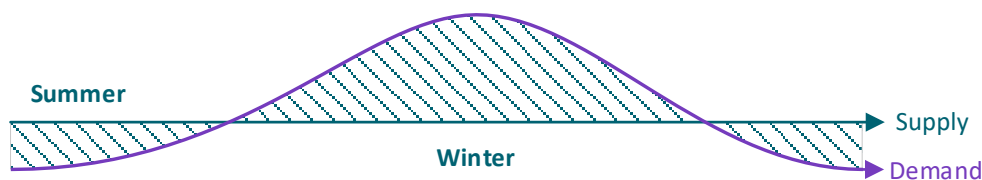
## Section 1: Diagnosing the policy problem

### What is the policy problem?

#### Background – We are facing unprecedented challenges to our energy security

1. Natural gas is used for electricity generation, particularly in dry years when hydro inflows are low, and in periods of peak demand. Genesis Energy, Contact Energy and Nova Gas all use natural gas to power turbines and generate electricity.
2. Natural gas tends to be produced as a constant flow throughout the year, but demand is far more cyclical, with peaks over winter when demand for electricity generation is higher, and in dry years.

**Figure 1: While supply is relatively constant, there is seasonal variability in the demand for gas.**



3. To date, Methanex, New Zealand's largest natural gas user (used to produce methanol), has played a key role in supporting the flexibility of the system by reducing or stopping production of methanol to allow gas to be redirected to electricity generation during periods of peak demand. This is called 'demand response'. For example, in the 2024 dry year event, Methanex made 22 PJ of gas available to support electricity generation.<sup>1</sup>
4. Gas for Methanex is predominantly sourced from the Māui gas field. The expected closure of both the Māui gas field and consequently Methanex (expected late 2026 or early 2027) pose major implications for the ability of the gas system to maintain a stable and affordable supply of gas through demand response, for electricity generation and industrial users.
5. Once this happens, New Zealand's largest source of gas system flexibility will be gone. Other gas users are considerably smaller in scale than Methanex and have limited ability to flex their demand as part of any demand response.
6. Genesis Energy's Huntly Power Station (HPS) is critical for electricity security of supply and generates electricity using gas and coal. During tight market conditions and dry years, it has sourced gas from Methanex to operate two gas fuelled units – Unit 5 is the most significant (400 MW). Although Genesis has worked with other gentailers to build a coal stockpile to support dry year electricity generation in three of its generation units at HPS, in a dry year up to 12 PJ of gas could be needed in addition to coal, to cover electricity generation shortfalls.
7. For industrial gas users, if there is no longer flexibility in the gas system to meet periods of peak demand, they may be required to close (temporarily or permanently) during these periods. If demand reduction is required in future to balance the gas system, it will affect a larger group of industrial users.

<sup>1</sup> To put this figure into context, an indicative LNG shipment has an energy content of 4.5 PJ (New Zealand LNG Import Facility Feasibility Assessment report; December 2024).

## Underground gas storage facilities can provide additional flexibility to manage energy security risk

8. Underground gas storage (**UGS**) is the use of subsurface geological structures to store natural gas produced elsewhere for later use. UGS facilities offer an additional way to provide flexibility for the gas system, acting like a battery to help manage seasonal demand. Internationally, UGS facilities most commonly occur at largely depleted natural gas fields. These are well suited for UGS as they are geologically capable of storing gas, the reservoir characteristics are already well known, and they are co-located with connections to existing distribution networks.
9. New Zealand has one UGS facility at Ahuroa in Taranaki which has been operational since 2011. However, its capacity (7 PJ) is insufficient to replace the large-scale demand response currently provided by Methanex.<sup>2</sup>
10. UGS requires high quality, permeable geological reservoirs. Several depleted reservoirs in Taranaki may also be well suited to UGS developments. At present, MBIE is aware of four separate proposed gas storage projects of various sizes. These proposals have a combined storage capacity of (up to) ~21 PJ. If all proposals are successful, New Zealand's gas storage capacity would quadruple and could address the impending loss of flexibility available in the gas system once Methanex leaves.
11. UGS could also support stockpiling of regasified LNG imports and, in future, may have potential to be adapted to store alternative gases as the system moves towards renewables.
12. The Government has already signalled its willingness to support investment in the development of new UGS facilities by expanding the scope of the Gas Security Fund<sup>3</sup> to include gas storage. If any applications for gas storage projects to the Fund were successful, and the Crown still required an upfront royalty, the Crown would essentially be providing a developer with the money to pay the royalty.

