

Exemption application: Top Energy Part 6A

Draft decision paper

[Public Version/Redacted Version]

17 October 2023

Executive summary

Draft decision No. EA 333

Draft decision on exemption

The Electricity Authority Te Mana Hiko (Authority) seeks comments from interested parties on its draft decision on an application for an amendment to an exemption under section 11 of the Electricity Industry Act 2010 (Act). The exemption is sought from Part 6A of the Electricity Industry Participation Code 2010 (Code) which requires any person involved in a distributor and any person involved in a connected generator to comply, and ensure that their businesses comply, with the corporate separation and arm's length rules if a connected generator has a "total capacity" of more than 50MW of generation.

Applicant

Top Energy Limited, Te Puna Hihiko, (TEL), Ngāwhā Generation Limited (NGL), and senior management common to those participants.

Background

TEL (the distributor), NGL (a connected generator) and senior management common to both participants have an existing exemption (EA 003) from compliance with arms-length rules 9 and 10 in relation to geothermal generation of up to 75MW from Ngāwhā Springs Power Station (the existing Ngāwhā exemption).

Summary of application

TEL and NGL have applied for an amendment to the existing Ngāwhā exemption as TEL proposes to increase NGL's geothermal generation at Ngāwhā Springs Power Station (Ngāwhā Springs) by an additional 42MW and develop solar generation with a capacity of up to 10MW. TEL's application is for an exemption for TEL, NGL and senior management common to both participants from the requirement in Part 6A of the Code to comply with arm's-length rules 9 and 10.

Summary of draft decision:

The Authority's draft decision is to:

- a) decline the application from TEL and NGL for an exemption from the arm's-length rules in respect of the proposed solar generation, on the basis that Part 6A of the Code does not apply to non-rotating generation and the Authority does not have jurisdiction to consider this aspect of the application.
- b) grant the application in respect of geothermal generation for an amendment to the existing Ngāwhā exemption under section 11(4) of the Act for TEL and NGL, and dispensations under clause 6A.9(6) of the Code for the directors, the chief executive officer, the chief financial officer, and the general manager corporate services, (or

persons holding equivalent positions) from the requirement in clause 6A.3(2) to comply with arm's-length rules 9 and 10, subject to the following conditions:

- a. the exemption and dispensations apply in relation to the expansion of Ngāwhā Springs Power Station for geothermal generation up to a nameplate capacity of 117MW
- b. the dispensation from the requirement to comply with rule 10 only applies to the appointment of management to positions of material influence¹ over NGL or TEL
- c. TEL and NGL must not engage in retailing, as that term is defined in the Act, to any customer connected to TEL's distribution network
- d. the exemption and dispensations apply while TEL is wholly-owned by the Top Energy Consumer Trust
- e. the exemption and dispensations expire on 31 July 2052 or the day that any additional generation (other than generation installed for the purpose of providing network support) owned by TEL, NGL any of TEL's subsidiaries, or any "connected generators" as defined in clause 6A.3 in relation to TEL, is connected to TEL's network, whichever date is earlier
- f. TEL must comply with Part 6 and TEL and NGL must comply with all other arm's-length rules.

A copy of the draft gazette notice is attached as Appendix B.

Date of draft decision

3 November 2023.

Next steps

This is a draft decision, and we welcome feedback. We will consider all submissions before making our final decision. Submissions are due by 5pm on 24 November 2023. Please send any submissions to compliance@ea.govt.nz.

It is noted that the Authority is not required to consult on applications for exemptions or dispensations from Part 6A of the Code and it may not do so in the future. The Authority has decided to consult in this instance given it is the first time it has considered a dispensation for specified persons and an exemption from Part 6A.

The arm's-length rules were originally contained in Part 3 of the Act. The Act was amended by the Electricity Industry Amendment Act 2022 (the Amendment Act) and the relevant arms-length rules were moved from Part 3 of the Act to Part 6A of the Code in September 2022.

The Authority intends to make a final decision before the end of 2023.

¹ Section 7, Electricity Industry Act 2010 defines the meaning of "material influence".

Contents

Executive summary	2
1. Purpose	5
2. Summary	5
3. Background	6
4. TEL and NGL's exemption application	7
5. Part 6A does not apply to non-rotating generation	10
6. Legal framework for exemption from Part 6A	12
7. The analysis adopted by the Authority	14
8. Summary of Authority's analysis	15
9. Assessing the impact of each market: Competition	16
10. Applying the test to the facts: Reliability	19
11. Applying the test to the facts: Efficiency	20
12. Additional matters	21
13 The exemption meets the tests in the Act and Code	23
14 Comments sought	24
Appendices	24

1. Purpose

- 1.1. This paper sets out the Authority’s draft decision on an application by TEL and NGL for an exemption from arm’s-length rules 9 and 10 in Part 6A of the Code. Part 6A requires any person involved in a distributor and any person involved in a connected generator to comply, and to ensure that their businesses comply, with the corporate separation and arm’s length rules, if a connected generator has a “total capacity” of more than 50MW of generation. The Authority is seeking feedback from interested parties on the draft decision before it makes a final decision.
- 1.2. This is the first time the Authority has considered an amendment to an exemption under section 11(4) of the Act for TEL and NGL, and dispensations under clause 6A.9(6) of the Code for senior management.
- 1.3. The Authority notes any exemption application, including an amendment to, or revocation of, an existing exemption will be considered on its particular facts.

2. Summary

- 2.1. Part 6A of the Code requires distributors, connected generators, and any person involved in them to comply with the corporate separation and arm’s length rules, if a connected generator has a “total capacity” of more than 50MW of generation². The purpose of Part 6A is to promote competition in the electricity industry by restricting relationships between a distributor and a generator (or retailer) where those relationships may not otherwise be at arm’s-length³.
- 2.2. TEL (the distributor), NGL (a connected generator) and senior management common to both participants have an existing exemption from Part 3 of the Act (as applied in 2019) in relation to geothermal generation of up to 75MW from Ngāwhā Springs. The existing exemption enables TEL and NGL to share senior management positions which would otherwise not be permitted under arm’s length rules 9 and 10.
- 2.3. TEL and NGL have applied for an amendment to the existing exemption as TEL proposes to increase NGL’s geothermal generation at Ngāwhā Springs by an additional 42MW and develop solar generation with a capacity of up to 10MW.
- 2.4. TEL and NGL do not need to be (and cannot be) exempted from compliance with Part 6A in relation to their proposed solar generation. Part 6A does not apply to non-rotating generation such as solar and batteries because the definition of “total capacity” in the Act and the Code, which determines whether a generator is a “connected generator” for the purposes of Part 6A, only applies to rotating generation.
- 2.5. The Authority is considering a Code amendment to Part 6A of the Code to ensure it applies to all forms of generation (including non-rotating generation). The Authority intends to consult on any such amendment.

