MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa
New Zealand Government

Review of the Electricity (Hazards from Trees) Regulations 2003

DISCUSSION DOCUMENT

MARCH 2023

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Ministry of Business, Innovation and Employment (MBIE) Hīkina Whakatutuki – Lifting to make successful

MBIE develops and delivers policy, services, advice and regulation to support economic growth and the prosperity and wellbeing of New Zealanders.

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MARCH 2023

Ministerial Foreword

This discussion document proposes options for amending the Electricity (Hazards from Trees) Regulations 2003 to help improve the resilience of the electricity network so Aotearoa New Zealand can prepare for a changing climate.

As stated in the government's Emissions Reduction Plan, the Government's 2050 vision for energy and industry is for Aotearoa New Zealand to have a highly renewable, sustainable and efficient energy system supporting a low-emissions economy.

New Zealand has recently experienced severe weather events that have caused unprecedented damage to our electricity distribution infrastructure and our communities - we have collectively felt the impacts of our changing climate.

The Tree Regulations provide clarity around the rights and responsibilities of both those who own vegetation, such as trees and plants, and works owners, such as electricity line owners or operators, where trees and electricity lines share space.

While the overall framework of the current regulation works well, improvements can be made to make implementation of the Regs more effective and efficient. A growing number of people are changing the use of their land to plantation forestry and receiving carbon credits, but climate change will exacerbate the interaction of electricity lines and vegetation. It is also important to consider the interests of vegetation owners and the value of that vegetation. The recent weather events have made this consultation timely than ever: a resilient and safe electricity supply is crucial for safety, and for our economy.

In its review of the existing regulations, the Ministry of Business, Innovation and Employment (MBIE) has consulted with a range of stakeholders on aspects of the regulations that are not working as well as they could, and on possible amendments to the regulations to help prepare for a changing climate.

We welcome your feedback on MBIE's preferred options.

Hon Dr Megan Woods

Minister of Energy and Resources

How to have your say

Submissions process

The Ministry of Business, Innovation and Employment (MBIE) seeks written submissions on the issues raised in this document by **5pm on Wednesday, 19 April 2023**. Your submission may respond to any or all of these issues. Where possible, please include evidence to support your views, for example, references to independent research, facts and figures, or relevant examples.

Please include your contact details in your submission. You can make your submission:

- By completing the online summary submission form which can be found at https://www.mbie.govt.nz/have-your-say/.
- By sending your submission as a Microsoft Word document to: HazardsFromTrees@mbie.govt.nz
- By mailing your submission to:
  Energy Markets Policy
  Ministry of Business, Innovation and Employment
  PO Box 1473
  Wellington 6140

Please direct any questions that you have in relation to the submissions process to HazardsFromTrees@mbie.govt.nz.

MBIE will publish a summary of submissions

After submissions close, MBIE will publish a summary of submissions on our website at www.mbie.govt.nz. We will not be making any individual submissions public. Should any part of your submission be included in the summary of submissions, MBIE will seek your permission to publish your information, and ensure it does not refer to any names of individuals. When businesses or organisations make a submission, MBIE will consider that you have consented to the content being included in the summary of submissions unless you clearly state otherwise. If your submission contains any information that is confidential or that you do not want published, you can say this in your submission. The Privacy Act 2020 applies to submissions and survey responses. Any personal information you supply to MBIE in the course of making a submission will be used by MBIE only in conjunction with matters covered by this document.

Submissions and survey responses may be the subject of requests for information under the Official Information Act 1982 (OIA). Please set out clearly if you object to the release of any information in the submission, and in particular, which part (or parts) you consider should be withheld (with reference to the relevant section of the OIA). MBIE will take your views into account when responding to requests under the OIA. Any decision to withhold information requested under the OIA can be reviewed by the Ombudsman.

What happens next

MBIE will analyse all submissions received and then report back to the Minister of Energy and Resources on the feedback, with recommendations for her consideration. Your submission will help inform decisions to ensure the Electricity (Hazards from Trees) Regulations 2003 is fit for purpose.

Contents

Glossary

Descriptions of key terms here are not intended to be definitions.