### The current royalty framework for underground gas storage

13. A key concept in the royalty treatment of underground gas storage facilities is 'original gas'. This is the economically recoverable gas present in the reservoir before the injection of gas from another permit area.
14. Some or all of the original gas may be retained permanently in the reservoir as cushion gas. Cushion gas maintains the pressure required for the storage facility to operate and may never be extracted or sold. The amount required depends on the characteristics of the reservoir and the design of the storage facility. In some cases, the volume of original gas present in the reservoir may be sufficient to meet all cushion gas requirements. In other cases, additional gas may need to be injected and retained as cushion gas, while some original gas may remain available for production.
15. Under Regulation 15 of the Crown Minerals (Royalties for Petroleum) Regulations 2013 (the **royalty regulations**), the holder of a mining permit that includes a UGS facility must pay a one-off royalty on the original gas in the reservoir if any gas to be injected is mined from

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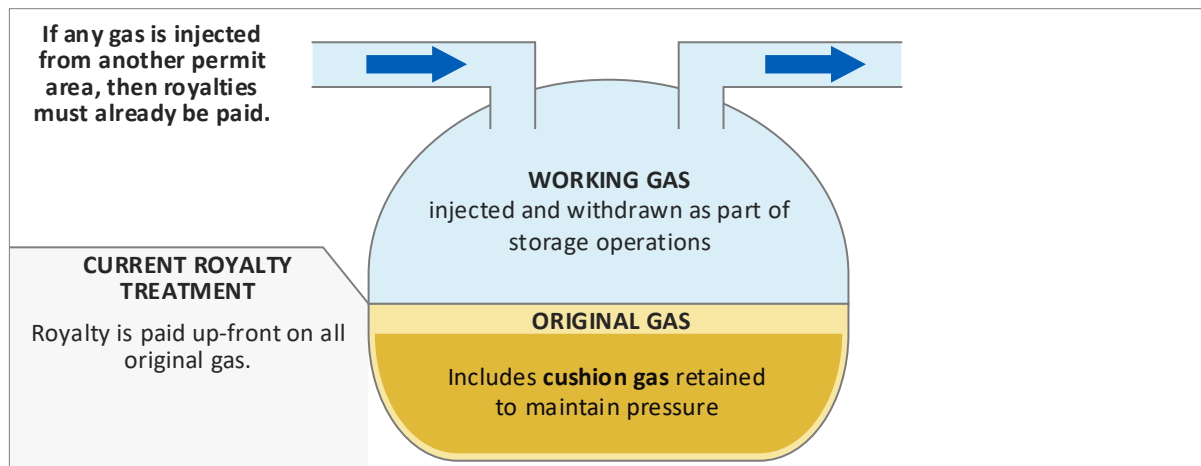
<sup>2</sup> In the 2024 dry year event, Ahuroa drew down 3.1 PJ, around 14 per cent of the 22 PJ demand response provided by Methanex over the same period.

<sup>3</sup> [Gas Security Fund | Grow Regions](#)

outside the area of the permit. This royalty must be paid upfront, within 30 days of the granting of the permit. This regulation does not apply where a UGS is only used to store gas mined within the permit area. Royalties on that gas are payable at the point it leaves the permit area – regardless of whether it is stored first.

16. The amount of original gas must be determined by an independent expert. Under standard circumstances this would involve an independent review of the methodology used by the permit applicant. It would not involve separate field work.

**Figure 2: Current royalty treatment of gas in a UGS facility under Regulation 15**



17. These settings were developed for the permitting of the Ahuroa storage facility in 2010 and were standardised for future developments in the royalty regulations in 2013.
18. The current treatment is based on the principle that the Crown is entitled to the royalties that would have been paid on the original gas if the reservoir had not been converted to a UGS facility. Additionally, these arrangements provide a mechanism to ensure all gas in the facility is royalty-paid. However, this also means that operators are required to pay royalties on gas that may never be extracted for sale to end users.
19. New Zealand’s approach to recovering upfront royalties on the original gas in underground storage is an outlier compared with other countries. Most countries treat gas storage as a midstream form of infrastructure, with royalties paid on extraction further upstream (nearer the original extraction source).
20. Some countries, such as the United States, do gather royalties on the original cushion gas – but only if it is extracted from the facility and sold.<sup>4</sup> This is consistent with how New Zealand treats gas that is extracted and stored within one permit area.

<sup>4</sup> See, for example US Code of Federal Regulations: “No royalty is due on residue gas, or any gas plant product resulting from processing gas, which is reinjected into a reservoir within the same lease, unit area, or communitized area, when the reinjection is included in a plan of development or operations and the plan has received BLM or Bureau of Ocean Energy Management (BOEM) approval for onshore or offshore operations, respectively, until such time as they are finally produced from the reservoir for sale or other disposition off-lease.” [30 CFR 1202.151\(c\)](#)

## **Feedback from the gas industry suggested current royalty settings may be inhibiting new UGS developments**

21. New UGS facilities have assumed greater strategic importance given the wider changes occurring across the gas and energy system.
22. However, some developers considering UGS projects indicate that the requirement to pay the royalty on original gas upfront is negatively impacting project economics. It is an additional cost incurred at the outset of operations, likely before they turn a profit. The need to increase gas supply and system flexibility, and that current royalty settings are a disincentive to new UGS developments, was raised by the Gas Working Group (made up of representatives across the gas system) in November 2025.<sup>5</sup>
23. Converting a depleted reservoir to a UGS facility requires significant capital investment in injection and extraction equipment, in the order of many tens of millions of dollars. The costs incurred through regulatory settings are considered alongside other significant factors before a final investment decision (FID) is made.
24. However, industry feedback is that the requirement to pay royalties upfront may be of enough significance that operators choose not to proceed with UGS developments and instead choose to direct capital to other projects or to continue conventional production to deplete remaining gas reserves.