² Clause 6A.3, Part 6A, Electricity Industry Participation Code 2010.

³ Clause 6A.1, Part 6A, Electricity Industry Participation Code 2010.

- 2.6. The Authority has analysed how granting the application in respect of the additional 42MW of geothermal generation affects competition, reliability and efficiency in the relevant markets.
- 2.7. The Authority considers competition and reliability is either not affected or improved by the granting of the amendment and efficiency is improved by the granting of the amendment. Accordingly, the Authority considers the test in section 11(4) of the Act for TEL and NGL, and the test in clause 6A.9(6) of the Code for senior management, is met and an amendment is necessary or desirable for the purpose of achieving the Authority's objectives. The Authority's draft decision is to therefore grant the amendment to the existing Ngāwhā exemption on the conditions set out in the executive summary.

3. Background

Part 6A requirements under the Code

- 3.1. Clause 6A.3 of Part 6A of the Code requires distributors that also own generation connected to their network to comply with corporate separation and arm's-length rules if that generator has a "total capacity" of more than 50MW of generation. Connected generators, and any person involved in both a distributor or a connected generator, must also comply with the arms-length rules. The arm's-length rules require parties that are involved with each other and transact with each other to act as if they were related only by the transaction, act independently, and act in their own best interests.
- 3.2. NGL is a connected generator under clause 6A.3(3) as it has a "total capacity" of over 50MW.
- 3.3. The arm's-length rules were originally contained in Part 3 of the Act. The Act was amended by the Electricity Industry Amendment Act 2022 (the Amendment Act) and the relevant arms-length rules were moved from Part 3 of the Act to Part 6A of the Code in September 2022.
- 3.4. A new dispensation regime (modelled on section 11 of the Act) was introduced into the Code by way of urgent amendment as clause 6A.9, to provide for dispensations for specified persons from Part 6A, as section 11 of the Act only allows the Authority to exempt a participant from its obligations.

TEL and NGL's existing exemptions

- 3.5. TEL is a distributor and is owned by Top Energy Consumer Trust (TECT) on behalf of approximately 34,000 consumers.⁴ NGL is a wholly owned subsidiary of TEL. NGL owns geothermal generating plant at Ngāwhā Springs which is connected to TEL's network.
- 3.6. TEL, NGL and senior management common to both participants have two existing exemptions, which were granted under section 90 of the Act, exempting them from compliance with arms-length rules 9 and 10:

⁴ [Top Energy Annual Report 2022/23](#)

- (a) **2021 Gensets Exemption:** an exemption was granted for 17.87MW of diesel/biodiesel generation installed at Taipā, Bennetts Road, Kaitāia, Kaitāia Depot, Ōmanaia, and Pukenui, which expires on the day additional generation is purchased or otherwise obtained by TEL or 30 October 2026, whichever occurs first. It is also subject to conditions requiring a registration of interests (ROI) and tender (RFP) process if it seeks a further exemption. In TEL’s application, TEL sought confirmation that this exemption would not be impacted. Previously there was a 2020 exemption granted for 17.87 MW for these gensets for 365 days to give sufficient time for alternatives to gensets being considered and to run an ROI and RFP process before the 2021 exemption was granted.
- (b) **Existing Ngāwhā exemption:** a previous exemption was granted under s 90 of the Act from the corporate separation and arm’s-length rules for generation above 50MW; in 2017 for up to 65MW with a ten-year term; in 2019 it was amended up to 75MW for up to 35 years to align with the relevant resource consents (EA003).

- 3.7. The Authority’s view is that this exemption application only relates to the existing Ngāwhā exemption. The 2021 Gensets exemption is separate to the current request for an amendment to the existing Ngāwhā exemption. The 2021 Gensets exemption remains appropriate and expires on the day that additional generation is purchased or otherwise obtained by Top Energy or 30 October 2026. The Gensets exemption deals with back up network services. If the amendment to the existing Ngāwhā exemption is granted, and additional geothermal generation is obtained by TEL, the Authority considers this will not trigger the expiry condition on the Gensets exemption⁵.
- 3.8. TEL has confirmed in its application that this will be the last time they seek an amendment to the existing Ngāwhā exemption as the current requested amendment fully utilises the geothermal resource and consents at Ngāwhā Springs.

4. TEL and NGL’s exemption application

- 4.1. TEL is considering the development of further generation capacity through NGL. Specifically, TEL proposes to increase NGL’s geothermal generation at Ngāwhā Springs by an additional 42MW and to develop solar generation with a capacity of up to 10MW. This would require an amendment to the existing Ngāwhā exemption to increase the maximum allowable generating capacity from 75MW to 117MW for geothermal and 127MW including 10MW of solar.
- 4.2. TEL’s application (to which NGL refers in its own exemption application) is for an exemption from the requirement to comply with arm’s-length rules 9 and 10 given its proposed increase in generating capacity. Rule 9 is the separate management rule which requires corporate separation of distributors and connected generators (or retailers). Rule 10 prevents directors and managers from being placed under certain

⁵ This is because additional generation in the context of the Gensets exemption refers to additional generation obtained solely for network support.

obligations⁶. TEL acknowledges in its application that it is required to comply with all other arm's-length rules.

