

Implementing a ban on new fossil-fuel baseload electricity generation – summary of submissions

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Purpose

1. This report summarises key themes from the submissions received on the *Implementing a ban on new fossil-fuel baseload electricity generation* discussion document.

Background

2. In August 2023, the Ministry of Business, Innovation and Employment (MBIE) opened public consultation on the *Implementing a ban on new fossil-fuel baseload electricity generation* discussion document.
3. We received 11 written submissions on the discussion document. A full list of submitters is included in Annex One.
4. The discussion document explored approaches to the design and implementation of a ban on new fossil-fuel baseload electricity generation. The focus of the document was on whether any exemptions to the ban were necessary for public policy reasons, for example to maintain security of supply.
5. The discussion document was published as part of a package of consultation documents on New Zealand's energy transition – the *Gas Transition Plan Issues Paper*, the *Interim Hydrogen Roadmap*, *Measures for transition to an expanded and highly renewable electricity system* and *Developing a Regulatory Framework for Offshore Renewable Energy*. Summaries of submissions for the other consultations can be found on the MBIE website.
6. This document is a summary of the submissions MBIE received on *Implementing a ban on new fossil-fuel baseload electricity generation*, including some of the key themes and issues raised by submitters. It draws on the comments made by submitters but does not reflect every comment made by each submitter.

Overview of submissions

Key themes from submitters

7. In summary, submissions highlighted that:
 - there was a low likelihood of new fossil-fuel baseload electricity generation plants being built due to the cost competitiveness of renewable generation options
 - there was strong support to not have to apply for an exemption to build new fossil-fuel non-baseload generation plants i.e 'peakers'
 - most submitters generally agreed that all exemptions to the ban on new fossil-fuel baseload electricity generation considered in the discussion document should be incorporated, including replacement of an existing baseload fossil-fuelled electricity generator, use of blended (mix of fossil and non-fossil) fuels, co-generation plants and carbon capture, usage, and storage (CCUS).
 - submitters expressed concern about the unintended consequences that a ban could have on electricity security of supply.

Summary of submissions by theme

LOW LIKELIHOOD OF NEW FOSSIL-FUEL BASELOAD GENERATION BEING CONSTRUCTED

8. It was unanimously agreed that there is a low likelihood of new fossil-fuel baseload electricity generation plants being constructed. This is because fossil fuels are increasingly not cost-competitive for baseload generation due to high fuel costs and rising prices under the ETS.
9. Submitters believed a ban would have limited or no impact and would be unnecessarily costly.
10. A submitter identified that “legislating is not a costless option. In addition to Parliamentary and departmental costs, any legislation could risk unintended consequences.”
11. Further, under the ETS if a new baseload fossil fuel generation plant were constructed it would be viable even with carbon externality pricing, and progress towards net zero emissions through the fixed quantity cap under the ETS would remain on track regardless.
12. One submitter believed that a ban should be implemented despite the low likelihood that a fossil fuel baseload generation plant would be constructed to provide certainty that fossil fuels would continue to be phased out for baseload electricity generation.

MINIMISING IMPACTS ON NEW FOSSIL FUEL NON-BASELOAD GENERATION

13. Submitters agreed that the scope of the ban should be limited to avoid impacts on the construction of non-baseload fossil-fuel plants.
14. Non-baseload fossil-fuel plants play an important role in ensuring security of supply and smoothing the transition to net zero emissions.
15. Some submitters identified the continued need for construction of new fossil-fuel baseload plants. One submitter quantified the “need to build up to 320 MW of new fast-start peakers by 2038 to ensure the increasingly renewable electricity system can meet growing demand at peak times.” This is primarily gas-fired peakers.
16. Submitters identified difficulty in strictly distinguishing ‘baseload’ and ‘non-baseload’ generation when imposing a ban. Concerns were raised about the impact that uncertainty could have for potential investors.
17. A majority of submitters felt that construction of non-baseload plants should not require a Ministerial exemption to minimise barriers to their construction.
18. However, one submitter believed that requiring investors to apply for an exemption to construct non-baseload fossil fuel plants would ensure clarity and efficacy of the ban.

EXEMPTIONS AND THE SCOPE OF THE BAN

19. A majority of submitters agreed that all of the exemptions considered in the discussion document should be incorporated.

The size of new fossil-fuel baseload generation plant in scope of the ban

20. Limited submissions were received specifying the size of plant which should be in scope of the ban.

21. One submitter suggested the ban should cover all fossil fuel baseload generation irrespective of size. However, they suggested that exemption applications could be allowed.
22. Other submitters believed that difficulties in defining the scope of the ban were the result of unnecessary regulation.

Exemption for the replacement of existing baseload fossil-fuelled electricity generation with new fossil fuel baseload plant of a prescribed efficiency and emissions standard

23. Some submitters identified difficulty in designing an exemption for the replacement of an existing baseload fossil-fuelled electricity generator with another of a prescribed efficiency and emissions standard. Setting standards and distinguishing between replacement and refurbishment were seen as challenges.