Electricity Distribution Businesses (EDBs)	The owners of the 29 different electricity distribution networks around New Zealand. They are monopolies regulated by the Commerce Commission.
Existing works	Any electricity works constructed or whose construction began before 1 January 1993 (except for works owned by mixed ownership model companies or state-owned enterprises, e.g. Transpower, which must have been built or begun being built before 1 Jan 1988).
Fall risk trees	The risk of trees beyond the Growth Limit Zone falling over and hitting electricity lines and assets.
Growth limit zone (GLZ)	The Trees Regulations prescribe minimum distances for trees to be trimmed back to around electricity (power) lines, called Growth Limit Zones (GLZ), which vary according to the voltage of the line. The Trees Regulations provide a list of prescribed distances between electricity lines and vegetation according to the line voltage.
Risk-based approach (RBA)	A method of assessing and mitigating risk that examines the specifics of each individual situation, rather than applying the same rules to every situation.
Vegetation	A tree, shrub or plant, but used interchangeably with the term ‘tree’ in this discussion document.
Works owner	The owner of electricity distribution or transmission lines and other assets (works).

Introduction

The interaction of vegetation with power lines can increase the risk of electricity outages, damage electricity lines and other assets ("works[1]"), create fire hazards, and ultimately become a risk to safety of the public. The growth of vegetation can cause it to touch or fall on electricity lines, and lines can also sag into or arc to vegetation in close proximity.

The purpose of the existing Electricity (Hazards from Trees) Regulations 2003 (the Trees Regulations) is to protect the security of electricity supply and the safety of the public by:

- prescribing distances from electrical conductors within which trees must not encroach. A conductor is any "wire or cable used or placed in position for the conveyance of electricity"; not including electric fences.
- setting rules about who has responsibility for cutting or trimming trees that encroach on electrical conductors
- assigning liability if those rules are breached, and
- providing an arbitration system to resolve disputes between works owners and vegetation owners about the operation of these regulations.

MBIE investigated the effectiveness of the Trees Regulations. We spoke to a range of stakeholders in the two main affected groups: vegetation owners and works owners. The purpose of the Trees Regulations is to protect the security of electricity supply and the safety of the public, but it is seen as ineffective and inefficient by works owners in achieving its purpose. Vegetation owners consider that the Trees Regulations are working reasonably well, although some of them consider that the existing regulatory settings already overly benefit the works owners.

This discussion document seeks feedback from the public and stakeholders on MBIE's preferred options for amending the Electricity (Hazards from Trees) Regulations 2003 (the Trees Regulations). At the end of each section, there are some questions that we seek your feedback on, which will help inform our advice to Ministers on any proposed changes to the Trees Regulations.

[1] Section 2(1) of the Electricity Act 1992 defines works owners as the owners of any works, which are "any fittings that are used, or designed or intended for use, in or in connection with the generation, conversion, transformation, or conveyance of electricity".

Context

The existing regime

The purpose of the Trees Regulations is to provide clarity about the rights and responsibilities of vegetation owners and "works owners", where trees and lines share space.

"Works owners" are the owners of either:

- distribution power lines and assets (as electricity distribution businesses (EDBs)), or
- the national grid of transmission lines and assets (as Transpower).

The general scheme is that works owners are expected to identify risks, which are generally defined in relation to the Growth Limit Zone (GLZ), a protected corridor around vulnerable electricity assets. The Trees Regulations prescribe minimum distances for trees to be trimmed back around the GLZ. These distances vary according to the voltage of the line.

If a works owner becomes aware of a tree encroaching the GLZ, the works owner must notify the vegetation owner that the tree is doing so and that it must be cut or trimmed. The works owner may warn a vegetation owner if a tree approaches within 1 metre of the GLZ.

Where risks are identified by the works owners, vegetation owners generally have a responsibility, once alerted to the risks, to address them at their own expense or face liability. The Trees Regulations require vegetation owners to trim trees when they have been notified that they encroach into the GLZ. There are exceptions to this general approach in some circumstances.

There are special rules which only apply the first time that a vegetation owner is notified of a tree encroaching the GLZ. If the works owner has, for the first time, notified the vegetation owner of a tree encroaching the GLZ, the works owner must meet the reasonable costs of any consequent cutting or trimming (the "first trim"). The works owner may cut or trim the tree itself, although it does so at its own expense.