- 4.3. The existing Ngāwhā exemption was granted with certain conditions. TEL has stated in its application that it would be appropriate for an amended exemption to be subject to those same conditions. The conditions on the existing Ngāwhā exemption are:
- (a) This exemption applies in relation to the expansion of Ngāwhā Springs up to a nameplate capacity of 75 MW.
 - (b) The exemption from the requirement to comply with rule 10 only applies to the appointment of the persons identified in [this exemption] to positions of material influence over NGL
 - (c) TEL and NGL must not engage in retailing, as that term is defined in the Act, to any customer connected to Top Energy's distribution network.
 - (d) The exemption applies until the close of 31 July 2052.
- 4.4. The 2021 Gensets exemption means, if the amendment to the existing Ngāwhā exemption is granted, and TEL proceeds with its proposed development of both geothermal and solar, the total generating capacity connected to TEL's network would be approximately 145MW.
- 4.5. TEL holds resource consents in respect of extraction and reinjection of geothermal fluid from Ngāwhā Springs. The consents permit the generation of an additional 42MW so the proposed expansion will exhaust the limits within the consents. TEL states in its application that it will incur more than [REDACTED] **Confidential Information** for the construction and development of this additional generation capacity. It is not willing to incur this cost without sufficient regulatory certainty in respect of its obligations under Part 6A.
- 4.6. TEL notes in its application that three of the four existing generation plants at Ngāwhā Springs have achieved carbon zero status. TEL expects its fourth plant to achieve carbon zero status by the end of 2023. NGL has gone from being one of the highest carbon emitting geothermal facilities in New Zealand to one of the lowest.
- 4.7. A copy of a public version of TEL's exemption application and NGL's exemption application is attached as Appendix A.

TEL considers granting the amendment to the exemption will better enable the Authority to achieve its statutory objective

- 4.8. TEL's position is that there will be a positive effect on competition if the amendment to the existing exemption is granted. It says that the competition analysis undertaken in respect of the existing exemption shows that there are no adverse competition consequences arising from the common management of TEL and NGL. It says that, in fact, there are small competition gains to be made from the granting of the exemption, particularly in the context of the encouragement and ability of NGL to provide smaller retailers over-the-counter hedge options which are currently only otherwise available from gentailers. If smaller retailers are better able to participate in

⁶ Rules 9 and 10, Schedule 6A.1, Part 6A, Electricity Industry Participation Code 2010.

the hedge market, TEL says that retailers will be encouraged to provide better retail solutions in the Far North and Northland.

- 4.9. In addition to the effect on competition, TEL says that granting the exemption will better enable the Authority to promote reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. The proposed expansion of geothermal generation is baseload supply as opposed to interruptible load like wind and solar. If the exemption was granted, TEL says that the additional baseload generation provides greater reliability and security of supply without requiring any investment in the connection of the capacity to the national grid. TEL considers there to be a real risk that a supply failure south of Auckland could result in a complete failure of supply further north, but additional baseload geothermal generation will help mitigate this risk.
- 4.10. TEL considers that the Authority's efficiency objective is also better served if the exemption is granted. It believes it is more efficient for the existing management structures in TEL and NGL to operate the entire generation capacity at Ngāwhā Springs because no capital or transaction costs are incurred in doing so.

TEL has considered alternative solutions to the requested amendment to the existing exemption

- 4.11. TEL has explored three alternative solutions to the requested amendment to the existing exemption.

First alternative solution – direct connection of generation to the national grid

- 4.12. TEL has considered whether it can connect all of NGL's generation to the national grid. This is because distributors can be involved in generators that have a total capacity of up to 250MW if it is directly connected to the national grid⁷. TEL's existing generation and proposed further generation would fall under the 250MW limit and an exemption and dispensations from arm's length rules 9 and 10 would not be required.
- 4.13. TEL considers this is not a viable alternative solution. TEL says, in summary:
- (a) The costs are prohibitive. Transpower has estimated that the additional connection assets required will cost in the vicinity of ██████████ **Confidential Information**. NGL will also be required to pay ongoing transmission charges as a result of the connection, estimated to be between ██████████ **Confidential Information** per annum in real terms.
 - (b) These costs will be indirectly passed from NGL to TEL in the form of reduced dividends which will reduce the free cashflows that TEL could pass on to TECT to return to its Far North consumers.
 - (c) Requiring the generation to be directly connected to the national grid will cause significant delays to TEL/NGL's proposed expansion of its generation if it decides to proceed with the expansion.
 - (d) Transpower has advised that its current workload means that it won't be able to start scoping the investigation for its consultants for another 7 months, with the

⁷ Section 73, Electricity Industry Act 2010

investigation and selection of the preferred option unlikely to be completed before the end of 2024.

Second alternative solution – compliance with the arm’s-length rules

4.14. TEL’s second alternative solution to its exemption application is the adoption of full corporate and management structure separation for both TEL and NGL. TEL says that the costs of doing so are in excess of \$1.5M each year⁸. TEL notes that in addition to the increased cost, attracting suitably qualified staff to the area is very challenging. TEL again highlights that declining the amendment to the existing exemption will inevitably result in a lower dividend from NGL. This results in a reduced cash flow for TEL which would otherwise be passed onto TECT for the benefit of its beneficiaries.

Third alternative solution – sale of NGL or NGL’s generation assets

4.15. The third alternative solution TEL addresses in its application is the potential sale of NGL or NGL’s generation assets. TEL says that this solution would not be consistent with the Authority’s statutory objectives. It will not change the electricity prices for the generation. TEL’s view is that the sale of the generation assets will reduce TEL’s cashflows from its investment in NGL. TEL says that a sale would mean that it has no ability to absorb transmission charge increases. Transpower charges increased by 205% from 1 April 2023. Despite this, TEL did not pass on the increase in charges to its consumers. TEL has reduced its charges by 23% in the last four years. TEL says that there is a substantial cost benefit for consumers through the ownership and control of NGL’s generation for Far North.

5. Part 6A does not apply to non-rotating generation

5.1. The Authority considers it does not currently have jurisdiction to consider TEL’s exemption application in respect of its proposed development of solar generation. This is because the Authority considers clause 6A.3 of the Code does not apply to non-rotating generation such as solar because of the definitions contained within the Code and the Act.

5.2. Part 6A of the Code applies to distributors and “connected generators”. Clause 6A.3 requires every person who is involved in a distributor and every person who is involved in a “connected generator”, to comply with the arm’s-length rules. A “connected generator” in relation to a distributor is defined in clause 6A.3 as a generator that has a “total capacity” of more than 50MW of generation that is connected to any of the distributor’s networks.