## **MBIE was asked to review current settings to see if they were still fit for purpose**

25. The Minister for Resources commissioned a review of the current regulatory framework for UGS, following feedback from stakeholders and the Gas Working Group that a full upfront royalty payment may be unnecessarily inhibiting investment.
26. Following the review, in March 2026 a policy decision was made to progress the option to amend the regulations to allow royalties obligations to be met over a defined period.
27. In July 2026, following advice on options to enable spreading royalties over a defined period, a new and preferred option was proposed by the Minister. The preferred option now is to remove the requirement to pay royalties on original (or cushion) gas in UGS facilities.

## **What objectives are sought in relation to the policy problem?**

28. The primary policy objective is to strengthen New Zealand's energy security by incentivising the development of new UGS facilities.
29. The policy should also:
  - minimise unnecessary regulatory barriers to the development of UGS facilities
  - provide an appropriate return to the Crown from the use of petroleum resources
  - minimise compliance and administration costs for permit holders and the regulator
  - provide a response that is proportionate to the scale of the problem.

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<sup>5</sup> Gas Working Group (2025) [Final report and recommended actions](#), p. 6.

## What external consultation has been undertaken?

30. During the period March – May 2026, MBIE undertook targeted consultation with industry and Taranaki iwi on the barrier posed by the upfront royalty and options to reduce barriers and incentivise development of new UGS facilities.
31. This consultation was focused on potential changes to regulation 15, including options to defer and spread royalty payments over time, the length and structure of a royalty payment window, mechanisms to ensure recovery of the full royalty value owed to the Crown, and the relative merits of a prescribed versus flexible approach for determining payment arrangements.
32. MBIE did not explicitly consult on Option 2 (full removal of royalties on original gas). This option was developed after consultation had concluded. Stakeholder feedback therefore relates only to options relating to adjusting royalty setting and should there be considered in that context.

### **MBIE undertook targeted consultation with potential UGS developers and sector representatives on options**

33. MBIE sought engagement on the policy proposal with the four operators known to be exploring UGS development. Conversations were ultimately had with three potential developers, and additional potential developers were communicated with via email. Industry stakeholders engaged included:
  - New Zealand Energy Corporation (NZEC), which is developing a UGS facility at the depleted Tariki gas field in Taranaki.
  - Matahio (recently purchased by Sunda Energy), which is exploring a UGS development at the Sidewinder field in Taranaki.
  - Other potential developers who cannot be named due to commercial sensitivities.
  - Energy Resources Aotearoa (ERA).
34. Industry stakeholders were generally supportive of measures to reduce the upfront royalty burden. However, some developers and the ERA representative considered the proposed changes did not go far enough and indicated that removal of the royalty burden would be preferable.
35. Two potential UGS developers indicated that their preference would be for amended regulations to set out a case-by-case approach, rather than having streamlined rules for all UGS developers.
36. Industry also raised additional barriers to UGS developments that cannot be addressed by changes to the royalty regulations. These include permitting timeframes (separate efforts are underway with the regulator to improve permitting timelines) and the overall design of the framework for UGS activities. This included, for example, storing both royalty unpaid and paid gas within the same facility. However, the scope of the review was limited to the royalty regulations, and not the CMA itself (which sets out the framework for UGS activities).
37. Given the comments on removal of the royalty burden noted in paragraph 34 above, we are confident that industry will be supportive of proposed approach.

## **MBIE undertook targeted consultation with all iwi of Taranaki**

38. MBIE has obligations under relevant Treaty settlements (Crown Minerals Protocols and Relationship Agreements) to engage early on policy issues or legislative amendments relating to the administration of the Crown minerals estate which may affect iwi interests.
39. As new UGS developments are likely to occur within the Taranaki region, MBIE identified that all eight iwi of Taranaki (Ngāti Rauru, Ngāruahine, Taranaki iwi, Te Atiawa, Ngāti Maru, Ngāti Tama, Ngāti Mutunga, and Ngāti Ruanui) have an interest in this work.
40. A joint online hui with representatives from Ngāruahine, Te Atiawa, Ngāti Maru, Ngāti Mutunga and Ngā Iwi o Taranaki/Te Tōpuni Ngārahu was held on 19 May 2026. Written feedback was received from Ngāti Maru, Ngāti Ruanui, Ngāti Rauru, Ngāti Mutunga, Taranaki iwi, and Te Tōpuni Ngārahu.