There is an "opt out" process through which an owner or occupier of any land on which a tree is growing may avoid liability for the costs of managing risks from the tree. An owner or occupier of any land on which a tree is growing may notify a works owner that it has *no-interest* in a tree. Subject to some conditions being met, the owner or occupier is not then liable for the cost of remedying damage caused by the tree. The works owner is then free to remove or trim such a tree (at its own expense) subject to obtaining permission to enter the land on which the tree is growing.

The works owner must cut or trim a tree without delay if it becomes aware that there is danger to persons or property. The vegetation owner is liable for the reasonable cost of this work if it has failed to respond to notification of encroachment.

Beyond the GLZ, works owners negotiate with vegetation owners for any additional trimming or felling they deem necessary to reduce risks.

Works owners may need to gain access to vegetation on private property if they are assessing tree growth around a line, conducting the first trim, or where the vegetation owner has declared "no-interest" in a tree. Where a works owner receives a notice of no-interest in a tree from the landowner or occupier, the works owner must first obtain permission from that landowner or occupier to enter the land before trimming the tree. If permission for the works owner to enter the land to trim or remove the tree is not given, the no-interest notice will then be immediately rescinded.

For disagreements surrounding the trimming of a tree, the Trees Regulations provides a dispute resolution process through an arbitration mechanism. Under regulation 19 of the Trees Regulations, a vegetation owner can request "dispensation" from the works owner (an exemption from trimming a tree) following notification of an encroachment from a works owner. Under Regulation 20, a vegetation owner may also apply to an arbitrator to determine a dispute with a works owner if the works owner has refused to grant a dispensation, or the vegetation owner believes that dispensation should have been granted. The vegetation owner can also apply for an arbitrator if dispensation has been granted by the works owner, but the vegetation owner does not agree to the terms of that dispensation.

What is the problem?

New Zealand is transitioning to a low-carbon future. Part of this transition will be the decarbonisation of the energy system through the phase out of oil and gas, and shift to 100 per cent renewable electricity generation. Electricity lines infrastructure is a critical part of this transition, by ensuring electricity is reliably distributed to where it is needed. Climate change is predicted to increase the frequency of storms and wind speeds. This will exacerbate the interaction of electricity lines and vegetation and increase the risk to the security of the electricity supply and safety of the public.

The Trees Regulations took over ten years to develop, with much disagreement between the works owners and vegetation owners, about how trees around power lines should be managed and who should bear the costs of managing them. MBIE has consulted with works owners and vegetation, initially in 2019 and further in 2022, in response to requests to review the Trees Regulations due to perceived inefficiencies and inequities.

Works owners see the Trees Regulations as unfairly allocating much of the work and cost of identifying and managing hazardous vegetation to them and therefore to their customers through higher lines charges. While MBIE does not have the data on the impact of vegetation expenses on lines charges, we do know that EDBs operating expenditure for vegetation management has been increasing since 2013. Works owners consider that some significant risks are not adequately dealt with. Their concerns were more with the interactions with large commercial businesses (such as forest owners) than with individuals or small businesses. They also consider that the Regulations are overly complex.

Vegetation owners consider that the Trees Regulations are working reasonably well. However, some consider that the current settings already benefit the works owners unfairly, given that works pass across their land without any compensation and restrict what they can do with it.

Following our engagement with key stakeholders, we came to the view that the existing framework is broadly sound but some aspects of it need addressing. While general issues of cost sharing prompt a lot of discussion among stakeholders, there are a set of issues that sit beneath these which appear to be of the highest concern to them, and which are likely to be more tractable – and which should reduce costs across the system. We propose to focus on these issues in this document.

By contrast, the difference of views about the balance of cost sharing at the systemic level are not straight-forward to resolve, and the solutions discussed by stakeholders create their own set of risks. Removing all vegetation within falling distance from electricity lines would remove almost all of the vegetation hazards but it would also impose dramatic costs on vegetation owners. Equally, undergrounding all electricity lines would be very expensive and drive up costs for electricity consumers at a time when electrification will play an important role in decarbonisation of the economy.

MBIE has identified the following primary issues with the Trees Regulations that will be explored in this document:

1. There are risks to electricity network assets from trees that are not encroaching on the GLZ in the way anticipated by the Trees Regulations, but that could still fall on the assets during a severe weather event ("fall risk trees"). This is the most significant issue raised by stakeholders.