5.3. Clause 6A.2 defines “total capacity” as having the meaning given in section 73(3) of the Act. 6.7.

Section 73(3) of the Act states (emphasis added):

In this section,-

⁸ TEL’s exemption application estimates these costs at \$1.3M, however in further correspondence with the Authority TEL has provided an updated estimate of \$1.5M.

nameplate means the full load continuous rating of a generating plant under specific conditions as designated by its manufacturer and measured in megawatts in accordance with International Electrotechnical Commission Standard 60034-1 or any successor to that standard or any recognised equivalent standard.

Total capacity means the total nominal capacity of a generator in a financial year (determined according to the nameplates of all the generator's generating plants)

- 5.4. Taken together, it is not possible to determine the “total capacity” of a generator’s generating plants without determining their “nameplates”, and “nameplate” is the “full load continuous rating” determined in accordance with the IEC Standard 60034-1, or any successor to that standard, or any recognised equivalent standard.
- 5.5. IEC standard 60034-1 defines the “full load continuous rating” referred to under the Act as the rating at which the machine can be operated for an unlimited period, while complying with the requirements of this standard. The equivalent IEC standards for non-rotating generators such as batteries, do not contain a MW rating equivalent to the “full load continuous rating” required by section 73 of the Act⁹. This is because batteries and solar are not capable of running “continuously” at a constant load for an unlimited period of time.
- 5.6. In light of the above, the Authority position is that:
- (a) TEL’s proposed development of solar generation falls outside the definition of “total capacity” in the Act because that definition is limited to rotating generation, and solar is non-rotating generation
 - (b) as such the proposed solar generation does not fall within the definition of a “connected generator” in clause 6A.3(3) of the Code as the “total capacity” limits do not apply
 - (c) for this reason, clause 6A.3 does not apply to TEL, NGL or any involved person, (or to any other distributor involved in non-rotating generation) and so TEL does not need to be (and could not be) exempted.

The Authority is considering steps to ensure that the arm’s length rules are appropriate to new technologies

- 5.7. The Authority is considering progressing a Code amendment to Part 6A of the Code to ensure that Part 6A applies to all types of generation. The Authority intends to consult on any such amendment in late 2023 or early 2024. This appears to be a case of regulation not keeping pace with technology and industry evolution and why last year these provisions from the Act were moved into the Code. The intent was to provide for more flexible and responsive regulation in response to a rapidly evolving electricity system¹⁰. A Code amendment may be appropriate to ensure that the Code is fit-for-purpose for newer technologies.

⁹ Refer International Electrotechnical Commission Standard 62933-21 for batteries.

¹⁰ ¹⁰ Cabinet Paper (February 2020): [Progressing the Electricity Price Review's recommendations \(mbie.govt.nz\)](https://www.mbie.govt.nz/progressing-the-electricity-price-review/s-recommendations)

- 5.8. In light of the above, the Authority has only assessed TEL's and NGL's exemption application in respect of its proposed expansion of its geothermal generation at Ngāwhā Springs.

6. Legal framework for exemption from Part 6A

The Amendment Act 2022 and the effect on the arm's length rules and exemptions

- 6.1. As noted above, the provisions relating to corporate separation and the arm's-length rules were previously contained in Part 3 of the Act and were subsequently moved to Part 6A of the Code by the Amendment Act 2022.
- 6.2. Clause 6A.3(2) of the Code requires every person involved in a distributor, and every person who is involved in a connected generator, to comply, and ensure that the person's businesses comply, with the arm's length rules. Therefore TEL, NGL and senior management common to both require either an exemption (for participants) or dispensations (for individuals) from this requirement for arm's-length rules 9 and 10.
- 6.3. Previously, exemptions to the arm's-length rules were granted under section 90 of the Act, which allowed exemptions for both participants and individuals. However, when the arm's-length rules were moved to Part 6A of the Code, section 90 ceased to apply to the arm's-length rules. Instead, section 11 now applies to exemptions and to variations to existing exemptions previously granted under section 90.
- 6.4. The Authority subsequently identified the issue that section 11 applies only to participants and not individuals, yet individuals who are not industry participants but involved in two classes of participants may be subject to the arm's-length rules¹¹. It therefore introduced, by way of an urgent Code amendment, clause 6A.9 of the Code, which allows the Authority to grant dispensations exempting specified persons from compliance with Part 6A. Clause 6A.9 came into effect on 31 August 2023. A permanent Code amendment is being consulted on as part of the Authority's Code Review Programme Number 5.
- 6.5. By virtue of the transitional provisions in the Amendment Act, the existing Ngāwhā exemption must be treated as an exemption made under section 11 of the Act. The Authority has treated the existing Ngāwhā exemption for specified persons as effectively equivalent to an existing dispensation under clause 6A.9. In light of this, TEL's exemption application has been considered as an amendment under section 11(4) of the Act for TEL and NGL and as an amendment to an existing dispensation for senior management under clause 6A.9(6) of the Code.
- 6.6. It is noted, however, that section 11 would ordinarily not apply to individuals, and it is only by virtue of the deeming provisions that the senior management hold an existing exemption under section 11. Given the potential ambiguities here the Authority has considered the test under clause 6A.9(3) for a new dispensation and would have reached the same conclusion as it did under clause 6A.9(6) for an amendment. That

¹¹ Senior management personnel common across both TEL and NGL would constitute specified persons for the purposes of section 32 of the Act, being persons (other than industry participants) who are involved in two classes of participant that are subject regulation under section 32(3).

is, the Authority considers the test for granting a new dispensation and for granting an amendment to an existing dispensation, are both met.

Section 11 allows the Authority to grant and amend exemptions from the Code and relates to competition, reliability and efficiency

- 6.7. The Authority can exempt a participant from compliance with the Code, including Part 6A, and amend an existing Code exemption, under section 11 of the Act.
- 6.8. Section 90 of the Act, which allows the Authority to grant exemptions from section 73 of the Act (ownership separation) and previously applied to exemptions from the arm's-length rules, is focussed only on competition. The purpose of Part 6A, given its history, is to promote competition in the electricity industry by restricting relationships between a distributor and a generator or a retailer, where those relationships may not otherwise be at arm's-length¹².
- 6.9. In previous applications under section 90, prior to the Amendment Act 2022, including the existing Ngāwhā exemption, the Authority accordingly focused on the effect on competition when considering whether or not to grant an exemption.
- 6.10. In contrast with section 90, however, section 11(4) of the Code allows the Authority to amend an existing exemption if it is necessary or desirable for the purpose of achieving the Authority's objectives in section 15. The test for amendment to an existing dispensation for a "specified person" under clause 6A.9(6) is the same as under section 11(4). The Authority has considered its main objective under s15(1) – to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.
- 6.11. The Authority considers the additional objective in section 15(2) "*to protect the interests of domestic and small business consumers in relation to the supply of electricity to those consumers*" does not apply in this instance because there are no direct dealings between TEL or NGL and small consumers¹³. Nevertheless, the Authority has included in this paper TEL's assessment of the potential implications for consumers if TEL's exemption application was granted.