### ***Iwi raised broader concerns about the regulatory framework but were not opposed to spreading royalty payments over time***

41. Given that New Zealand only has one example of a UGS facility, Ngāti Ruanui recommended taking a cautious approach to UGS development, stating that UGS raises unique technical, environmental, cultural and long-term stewardship considerations that would be best addressed by development of bespoke regulations for UGS activities. They recommended that this should include clear expectations around monitoring, risk management, determining of cultural impacts, engagement with mana whenua and end-of-facility-life considerations.
42. Iwi in Taranaki have also noted that the Government is considering several potential use cases for UGS facilities, including developing regulatory frameworks for carbon, capture, utilisation and storage (CCUS) and natural and orange hydrogen. Iwi note the interconnectedness of these proposals and suggest that Government should consider them holistically.
43. Iwi raised broader concerns about the wider regulatory framework for underground gas storage activities but did not express opposition to allowing the royalty payment to be spread over time. Several iwi representatives noted that, because royalty revenue is not shared with iwi, the direct benefits or costs for iwi were limited.

## **Section 2: Assessing options to address the policy problem**

### **What criteria will be used to compare options with the status quo?**

44. The primary policy objective is to remove regulatory barriers that may be disincentivising the development of new UGS facilities to support New Zealand's energy security.
45. Consistent with this objective, this assessment places greater weight on whether options facilitate UGS development and less on maximising royalty revenue.

46. The following criteria have been used for assessing options for meeting the policy objective:

| Criteria                         | Description                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Effective</b>                 | Does the option support energy security by reducing barriers to the development of new UGS facilities?              |
| <b>Efficient</b>                 | Does the option achieve the objective at least cost, including compliance, administrative and implementation costs? |
| <b>Proportionality</b>           | Is the regulatory response proportionate to the scale of the problem?                                               |
| <b>Return of royalty revenue</b> | Does the option provide an appropriate return of royalty revenue to the Crown?                                      |

### What scope will options be considered within?

47. Options have been limited to changing the royalty regulations. The royalty framework for UGS is already set out in current regulations, including how determining what royalties are owed on upfront gas are to be assessed.

48. In addition, the Government is already taking other steps to support the development and operation of UGS facilities. This includes:

- adding investments to support the development of new UGS facilities into the scope of the Gas Security Fund
- improving permit processing timeframes to provide UGS developers with confidence that applications will be processed efficiently.<sup>6</sup>

49. As noted, the scope of feasible options considered in the RAS was expanded to include the option to completely remove the obligation to pay royalties on original gas. MBIE had previously disregarded this option during initial policy development but has since explored it under curtailed timeframes following the Minister's direction. This is the option that will be presented to Cabinet.

50. A full deregulation option has not been considered. Some controls are still required to ensure consistency of approach to royalties within the CMA framework.

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<sup>6</sup> See: [Our performance against permit processing timeframes - New Zealand Petroleum and Minerals](#)

## What options are being considered?

51. Following the new Ministerial direction, we have considered three options:

- Option One: Retaining the status quo
- Option Two: Removing the royalty obligation for original gas
- Option Three: Allowing the royalty burden to be spread over five years.

### Option One – Status Quo

52. Under the status quo, developers of UGS facilities are required to pay a royalty on the original gas in the reservoir within 30 days of the granting of a petroleum mining permit for the facility.

53. UGS development could still occur under this option. However, industry stakeholders have indicated that the upfront royalty payment negatively impacts the economics of UGS projects, though it is only one of the factors considered before a final investment decision. No UGS facilities have been developed since the Ahuroa facility, which was permitted in 2010.

54. Given recent and signalled changes in New Zealand's domestic gas system, there may be a stronger case for the development of UGS projects, as evidenced by at least four developers considering developing UGS projects.

55. However, UGS developments do involve substantial upfront capital costs. Converting a depleted gas reservoir to storage may require investment of tens to hundreds of millions of dollars – depending on the extent to which existing infrastructure can be reused, the overall capacity and integrity of the reservoir and the compression facilities that govern the rates that gas can be injected and extracted.

56. The cost associated with up-front royalties (no more than \$1.5 million) is only a small proportion of the total cost. But it may mean developers choose to direct investment to alternative capital projects or continue conventional production operations rather than converting depleted fields to UGS facilities.

See explanatory note below regarding the cost of up-front royalties

57. Given the increasing importance of UGS facilities to support energy security from a gas system perspective, continuing the status quo increases the risk that new UGS facilities will not come online.