2. Vegetation owners consider that the Trees Regulations do little to prevent the over-trimming of hazardous vegetation, which can result in unnecessary diminution of economic or amenity value.

3. The Trees Regulations apply at the level of individual trees which imposes an administrative cost on works owners in monitoring encroachment and maintenance.

4. The scope for opting out through a "no-interest" notice, and the distinction between the "first trim" and subsequent remedial work, create confusion and gaming opportunities which increase the costs for works owners.

5. The Trees Regulations do not sufficiently consider the impact of new tree planting and the risk it creates for network assets.

6. The process for works owners to access vegetation on private land appears difficult to works owners but appears too easy to vegetation owners.

7. The dispute resolution process appears to be under-utilised.

This document seeks to identify the scale of the problem and proposes options that balance the public and private costs and benefits of improved security of supply from vegetation management.

1	Do you agree with the issues that MBIE has identified with the Trees Regulations? Why, or why not?

Evidence on the current problem

To help MBIE better understand the nature and size of the problem with the existing Trees Regulations, we consulted with a range of stakeholders, most of whom were either works owner or vegetation owner organisations.

Vegetation owners

The range of organisations MBIE consulted for the review include vegetation owners, farmers, horticulturalist, arborists, and some councils and iwi organisations. Those consulted are representative of key stakeholders from across New Zealand.

Vegetation owners expressed concern that works owners went much further with trimming and felling vegetation than was justified by the risks to electricity lines, thus reducing the value or amenity value of that vegetation. Vegetation owners that were consulted believe that the Trees Regulations cause tension between works owners and trees owners in regard to access to private land.

All vegetation owners strongly disagreed with any changes to the Trees Regulations that increased the powers of the works owners over their vegetation, noting that lines can also sway in the wind causing damage to vegetation and should be undergrounded.

The view of vegetation owners is that their business is effectively subsidising a public good by sacrificing some of their land for lines to pass through. By clearing land for the lines that pass through, the land becomes unproductive and there is a loss of potential business. In addition, rural vegetation owners argue they are price takers supplying into a commodity market. They cannot generally pass on increased costs from lost vegetation in the same way that works owners can pass on the costs of vegetation trimming to electricity consumers.

Vegetation owners also noted that they often rely upon the specialist knowledge of works owners to identify risks to electricity lines from surrounding vegetation. There is concern that if responsibility for the identification and management of vegetation risk falls on vegetation owners who may be untrained in how to safely work close to high voltage lines, there is a real risk to the health and safety of personnel.

Table 1 below summarises the characteristics and interests in the Trees Regulations for a typical vegetation owner in this category of stakeholder.

Table 1: Vegetation owner characteristics and interests

Vegetation owner	Characteristics	Interests
Urban properties	• Decreasing vegetation on sections from intensification • Vegetation owners generally do not have strong incentives to manage vegetation risk or the ability to understand the likelihood and consequence of trees causing an outage	• Vegetation has high amenity value
Rural properties and farms	• Amenity trees and shelter belts	• Maximising productive land use
Iwi organisations	• Mostly farming and forestry businesses • Connection to the land/tangata whenua • Rangatiratanga under Article Two of the Treaty of Waitangi	• Forestry over 1 hectare in size may have Emissions Trading Scheme (ETS) implications • Maximising productive land use • The rights of access that the regulation provides for works owners and its impact on rangatiratanga
Horticulture	• Commercial fruit and vegetable growers • Some resources for assessing risk and conducting tree work	• Maximising productive land use
Councils	• Trees in reserves, on berms	• Some resources for assessing risk Often have ownership links with EDBs
Department of Conservation (DOC)	• Trees in reserves, national parks • Existing legislation (and exemptions in the existing Trees Regulations)	• Conservation of native vegetation
Forestry (> 1 hectare) (Represented by Forest Owners Association)	• Mostly exotic plantations • Some incentive to manage risk because of wildfires and insurance requirements • Mostly corporates with resources and process capable of assessing risks and conducting tree trimming and removal	• Maximising productive land use • ETS implications
Farm Forestry (Represented by Farm Forestry Association)	• Shelter belts on productive land • Orchids • Mostly exotic plantations	• Maximising productive land use • ETS implications

Works owners

Works owners do not consider that the Trees Regulations are achieving their objectives well.