The Authority can impose conditions

- 6.12. Section 11(3) of the Act provides that the Authority may grant an exemption on any terms and conditions that it reasonably considers necessary. Under cl 6A.9(5) of the Code, the Authority may also grant a dispensation on any terms and conditions that it reasonably considers are necessary.
- 6.13. The existing Ngāwhā exemption for TEL, NGL and senior management contain a number of conditions.
- 6.14. The Authority considers specific conditions may be imposed on, or be amended for, an exemption or dispensation to address competition concerns that are identified in

¹² Clause 6A.1, Part 6A, Electricity Industry Participation Code 2010.

¹³ Section 15(3) *The additional objective applies only to the Authority's activities in relation to the dealings of industry participants with domestic consumers and small business consumers.*

the Authority's analysis, where those conditions allow the Authority to be satisfied the statutory criteria and the purpose of Part 6A of the Code are met.

7. The analysis adopted by the Authority

The question is: How will granting an exemption to arm's-length rules 9 and 10 affect competition, reliability and efficiency in the relevant markets?

- 7.1. To answer the question, we require:
- (a) A factual and a counterfactual scenario
 - (b) The relevant markets
 - (c) To make a judgement about the state of competition, reliability and efficiency under each scenario in each market.
- 7.2. For this exemption application, we use the same factual and counterfactual scenarios as we did in the 2017 application decision paper as well as an additional counterfactual, which we discuss below. For clarity, we refer to the 2017 counterfactual as counterfactual-1 and the additional counterfactual as counterfactual-2.

We use the same factual and counterfactual scenarios as we did when we assessed the 2017 application

- 7.3. The 2017 application decision paper used one counterfactual, where NGL will expand its geothermal generation at Ngāwhā regardless of whether the exemption is granted (counterfactual-1).
- 7.4. This means that our factual is distinguished from counterfactual-1 only by different management arrangements:
- (a) In the factual, an exemption is granted and TEL and NGL would share the managers listed by position in the exemption across the two companies
 - (b) In the counterfactual an exemption is not granted and TEL and NGL would operate under corporate separation.
- 7.5. Consistent with the 2017 application decision paper, under both the factual and counterfactual-1:
- (a) NGL (and therefore generation from Ngāwhā Springs resource) would continue to be wholly owned by TEL
 - (b) NGL's output would mostly be hedged in the forward markets
 - (c) NGL would remain connected to TEL's distribution network
 - (d) TEL and NGL would comply with the arm's-length rules (including rules 9 and 10) in the Code.

We need to use an additional counterfactual

- 7.6. For this exemption application we have developed a further counterfactual where the exemption is not granted and NGL does not expand generation at Ngāwhā (counterfactual-2). We are using this counterfactual because NGL's business case development is pending a decision on the exemption. Without this business case we

are unable to make a judgement on the economics of the expansion with and without the exemption.

7.7. Under counterfactual-2

- (a) NGL’s generation at Ngāwhā is not expanded
- (b) TEL and NGL would share the managers listed by position in the exemption across the two companies
- (c) NGL (and therefore generation from Ngāwhā Springs resource) would continue to be wholly owned by TEL
- (d) NGL’s output would mostly be hedged in the forward markets
- (e) NGL would remain connected to TEL’s distribution network
- (f) TEL’s and NGL’s existing exemption without amendment remains in place (i.e. TEL and NGL would not comply with arm’s length rules 9 and 10 in respect of their existing geothermal generation).

The relevant markets

7.8. The 2017 application decision paper listed the relevant markets:

- (a) network services market
- (b) national wholesale market
- (c) local wholesale market.

7.9. The 2017 application decision paper assessed the local retail market as irrelevant. The existing exemption is conditional on TEL not retailing, the most likely pathway it could affect retail competition. Consequently, we do not consider the retail market is relevant to this application, although we do consider downstream retail market competition benefits from increased wholesale competition below.

8. Summary of Authority’s analysis

	Factual	Counterfactual-1	Counterfactual-2
	Amendment granted and Ngāwhā Spring expanded	Amendment not granted and Ngāwhā Springs expanded	Amendment not granted, existing exemption remains, and Ngāwhā Springs not expanded
Network services market	Not relevant	Not relevant	Not relevant
Over the counter forward market	Increased competition	Increased competition	
Retail market	Increased competition	Increased competition	
Spot market	No impact	No impact	

Generation market	TEL supportive of competing generation	TEL supportive of competing generation	TEL supportive of competing generation
First mover advantage	Likely none	Likely none	
Reliability	Improved	Improved	
Efficiency	Gain from avoided compliance costs and high transmission utilisation	Gain from high transmission utilisation	Foregone reliability and competition benefits
Cross subsidisation	Commerce Commission rules ¹⁴ make cross subsidies unlikely	Commerce Commission rules make cross subsidies unlikely	Commerce Commission rules make cross subsidies unlikely

9. Assessing the impact of each market: Competition

How will granting an exemption to arm's-length rules 9 and 10 affect competition in the network services market?

- 9.1. Under the factual, counterfactual-1 and counterfactual-2, there is no impact on the network services market.
- 9.2. Following the 2017 application the Authority considers the requested exemption will have no effect on competition in the market for network support services. This is true regardless of the management and governance arrangements affected by the exemption application.

How will granting an exemption to arm's-length rules 9 and 10 affect competition in the national or local wholesale market?