58. The Government has already signalled its willingness to support investment in the development of new UGS facilities by expanding the scope of the Gas Security Fund to include gas storage. If any applications for gas storage projects to the Fund were successful, and the Crown still required an upfront royalty, the Crown would essentially be providing a developer with the money to pay the royalty. This could be mitigated through coordination with Kānoa.

This explanatory note, added on 9 September 2026, corrects a minor error identified in this RAS after Cabinet decisions.

The first sentence of paragraph 56 should read "The cost associated with up-front royalties (no more than [commercially sensitive] is only a small proportion of the total cost."

The original figure of \$1.5 million in paragraph 56 was an average value arrived at by dividing the estimated maximum total royalty value of \$6 million by the four operators known to be considering UGS developments (\$1.5 million each). However, as each development is different, the actual estimated royalty value differs from operator to operator. The corrected figure is the estimated royalty that would be owed under current settings by the operator with the largest volume of original gas. This figure is withheld due to commercial sensitivity.

## **Option Two – Removing the obligation to pay royalties on original gas for new UGS developments (Minister’s preferred option and partial deregulatory option)**

59. This option would involve amending Regulation 15 of the royalty regulations to remove the obligation to pay a royalty on original gas when developing a UGS facility. This would remove an upfront cost of development of new UGS facilities and improve project economics.
60. This option is a partial deregulation option, as it removes the regulatory requirement to pay a royalty. However, it would retain other aspects of the regulatory framework for UGS facilities, including obligations to determine the volume of original gas and other permitting requirements under the CMA. This includes, for example, use of an independent expert to determine the value of original gas, the level of cushion gas required to maintain operational pressure (a new practice) and the requirement to pay a royalty on any liquid condensate produced over a UGS facility’s life.
61. Original gas often forms part of the gas ‘cushion’ required to maintain sufficient reservoir pressure for gas storage operations. Original gas may be **greater or lesser** than the cushion gas needed. In cases where original gas has been insufficient to maintain operation pressure, other gas may have been or need to be injected for the cushion to be effective. Any original gas in excess of the volume required as cushion gas would remain subject to royalties.
62. While the requirement for an independent expert to determine the value of original gas is a cost that could also be removed (given the Crown would no longer require a royalty payment on original gas), we consider it should be retained to reduce the risk that an operator might ‘game the system’ by:
- injecting royalty-unpaid produced gas into a reservoir being considered for UGS *before* applying for a permit; to avoid paying royalties on the produced gas by claiming it is ‘original’ gas
  - converting a reservoir to a UGS facility where the reservoir holds higher volumes of original gas than is necessary to maintain pressure within the reservoir, in order to avoid paying royalties on the gas.
63. Any original gas that is not required for the cushion will either be extracted before a UGS permit is granted or be subject to a requirement that royalties on this amount should be paid when the permit is issued.
64. Removing the royalty obligation from only UGS developers may also be seen as raising fairness issues in relation to the developers of Ahuroa (who paid the royalty upfront) and treats UGS developers differently from conventional operators who are still obligated to pay royalties on gas they produce.

## **Option Three – Allowing the upfront royalty payment to be spread over five years**

65. This option would allow the royalty owed on original gas to be spread over five equal annual instalments, rather than requiring the royalty to be paid upfront as a lump sum.
66. A variety of factors, including permit length, estimated remaining field duration and conventional gas production profiles were considered by officials to inform the five-year timeframe and proposed linear payment structure. Five years most closely aligned with the

estimated time it would take to deplete the field with greatest gas reserves that is being considered for conversion to a UGS facility.

67. As with Option Two, other provisions in Regulation 15 would be retained, including the requirement for independent expert assessment of original gas volumes, and the requirement to pay a royalty on condensate as it is produced.
68. This option would reduce the upfront financial barrier to UGS developers by allowing them to spread the royalty costs over five years, rather than being required to pay it upfront within 30 days of the granting of the permit for UGS activities. There is a reduced risk of any 'gaming' of the model because operators would still ultimately pay for the gas during the time remaining until gas reserves are depleted.
69. For the purposes of our analysis, we assumed that the royalty would be paid in five equal instalments with no adjustment for the time value of money. An alternative option would be to apply a discount rate to recover the present value of royalties owing at the time the permit is given.
70. The Government has already signalled its willingness to support investment in the development of new UGS facilities by expanding the scope of the Gas Security Fund to include gas storage. If any applications for gas storage projects to the Fund were successful, and the Crown still required an upfront royalty, the Crown would essentially be providing a developer with the money to pay the royalty.
71. The collection of royalties on original gas is consistent with what was required of Ahuroa's developers. Allowing the payment to be spread over time also brings royalty payment arrangements more in line with those for conventional gas producers, where royalties are paid as gas is produced.