Works owners consider that the key problem is that the existing Trees Regulations do not regulate vegetation outside the GLZ, resulting in fall line risks (from trees outside the GLZ within falling distance from electricity lines) to their assets, electricity outages and fire. Their view is that the GLZ should be widened so that the area it covers would include hazards such

as trees outside the GLZ that could fall on lines or with growth over lines, or the Trees Regulations updated to consider the risk to lines outside of the GLZ.

They also consider there are a number of inefficiencies with the Trees Regulations, such as the notice system and allocation of the first cut to works owners. The notice system works on a per tree basis, and works owners believe that this, combined allocation of the first cut or trim to them, results in a large administrative burden as they must keep track of individual trees to issue notices and to keep track of whether they have provided the first cut or trim.

Works owners are also concerned that there is low awareness that EDBs are not responsible for repairing lines owned by customers (those that connect power poles to a property).

Table 2 below summarises the characteristics and interests in the Trees Regulations for a typical works owner in this category of stakeholder.

Table 2: Works owner characteristics and interests

Stakeholder	Characteristics	Interests
Transpower	• State-owned manager of the high-voltage national electricity transmission grid	• Concerned that trees are growing too close to transmission lines, partly because of land use changes to forestry, resulting in damage to transmission lines that disrupt the supply of electricity • Would like to have greater powers to manage risks of vegetation to electricity supply, particularly from fall risk trees
29 EDBs	• Mixture of community trust and private company monopoly distribution line owners • Diverse range of terrain, latitude, and customer bases • Complete regular inspections of electricity lines for general asset management	• Have long-standing grievances with the Trees Regulations and many are dissatisfied with the GLZ and would also like to have greater powers to manage risks of vegetation, particularly from fall risk trees outside of the GLZ • Most consider undergrounding lines too expensive to pass on to electricity consumers

Māori rights and interests

The Government also has a constitutional role in ensuring its Treaty of Waitangi obligations and responsibilities are being met, particularly if any additional restrictions are put on Māori land use, including for forestry and farming.

MBIE has identified general types of Māori interests that are involved in most proposed regulations, including the interaction between vegetation and lines, which can impact on:

- General iwi/hapū interests in their own land, and its utility,
- Wider interests of Māori in the health of the land and its environment as kaitiaki, and
- Iwi land owning interests managed by iwi organisations with commercial interest in the Trees Regulations.

As part of our review, MBIE identified iwi land owning interests in rural areas as the grouping that would have the highest interest in and understanding of operational and financial consequences of any changes to the Trees Regulations, particularly regarding set back distances around electricity lines that pass over their land.

MBIE consulted with a number of these organisations in the central North Island, and two in the South Island working for Ngāi Tahu. While the Trees Regulations do not distinguish between Māori land and non-Māori land, the iwi organisations' concerns were as follows:

- The key asset of land is an intergenerational asset, and ensuring flexibility of land use for both current and future generations is of great importance.
- A key principle that needs to be addressed is 'property rights', so that a landowner has the right to operate their chosen business on their own land without interference from, or costs imposed, by another business without compensation.
- The electricity works are located on private land and create an otherwise non-existent risk to vegetation and forestry assets.
- The electricity works owners are using the land at no cost and imposing costs on the operations of the landowners, so all costs of managing the works and any risks to their works should be met by the works owners.
- With settlement land, the Crown had the opportunity to put in place easements in favour of line owners to address any such issues prior to the settlement, but did not do so, presumably because the mechanisms in place at the time of settlement were deemed to be adequate.
- Line owners should be required to mitigate and minimise the risk of fire to landowners and/or forest owners by taking preventative measures such as greater maintenance, safety improvements, voltage monitoring, reducing the size of spans between poles.

MBIE considered the Crown's Treaty of Waitangi obligations and the concerns of the iwi organisations we consulted with when determining the options for amending the Trees Regulations.