- 9.3. NGL's generation at Ngāwhā Springs will provide benefits through a more competitive over-the-counter (OTC) forward market and through this, downstream benefits in the retail market. These benefits occur under the factual and counterfactual-1, but not counterfactual-2.
- 9.4. NGL's generation at Ngāwhā Springs is unlikely to materially affect the national spot price under the factual or either counterfactual due to the likely offer behaviour of a geothermal station that has sold its output through the OTC market.
- 9.5. The application suggests that NGL will sell the incremental output as forward contracts as this avoids the risk of spot market exposure. This has been its practice

¹⁴ The Commerce Commission regulates the price and quality of distribution company services under Part 4 of the Commerce Act. TEL is subject to default price path regulation.

to date and is common practice for independent generators. We have no reason to believe that this will not be NGL's practice in the future. This will increase competition in the OTC forward market.

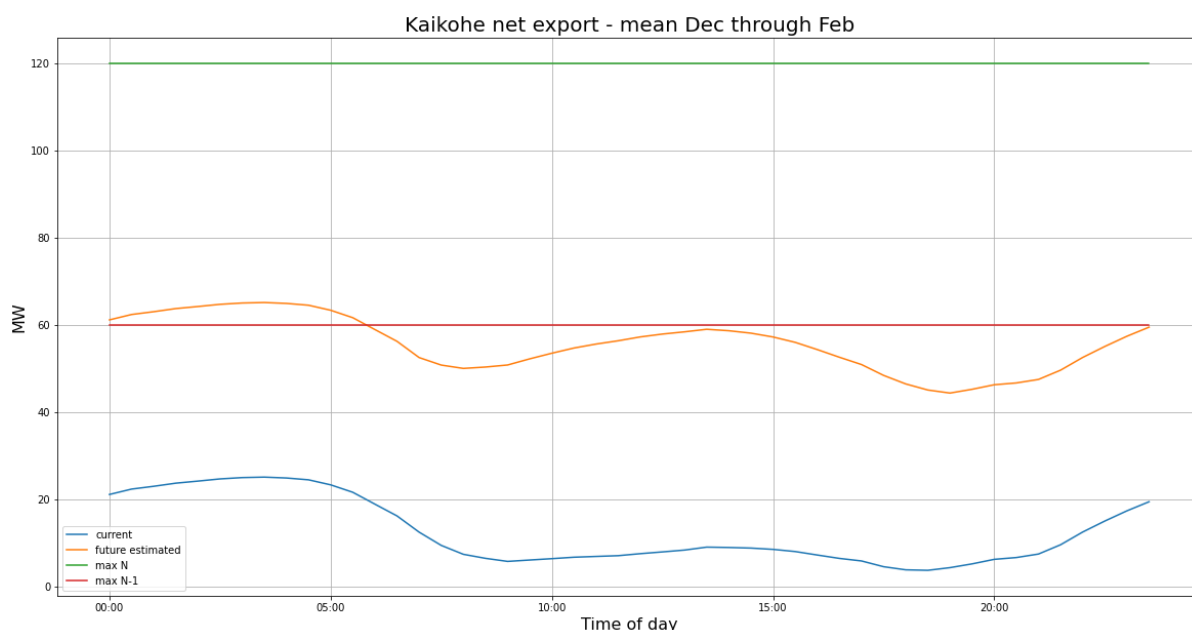
- 9.6. The OTC market is an important market for smaller retailers. Increased OTC competition could well increase competition in the retail electricity market by enabling independent retailers to more effectively compete against vertically integrated retailers.
- 9.7. This is likely to be the case under our factual and counterfactual-1 scenarios.
- 9.8. Following the 2017 application decision paper, it is unlikely that NGL's generation at Ngāwhā, or any geothermal, will materially affect competition in the spot market due to the need for these plants to run at a steady output, and in NGL's case, selling its output as forward contracts. It is common for geothermal generation to offer at \$0.01, or purchase must run rights and offer at \$0.00. The increased in low priced offers at KOE1101 may lower spot prices at the margin, but this is unlikely to be material.
- 9.9. Regardless of the management arrangements affected by the exemption application the constant output and low offer prices make it unlikely that NGL will affect competition in the national spot market.
- 9.10. Analysis of the spot price at KOE1101 and OTA2201 shows that for 2023 to date, the correlation between spot prices at these two locations is 0.999. This suggests two things, firstly that there is not local spot market. Secondly the OTC and retail market benefits under counterfactual-2, set out above, extend at least to the Auckland market. This is because a purchaser with load at an Auckland node can be reasonably assured that a hedge at KOE1101 will cover its risk, and a generator at KOE1101 can be reasonably assured that it can cover a hedge sold at an Auckland node.

Is there a first mover advantage that accrues to TEL because of an exemption to arm's-length rules 9 and 10?

- 9.11. The expansion of geothermal generation from Ngāwhā Springs occurs under the factual and counterfactual-1. The timing of the expansion might change due to the time or cost of implementing corporate separation of TEL and NGL. Granting the exemption to the arms-length rules therefore might confer an advantage to NGL relative to other prospective generation projects simply due to the timing of the generation investment.
- 9.12. However, under counterfactual-1, this advantage is small as the project doesn't depend on the exemption application being successful. This suggests that any competitive advantage is small.
- 9.13. There are three solar generator developers that have signed up to TEL's connection agreement suggesting that neither the timing nor the magnitude of the proposed expansion is proving to be a disincentive for generation investment. Note that the consent for the expansion was granted in 2015.
- 9.14. There is obviously no first mover advantage under counterfactual-2.

How will granting an exemption to arm's-length rules 9 and 10 affect access to the network of competing generation?