### **How do the options compare with the status quo?**

72. The table on the next page provides a qualitative assessment of how each option performs against the assessment criteria. This key is used to summarise the assessments:

- ++** much better than the status quo
- +** better than the status quo
- 0** about the same as the status quo
- worse than the status quo
- much worse than the status quo

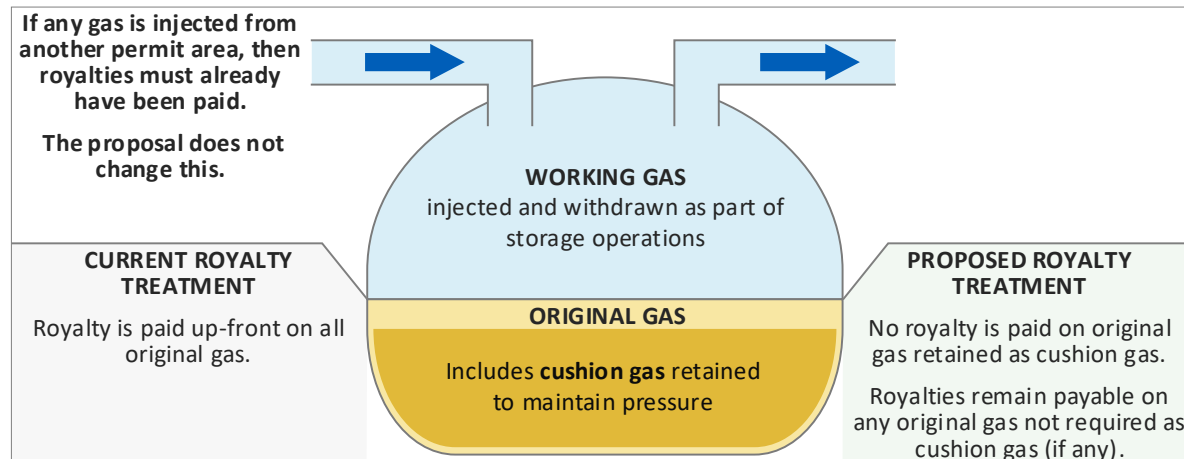
73. The effectiveness criterion has been weighted twice as heavily as the other criteria to reflect the primary policy objective of supporting energy security by reducing barriers to UGS development. To reflect this weighting, the effectiveness ratings have been doubled when determining the overall assessment.

**Table 1: Comparison of options against the assessment criteria**

|                                                                                                                                         | Weight | Option One<br>Status Quo                                                                                                                                                           | Option Two – Preferred Option<br>Removing the obligation to pay royalties on original gas for UGS developments                                                                                                                                                                                   | Option 3<br>Allowing the royalty to be spread over five years                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Effective</b><br>Does the option support energy security by reducing barriers to the development of new UGS facilities?              | 2      | <b>0</b><br>The upfront financial barrier to new UGS development persists and may continue to investment.                                                                          | ++<br>Entirely removes royalty obligation on original gas, and is therefore the option that provides the strongest incentive to new UGS development.                                                                                                                                             | +<br>Reduces the upfront royalty burden to developers of UGS facilities by allowing the royalty payment to be spread over five years.                        |
| <b>Efficient</b><br>Does the option achieve the objective at least cost, including compliance, administrative and implementation costs? | 1      | <b>0</b><br>This option is simple and efficient – a one-off payment at the time of receiving a permit.                                                                             | -<br>This will involve an extra step in assessing the amount required for cushion gas. But this should not require substantial additional effort by either the developer or the regulator.                                                                                                       | <b>0</b><br>This option is marginally less efficient, as the royalty would be collected as five payments over five years, rather than as a one-off lump sum. |
| <b>Proportionality</b><br>Is the regulatory response proportionate to the scale of the problem?                                         | 1      | <b>0</b><br>The upfront royalty obligation is negatively impacting UGS project economics and may be disincentivising development of facilities that could support energy security. | ++<br>Given the relatively small royalty revenue at stake compared with the substantial capital investment, removing the royalty obligation is considered a proportionate response if it materially improves the commercial viability of projects that strengthen New Zealand’s energy security. | +<br>Still allows for the collection of royalties but may be insufficient to encourage development of new facilities to support energy security.             |
| <b>Royalty recovery</b><br>Does the option provide an appropriate return of royalty revenue to the Crown?                               | 1      | <b>0</b><br>No loss in royalty revenue – royalty owed on original gas is collected as a lump sum when a permit is granted.                                                         | --<br>Estimated revenue reduction of \$5-6 million combined total royalty revenue across the known UGS proposals.                                                                                                                                                                                | -<br>Based on known proposals, the reduction in royalty revenue in net present terms is ~\$1 million.                                                        |

|                           | Weight | Option One<br>Status Quo | Option Two – Preferred Option<br>Removing the obligation to pay royalties on original gas for UGS developments                                                                                                                                              | Option 3<br>Allowing the royalty to be spread over five years                                                                                                                       |
|---------------------------|--------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Overall assessment</b> |        |                          | This is the <b>preferred option</b> because it performs most strongly across the criteria, including for the primary policy objective to incentivise development of new UGS facilities to support energy security as measured by the 'Effective' criterion. | This option did not perform as well against the 'Effective' criterion for the primary policy objective to incentivise development of new UGS facilities to support energy security. |