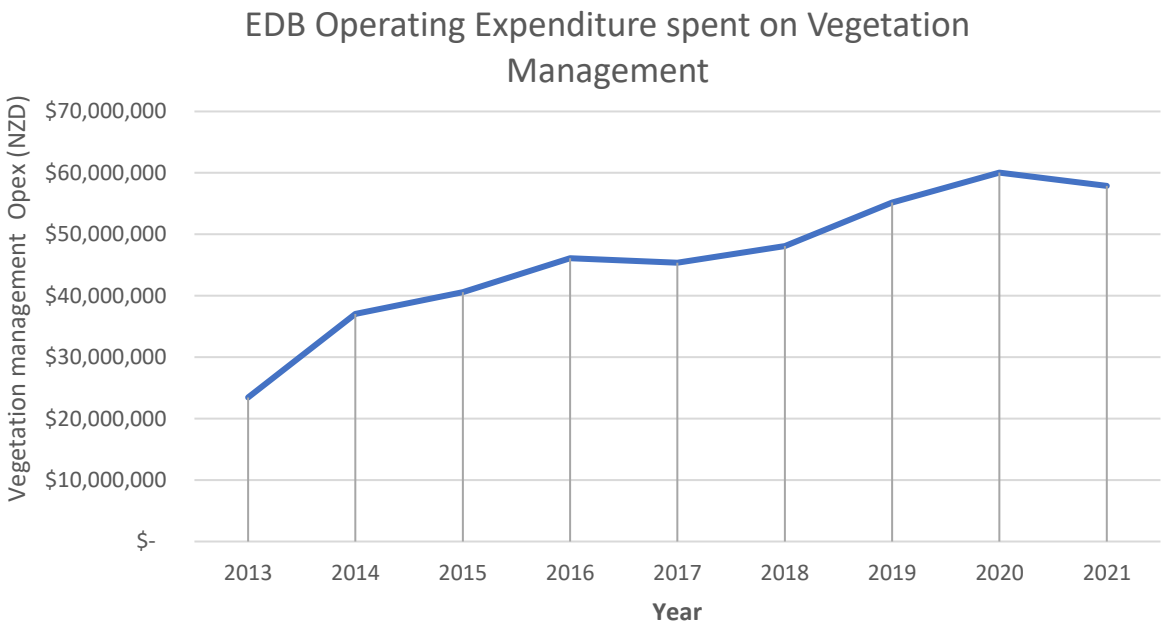
2	What considerations do you believe the Trees Regulations should have in respect to Te Tiriti o Waitangi?

Distribution networks

As regulated monopolies, the 29 EDBs must provide data on vegetation management to the Commerce Commission, including vegetation-related data on dollars spent and the frequency and duration of outages caused by vegetation. This publicly available data (currently from 2013 to 2021) is on the Commission's website as part of their electricity distribution database.[2]

Figure 1 below shows the operating expenditure (opex) spent on vegetation management by the 29 EDBs between 2013 and 2021. This data was obtained from the Commerce Commissions' Performance Accessibility Tool for electricity distributors and has been adjusted for inflation against a constant index.[3]

Figure 1: EDB Operating Expenditure spent on Vegetation Management 2013 - 2021



[2] https://comcom.govt.nz/regulated-industries/electricity-lines/electricity-distributor-performance-and-data/information-disclosed-by-electricity-distributors

[3] https://public.tableau.com/app/profile/commerce.commission/viz/Performanceaccessibilitytool-NewZealandelectricitydistributors-Dataandmetrics/Homepage

Overall, the amount appears to have trended upwards since 2013 to 2021[4]. This means that from 2013 to 2021 the 29 EDBs have collectively been spending on average 13 per cent more year-on-year on vegetation management opex.

For Horizon Networks, vegetation management expenditure was 10 per cent higher in 2021/22 than the previous financial year due to the growing risk of vegetation near critical circuits identified through their vegetation inspection program.[5] This expenditure is pre-emptive rather than a remedial cost in responding to damaged lines.

System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) are two of the measures the Commerce Commission monitors for ensuring customers are receiving a reliable standard of service. SAIFI measures how often outages occur and SAIDI measures how long outages last.