- 9.15. The existing exemption from the arm-length rules has not resulted in TEL discouraging competing generation. Rather, the additional solar generation connected to TEL's network is evidence that TEL will not use the proposed exemption to the arms-length rules to behave in an anticompetitive way. It is noted that on a per ICP basis, TEL has the second highest solar generation of any distributor.
- 9.16. TEL is working to encourage solar development in its area by developing a generation run back scheme to double the export capacity out of TELs area and ensuring that connected distributed generators are aware of the order under which it will curtail generation for security reasons. There is currently 67MW of large-scale solar generation that has signed connection agreements with TEL, and 10MW of residential solar.
- 9.17. The proposed expansion of geothermal generation from Ngāwhā Springs resource will mean that TEL's area will be exporting even at peak winter demand. There is substantial interest in solar development in TEL's area with three developments having signed the connection agreement and one nearing completion. This raises the question of network congestion and the ability to export electricity south from TEL's area. This is particularly true for solar generation that has a distinct peak.
- 9.18. TEL is in the process of developing a generation run back scheme to allow the two Kaikohe (KOE) – Maungatapere (MPE) 110 kV circuits to be run at N security when necessary. This will effectively double the export capacity out of TEL's area. The existing line capacity (without runback) is 63MW. The run back provides a further 57MW capacity. In total this provides 120MW.
- 9.19. This run back scheme is illustrated in the chart below which shows net export capacity at N-1 and N security during summer months when solar generation is at its maximum. This means that total generation less load can be as much as 120MW. The current line shows export from TEL's area peaks at around 4am at just over 20MW. The future estimated line simply adds the capacity of the proposed NGL expansion at Ngāwhā onto the current export. This line shows that during the day when solar is generating, the proposed expanded NGL does not require the runback scheme. However, with proposed peak solar generation of 67MW added to TEL's network plus 76MW of expanded summer geothermal minus load of 28MW gives 115MW, and the runback scheme is clearly required. (Note: geothermal summer output is approximately 15% lower than winter maximum output).



- 9.20. All distributed generators, including NGL, sign a connection agreement and agree to the relevant policies which include the Generation Congestion Management policy. This policy dictates the order that TEL can curtail generation. This order is based on network operational criteria and is aimed at maintaining system stability and power quality, and meeting the requirements of the system operator as the whole network is connected to the Kaikohe GXP.

The incentive to act to discourage competing generation has existed since Ngāwhā was granted consent, and TEL has acted to encourage distributed generators

- 9.21. Competing generation has been encouraged under the existing management and governance arrangements, and there is no reason to expect this to change.
- 9.22. The consent for NGL was granted in 2015. The next stage of development is conditional on the previous stage being operated for three years so that the sustainable use of the reservoir can be monitored and assessed.
- 9.23. Since this time TEL has had the incentive to discourage entry of competing generation because competing generation could use the scarce transmission capacity and make the NGL expansion at Ngāwhā unviable regardless of the consent conditions.
- 9.24. As set out above, the opposite has happened under the existing management and governance arrangements. This provides some assurance that these management and governance arrangements are not affecting competition in a negative way.

10. Applying the test to the facts: Reliability

How will granting an exemption to arm’s-length rules 9 and 10 affect reliability?

- 10.1. The resilience and reliability benefits derive from the increase in generating capacity at Ngāwhā Springs. So, they occur regardless in both the factual and the counterfactual-1. However, they do not occur under counterfactual-2.

- 10.2. The reliability benefits referred to in the application from TEL are in regard to both the baseload nature of geothermal generation and the ability of NGL to help supply the north of the North Island in the event that there is a problem further south or demand is limited by the system operator. The reliability benefits are not in regard to NGL operating in an islanded mode within TEL's network region as geothermal generation does not readily ramp to follow load and is thereby unsuited to providing frequency keeping.
- 10.3. The reliability benefits of geothermal generation derive from its consistent output. In the past few winters, low residual situation notices have often been caused and exacerbated by lower than forecast intermittent generation. The generally constant output from stations like Ngāwhā springs power station help maintain supply, and do not cause the sort of issues that intermittent does for system security.
- 10.4. NGL's generation at Ngāwhā is currently the only generator in Northland that can provide voltage support by injecting or absorbing reactive power. New Zealand's power system is long and thin with a large load in the north, and a lot of generation in the south. This makes it vulnerable to transmission faults that might cause voltage instability in the power system. Any additional generation at Ngāwhā Springs helps with reducing the impact of transmission faults, enabling intermittent generation and improving system stability by providing voltage support.

11. Applying the test to the facts: Efficiency

How will granting an exemption to arm's-length rules 9 and 10 affect efficiency?

- 11.1. Granting an exemption means that the cost of complying with the arms-length rules are not incurred. If compliance and these costs are unnecessary, then avoiding them is an efficiency gain. These compliance costs are therefore a benefit of the factual and a cost of counterfactual-1.
- 11.2. Regarding counterfactual-2, the prospect of incurring the compliance costs means the expansion does not happen, and the reliability and competition benefits are not realised.

It is efficient to maximise the utilisation of the scarce transmission resource

- 11.3. It is efficient for geothermal generation to use scarce transmission because this creates the largest benefit for reliability and competition. These benefits occur for the factual and counterfactual-1, but not counterfactual-2.
- 11.4. Because geothermal output is constant (only varying with ambient temperature), it makes maximum use of available transmission. It can take days from startup of wells to reach steady operational output. Operational focus is therefore on maintaining steady state operations with output only varying depending on ambient temperature. By contrast, solar generates off-peak and at low utilisation and its output is dependent on weather rather than operational choices.
- 11.5. Referring to the analysis above, the competition and reliability benefits derive from the export of electricity southwards. The more that is exported, the greater these

benefits are as this enables a wider market for forward contracts, more supply and lower prices.

- 11.6. While appropriate specified intermittent generation can provide voltage support, there is not guarantee that it will be generating when required. For Auckland in particular, voltage support is most needed overnight when solar is not generating. Installation of an appropriately specified battery energy storage system (BESS) can address these disadvantages.

12. Additional matters

Cross subsidisation

- 12.1. TEL is subject to a Commerce Commission default price path. This regulated price path makes cross subsidisation unlikely between NGL and TEL. The most harmful impact of cross subsidisation would be if TEL used network prices to subsidise generation investments.
- 12.2. The price quality path that TEL is subject to means that it is unable to increase its distribution charges without network investment to justify this. The price quality path is designed to ensure a fair return on this investment without compromising the quality of supply. If TEL were to defer maintenance to subsidise NGL then reliability would eventually deteriorate and this could lead to scrutiny from the Commerce Commission.