**Figure 3: Current and proposed royalty treatment of original gas in underground gas storage facilities**



## Section 3: Cost-benefit analysis

### What are the additional costs and benefits of the preferred option in the Cabinet paper?

74. The key benefits of the preferred option are that it increases the likelihood that new UGS facilities will be developed. This will provide greater energy security during a dry year. Increasing the energy available during a dry year may help reduce electricity prices.
75. While the benefits cannot be quantified with confidence, they have the potential to be significant if the proposal increases investment in underground gas storage and improves gas system flexibility. However, it is important to note that royalties on original gas are a relatively small proportion of the total costs of developing new UGS facilities. Therefore, it is not certain what direct effect this change will have on final investment decisions.
76. The identified implementation and compliance costs are low. Although the preferred option does represent a fiscal transfer from Crown royalty revenue back to the developer. On balance, the expected benefits of improved energy security are likely to outweigh the costs.

**Table 2: Cost-Benefit Analysis**

| Nature of the benefit/cost to New Zealand                                                        | Dollar value of impact (or quantified impact)                                                   | Scale of unquantifiable impact                                                                                                                                                                                                                               | Nature of impact – one-off or ongoing                                         | Source of evidence    |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------|
| <b>Additional benefits of the preferred option compared with taking no action</b>                |                                                                                                 |                                                                                                                                                                                                                                                              |                                                                               |                       |
| Increased likelihood that new UGS facilities will be developed                                   | Not quantified<br><i>The limitations of the analysis mean dollar values cannot be provided.</i> | <b>Medium</b> - may provide investment certainty for future UGS developers.<br>Other factors may influence a decision to proceed or not at FID.                                                                                                              | Ongoing – new facilities could be developed over time.                        | CMA permit for Ahuroa |
| Increased energy security and gas system flexibility resulting from additional storage capacity. | Not quantified                                                                                  | <b>High</b> – storage for use during times a dry year is of high value to New Zealand. Increased available energy helps reduce high forward prices and spot prices and reduces the need for demand response by industry that could otherwise be operational. | Ongoing for as long as gas is a reserve fuel for peak electricity generation. |                       |

| Nature of the benefit/cost to New Zealand                                                             | Dollar value of impact (or quantified impact) | Scale of unquantifiable impact                                                                                                                                                                      | Nature of impact – one-off or ongoing | Source of evidence |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------|
| Incentivises effective reuse of depleted gas fields, including support for alternative energy systems | Not quantified                                | <b>Medium</b> - reduces decommissioning costs if assets are redeployed for storage.<br>Provides capacity to store (or sequester) other types of gas in future, such as biogas and carbon emissions. | Ongoing                               |                    |
| <b>Additional costs of the preferred option compared with taking no action</b>                        |                                               |                                                                                                                                                                                                     |                                       |                    |
| Additional assessment costs                                                                           | Not quantified                                | <b>Low</b> –some addition work involved in preparing and assessing methodology for calculating cushion gas.<br>Adds modestly to permitting and assessment workload for the regulator.               | One-off with permit application       |                    |
| Monitoring of compliance                                                                              | Not quantified                                | <b>Very low</b> - managed as part of wider compliance and audit activities.                                                                                                                         | Ongoing                               |                    |
| <b>Net impacts compared with taking no action</b>                                                     |                                               |                                                                                                                                                                                                     |                                       |                    |
| <b>Total annual benefits minus costs</b>                                                              | Not quantified                                | High positive – the potential long-term energy security benefits are significant, while the identified compliance and administrative costs are low.                                                 |                                       |                    |
| <b>Total one-off benefits minus costs</b>                                                             | Not quantified                                | Not applicable – the principal benefits are ongoing.                                                                                                                                                |                                       |                    |

### Are the benefits of the preferred option in the Cabinet paper expected to exceed the costs?

77. Yes. The benefits of removing a small fiscal barrier to the development of UGS with the objective of increasing energy security during a dry year, outweighs the costs of administration of the policy.
78. However, it is important to note that royalties on original gas are a relatively small proportion of the total costs of developing new UGS facilities. Therefore, it is not certain what direct effect this change will have on final investment decisions.