Figure 2 below shows the average frequency of outages across all 29 EDBs in Aotearoa New Zealand caused by vegetation during the years 2013 to 2021. SAIFI is calculated by taking the total number of customer interruptions divided by the total number of customers served, to tell us, on average, how many times the power went out for each customer over the course of the year due to vegetation. The Performance Accessibility Tool shows that between 2013 and 2021, vegetation was the cause of 13.5 per cent of customer interruptions.[6]

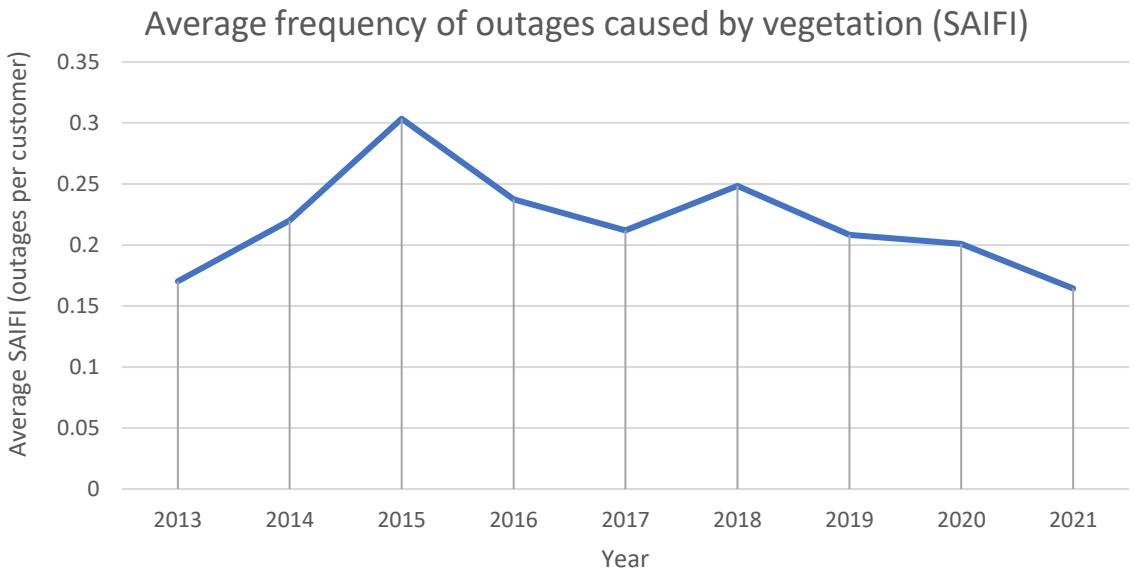
The graph does not show an upward trend in the number of outages over time and has in fact been decreasing since a peak in 2015. If the spend on vegetation opex is on pre-emptive vegetation maintenance, then we may be seeing the success of this spend in reducing outages caused by vegetation maintenance in this graph.

Figure 2: Frequency of outages (SAIFI) caused by vegetation

[4] However, the Commission informed MBIE that that the 2013 figures are likely to be on the lower side given it was the first year that vegetation management was categorised separately, and at least 10 EDBs had not yet made that distinction in their submitted figures.

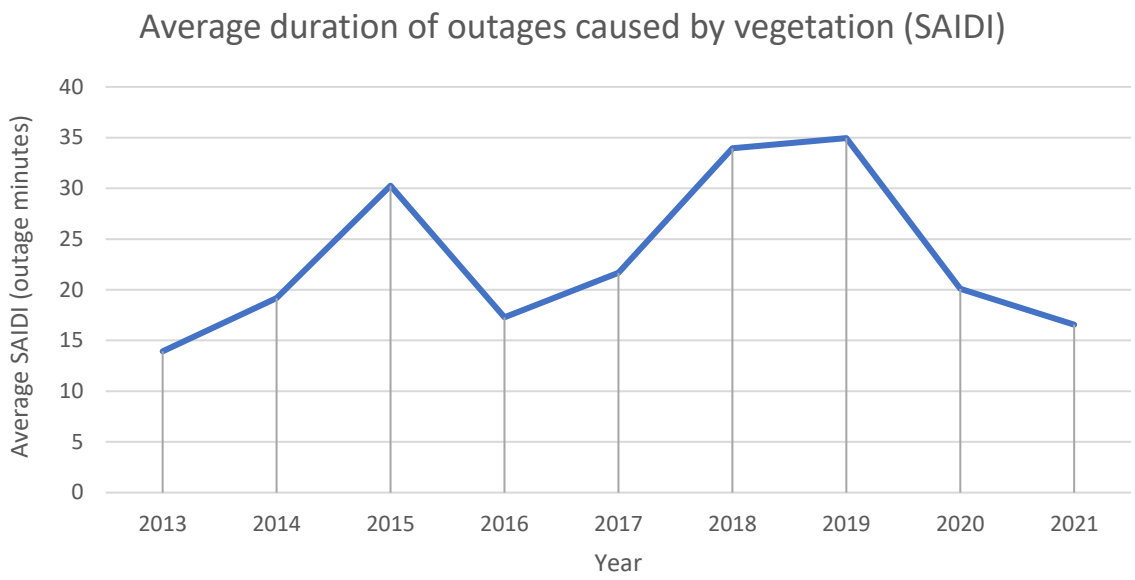
[5] 2022 Information Disclosure Accounts.pdf (horizonnetworks.nz)