Exemption for new baseload electricity generation plant that uses blended fuels

24. Limited submissions were received about blended fuels.
25. A few submitters identified the role of blended fuels as an important 'bridge' in the energy transition.
26. One submitter stated that there should not be an automatic exemption for blended fuels and that it should be established that "an exemption is in the national interest."

Exemption for new fossil-fuelled co-generation plants

27. Submitters generally favoured an exemption for co-generation plants as an efficient way to make use of process waste heat.
28. A gas supplier identified that "for many processes, there is currently no alternative to the use of fossil fuels for process heat. In these settings, co-generation of electricity from these industrial processes is a logical, economic and efficient way of increasing industrial efficiency by using waste heat."
29. One submitter stated that an exemption should only be granted where it is established to be in the "national interest."

Exemption for new fossil-fuel baseload electricity generation plant with carbon capture, usage and storage (CCUS)

30. Most submitters were in favour of an exemption for fossil-fuel baseload generation utilising CCUS technology.
31. A few submitters argued that focus should be on the overall goal of reaching net zero carbon emissions instead of 'preferred solutions' in reaching this goal.
32. For example, one submitter compared a natural gas fired baseload plant with CCUS, and a geothermal plant with CCUS, which would both have close to net zero emissions, but which would be treated differently under the ban without an exemption for CCUS.
33. Submitters were concerned not to shut out development of carbon-capture technologies prematurely, characterising this technology as a crucial part of the energy transition.
34. However, this appears inconsistent with the consensus that there is a low likelihood of new fossil-fuel baseload generators being constructed. It is difficult to see how development of CCUS technologies would be impacted.

IMPACTS ON SECURITY OF SUPPLY

35. Submitters felt that implementing the ban could have unintended impacts for security of supply.
36. New Zealand depends on hydroelectric generation for a large portion of its electricity supply, meaning security of supply is susceptible to 'dry year' risks.
37. An exemption for fossil-fuel non-baseload generation plants to operate in a baseload capacity in a security of supply event was seen as necessary.
38. Some submitters felt that banning construction of fossil fuel baseload generation would unnecessarily limit flexibility for the market to respond.
39. However, submitters generally acknowledged that an exemption for construction of new fossil-fuel baseload generation plants in security of supply of events was not practical because of the long-term planning and investment required.
40. One submitter felt that the ban would significantly disincentivise fossil gas field development. Some submitters noted that given the low likelihood of developing new baseload fossil-fuel plants the impact on fossil gas fuel development was unlikely to be significant.

OTHER COMMENTS

41. One submitter suggested that implementation of a ban could be staggered, banning coal baseload generation first as it has approximately double the emissions of natural gas.
42. Submitters generally agreed that legislation was the preferred option to implement the ban.

Annex One

List of submitters

Submitter	Type of organisation
Carbon and Energy Professionals New Zealand	Industry Association
Contact Energy	Generator-Retailer
Energy Resources Aotearoa	Industry Association
Environment & Conservation Organisations of NZ INC.	Non-government Organisation
Greymouth Gas	Upstream Developer
Meridian Energy	Generator-Retailer
National Energy Research Institute	Non-government Organisation
New Zealand Steel	Industrial
Nova Energy	Generator-Retailer
OMV	Upstream Developer
Toitū Envirocare	Energy Consultancy

Annex Two

Recap of questions

BACKGROUND

1. Do you agree that there is a low likelihood of new fossil-fuel baseload electricity generation plant being built? If not, why not?

DESIGN AND IMPLEMENTATION ISSUES

2. Do you agree that its preferable for investors looking to build a new fossil-fuel non-baseload generation plant not to have to apply for an exemption?
3. What size of new fossil-fuel baseload generation plant should be in scope of the ban?
4. Do you think that there should be an exemption for the replacement of existing baseload fossil-fuelled electricity generation with new fossil-fuel baseload plant of a prescribed efficiency and emissions standard?
5. Do you think that there should be an exemption for new baseload electricity generation plant that uses blended fuels (i.e., a mix of fossil-fuel and renewable fuel)?
6. Do you think that there should be an exemption for new fossil-fuelled co-generation plants?
7. Do you think there should be an exemption for new fossil-fuel baseload electricity generation plant with carbon capture, usage, and storage (CCUS)?
8. Do you agree that an exemption to relax restrictions on non-baseload fossil-fuel plant in a security of supply event is necessary?
9. Do you think there should be an exemption for the construction of new fossil-fuel baseload generation plants, based on security of supply reasons?
10. What impact do you think a ban on new fossil-fuel baseload electricity generation will have on fossil gas field development?
11. What other issues or problems do you see in the implementation of a legislative ban on new fossil-fuel baseload electricity generation?