### What are the impacts on different groups of the preferred option compared with taking no action?

79. The impact for industry is positive – the preferred option removes an upfront financial barrier and is likely to improve project economics so that developers are more likely to invest in UGS projects.
80. If the preferred option is implemented, the impact for the wider public has the potential to be significant. Dry year risk is a significant concern for both government and the New Zealand public. The Government has committed to building an LNG import terminal to address this, with an estimated cost of \$1 billion. We cannot quantify the economic value of UGS to New Zealand. However, it is likely to be more significant than the cost to the Crown of \$5-6 million in foregone royalty revenue.
81. If no action is taken, the upfront royalty cost may be significant enough to deter some UGS developments. If the number of UGS facilities does not increase, then there will be an increased risk of industrial gas users being forced to close and risk to electricity security of supply during a dry year. It is possible that one or more of the known UGS projects could be up and running in the next 12 – 18 months.

**Table 3: Distributional Analysis**

| Affected groups | How they are affected                                                       | Description of level of impact(s)                                                                                                                                                                                                                                                                | Source of evidence                                                                                             |
|-----------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Crown           | Reduced royalty revenue, but potentially improved energy security outcomes. | Foregone royalty revenue is estimated at around \$5-6 million across known proposals.<br>This is relatively small compared with the potential economic costs associated with disruption to energy supplies in a dry year (reduced GDP, increased cost of living, risk to viability of industry). | Estimate of royalties for known projects.<br>Reports on energy security, various analysis on dry year impacts. |
| UGS developers  | Improved project economics through reduced upfront costs.                   | Removes one cost from project development. Signals support from Crown for UGS                                                                                                                                                                                                                    | Gas working group report on barriers                                                                           |

|              |                                            |                                                                                                                                                                                                                                                                                                                                          |                                            |
|--------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|              |                                            | development (and ongoing use of gas).                                                                                                                                                                                                                                                                                                    | to UGS development. Consultation feedback. |
| Energy users | Increased energy security during dry year. | <p>If additional UGS facilities are developed, the supply of gas may be more reliable during periods of peak demand and dry years.</p> <p>Greater certainty will reduce forward and spot prices for electricity, industrial users may be able to continue operations during a dry year (rather than temporary shutdowns due to cost.</p> | 2024 energy crisis.                        |

## Conclusion

### Which option is the most effective, efficient, and proportionate response to the problem?

82. While the impacts cannot be quantified with confidence, Option 2 is expected to impose only low additional compliance costs. The potential benefits from increasing the likelihood of UGS development and improving energy security could be significant, particularly given the expected loss of flexibility currently provided by Methanex. On balance, the benefits are therefore likely to outweigh the costs.
83. We consider Option 2 – the proposal to remove upfront royalties on UGS projects – to be a **proportionate** response. The ongoing availability of gas is significant for New Zealand’s electricity system and industry, and underground storage of gas has become increasingly important as the gas and energy system evolves.
84. Option 2 is the most **effective** response. The requirement for an upfront royalty payment on original gas has been identified as a barrier to UGS development. Therefore, the wholesale removal of this requirement removes this as a barrier.
85. Option 2 could be seen as slightly less **efficient** than the status quo because it involves some additional assessment of the amount required as cushion gas. However, these costs are expected to be low and are not expected to materially affect the viability of UGS developments or create a significant burden for the regulator.
86. Given the Government has already signalled its willingness to support investment in the development of new UGS facilities by expanding the scope of the Gas Security Fund to include gas storage. If any applications for gas storage projects to the Fund were successful, and the Crown still required an upfront royalty, the Crown would essentially be providing a developer with the money to pay the royalty.
87. Overall Option 2 is the best option, given the high importance of gas for New Zealand, and the low number (but high strategic value) of UGS facilities likely to be developed.

## Section 4: Delivering an option

### What are the next steps for implementing the legislation?

88. Changes to Regulation 15 in the royalty regulations to remove the requirement to pay upfront royalties on original gas will be required to implement the preferred option.
89. Changes will be gazetted and communicated to stakeholders via the regulator.
90. New UGS permit applications will require an independent expert to determine:
  - the amount of original gas (as is current practice), and
  - the level of cushion gas required to maintain operational pressure (new practice).
91. Both of these assessments will involve a review of the methodology used by the applicant to calculate these volumes. It will not involve separate field work on site. Operators will need to have a robust estimate of the volume of gas required for the cushion to manage the facility. Therefore, the only additional work would involve presenting the methodology to MBIE and the independent expert they appoint.
92. The value of foregone royalties will be recorded for post-implementation assessment.

### How will the proposal be monitored, evaluated, and reviewed?

93. The number of new or amended permits for UGS facilities will be recorded and monitored to for an increase in volume.
94. The extent to which the new UGS facilities contribute to energy security by increasing the available PJs for dry year cover will be monitored.
95. The amount of foregone Crown royalties will be recorded.
96. Permitting requirements also require reporting, monitoring and consultation with affected iwi and hapū.
97. Consistent with good regulatory practice, MBIE intends to review the new royalty arrangements for UGS approximately five years after amended royalty regulations come into effect. This will allow assessment of the degree to which New Zealand's gas storage capacity has increased since implementation of the policy proposal.