Remaining arm's-length rules and Part 6 will still apply

- 12.3. The objective of Schedule 6A.1 of Part 6A of the Code is to ensure that businesses to which clause 6A.3 of the Code applies operate at arm's-length. The exemption for TEL, NGL, and its directors and managers would only apply to arm's-length rules 9 (separate management rule) and 10 (directors and managers must not be placed under certain obligations). An exemption from rule 10 is required because it is necessary to allow the appointment of managers with material influence over both entities. The remaining rules 1 to 8 and 11 to 15 would continue to apply.
- 12.4. The remaining rules require that the distributor and connected generator:
- (a) take all reasonable steps to ensure the arm's-length objective is met
 - (b) ensure transactions between the parties are entered into on terms that are consistent with each party acting independently
 - (c) not exercise power or act in a manner they reasonably know prefers the interests of the related party
 - (d) not favour the related party when providing services or benefits
 - (e) ensure staff not take into consideration their dual capacity across the two businesses when making decisions on behalf of either business
 - (f) appoint at least 2 independent directors for each business, and ensure cross directors are not executive directors of the other business
 - (g) not disclose information to the related party that they would not reasonably have access to as a separate business.

- 12.5. These arm's-length rules help control incentives and opportunities for directors and management to inhibit competition, including through TEL cross-subsidising NGL. If the Authority found that TEL was not abiding by the arm's-length rules, in a manner that inhibited competition, the Authority has the ability to revoke or amend the exemption under section 11(4) of the Act. Accordingly, this would encourage TEL to comply with the arm's-length rules to avoid this outcome.
- 12.6. In addition to the arm's-length rules, TEL is still subject to the obligations in Part 6. In particular, clause 6.11 requires distributors to act at arm's length and requires a distributor to use, in respect of all distributed generators, the same reasonable efforts in processing and considering applications for connection. This rule applies regardless of whether the distributor has an ownership interest or a beneficial interest in the distributed generator and regardless of who the distributed generator is.

TEL is owned by a Trust and TEL network consumer are beneficiaries

- 12.7. TEL is wholly owned by TECT. Consumers on TEL's network are the beneficiaries of this trust, weakening the incentive for TEL to shift costs from non-regulated activities such as generation onto its regulated distribution business.
- 12.8. Although TECT does not meet the requirements in Part 4 of the Commerce Act to be exempt from price-quality regulation (because the trustees are not directly elected by consumers)¹⁵, the combination of consumer ownership (as beneficiaries) and price-quality regulation help relieve concerns about TEL structuring its cost allocations to benefit shareholders at the expense of consumers, as they are one and the same.
- 12.9. Because remuneration incentives on shared management are based on overall TECT performance, a residual incentive remains for shared management to allocate costs in a manner that maximises the total revenue of TECT.
- 12.10. The Authority considers these concerns are reduced by the oversight of the directors and the TECT to act in the interest of the ultimate owners, who are consumers supplied by TEL's distribution network.
- 12.11. Since TEL's ownership structure is an important factor in our decision, the Authority proposes a condition that the exemption applies only for so long as TEL and NGL remain wholly owned by TECT. If TEL and NGL are divested, they would be required to either comply with corporate separation and arm's-length rules, or obtain a new exemption assessed under the new ownership structure.

Carbon zero status

- 12.12. TEL states that its innovation and success transitioning from one of the most carbon intensive geothermal generators to one of the lowest is attributable to the cost efficiencies achieved as a result of its shared management and ownership

¹⁵ Consumers may nominate trustees, but appointments are made from those nominations by a panel consisting of:

- a) the member of Parliament for Northland
- b) the member of Parliament for Te Tai Tokerau, and
- c) the Chairman of the Northland Regional Council.

structure. NGL has achieved carbon zero status in relation to three of its four existing generations plants and anticipates zero carbon status for its fourth plant by the end of 2023¹⁶.

13 The exemption meets the tests in the Act and Code

13. If the Authority grants the requested amendment to the existing Ngāwhā exemption, with the conditions proposed by the Authority, our draft decision is that we can be satisfied that:
 - (a) an amendment to the exemption/dispensation to increase generating capacity to 117MW is necessary or desirable for the purpose of achieving the Authority's main objective, which is to promote competition in, reliable supply by, and efficient operation of, the electricity industry for the long-term benefit of consumers.
- 13.2. When assessed against counterfactual 1, granting the exemption would not affect competition or reliability, and there would be efficiency gains as a result of the costs of compliance with the arm's-length rules being avoided. When assessed against counterfactual 2, granting the exemption would improve competition in the retail and over-the-counter forward markets, and reliability and efficiency would be better achieved than if the exemption was declined and TEL did not proceed with the planned expansion.
- 13.3. The Authority's draft decision is that granting TEL's exemption application is desirable for achieving the Authority's objectives when assessed against either counterfactual, although the gains are significantly greater when assessed against counterfactual 2.
- 13.4. Both counterfactuals need to be considered because it is not clear what course of action TEL will take in the event of the Authority declining TEL's exemption application. TEL has stated that it requires regulatory certainty in relation to its exemption application before it can proceed with its business case for the additional generation. The costs and requirements involved in complying with arm's-length rules 9 and 10 are, it says, a significant factor for its investment case.
- 13.5. In addition to TEL's exemption application meeting the test in the Act and Code, there are other factors which provides some checks and balances, including the proposed conditions, the remaining arms-length rules and Part 6 applying, and TEL's ownership structure. All of these factors should incentivise TEL and NGL to act in good faith and avoid anti-competitive behaviours that are not in the long-term benefit of consumers.
- 13.6. If the other arm's-length rules or Part 6 of the Code were breached by the Authority, section 54 of the Act sets out the remedial actions the Rulings Panel may take and includes pecuniary penalties of up to \$2 million. In addition, the Authority has the power to revoke an exemption, if the Authority is no longer satisfied that compliance with the Code is not necessary for achieving the Authority's objectives, or that exempting the participant would better achieve the Authority's objectives

¹⁶ [Top Energy Limited 2023 Sustainability report](#)

than compliance. A review of any exemption could be prompted by evidence of any anti-competitive or unlawful actions by TEL or NGL.

14 Comments sought

- 13.7. The Authority seeks comments from interested parties on the proposed amendment to the exemption, including comments on the conditions proposed. The Authority requests that comments are provided no later than 5 pm on Tuesday 24 November 2023.
- 13.8. After taking any comments into account, the Authority will make its final decision on the Application and publish a notice of exemption (if applicable) in the Gazette.

Appendices

- 13.9. There are the following appendices to this paper:

Appendix A TEL's exemption application

Appendix B Draft Gazette and dispensation notices