[6] https://public.tableau.com/app/profile/commerce.commission/viz/Performanceaccessibilitytool-NewZealandelectricitydistributors-Dataandmetrics/Homepage



The System Average Interruption Duration Index, or SAIDI, measures how long outages last. Figure 3 below shows the average duration of outages for EDBs in Aotearoa New Zealand from 2013 to 2019. SAIDI is calculated by adding all customer interruption durations and dividing it by the total number of customers served, to give, on average, the number of minutes a customer was without power over the course of the year due to vegetation. A similar weather-related peak in 2015 can also be seen in this graph, where damage was caused during severe winter storm in June. This graph does not show any constant trends in length of outages caused by vegetation over time.

Figure 3: Duration of outages (SAIDI) caused by vegetation



Limitations

MBIE also requested additional data directly from the 29 EDBs, who explained that some EDBs include the costs of fixing assets damaged by vegetation in their reported spend, while others only include the cost of tree trimming.

Furthermore, the SAIFI/SAIDI figures collected by the Commerce Commission only account for interruptions to supply on the high voltage networks. Many of the interruptions actually occur on the low voltage network, which would not appear in SAIFI/SAIDI metrics.

EDBs can negotiate with vegetation owners outside of the Trees Regulations to manage and address vegetation risks outside the GLZ. However, this increases the cost of managing vegetation, which is paid for by the consumer/energy customer. With a fixed revenue, increased expenditure in one area will generally lead to a reduction somewhere else.

Transmission network

Transpower's lines carry electricity around the country across over 12,000 km of transmission lines. Transpower is not required to submit data to the Commerce Commission, but MBIE requested some data directly from it.

Table 3 below contains details of Transpower's vegetation management expenditure for the years 2013 to 2019, and its estimate of vegetation-caused asset damage that was classed as an operational expense so it could be passed on in line charges to the EDBs.

Table 3: Costs of vegetation management and estimated costs of asset damage

Year	Vegetation management costs allocated to operational expenditure	Estimated costs of vegetation-caused asset damage allocated to operational expenditure
2013	$5,494,551.53	$153,195.00
2014	$6,793,665.14	-
2015	$5,589,937.85	$128,344.00
2016	$5,523,806.65	$20,158.00
2017	$5,454,929.67	$56,745.00
2018	$6,022,149.98	$143,890.00
2019	$6,306,852.44	$1,000.00

Transpower also incurs varying costs for loss and duration of connections associated with vegetation depending on the line and the length of the outage, but it does not have residential ICPs so is unable to report on SAIFI or SAIDI metrics. However, Table 4 below contains data provided to MBIE regarding Transpower's lines and outages, including from fall risk trees.

Table 4: Estimated lines and customer outages caused by vegetation on the Transpower network

	Estimated current km of lines exposed to vegetation	Estimated % of outages caused by fall risk trees	Estimated % of lines without easements	Estimated % of situations resolved outside the Trees Regulations by negotiation
Forestry	1000	Less than 1%	95%	99%
Rural	4500	Less than 1%	95%	99%
Non-rural	500	Less than 1%	95%	99%
Total	6000	Less than 1% 41 outages since 2015 (no fall distance detail)	95%	99%

To illustrate the close proximity of some forests to their transmission lines, Transpower sent us the picture below (Figure 4). It shows damage to a tower on the Bunnythorpe-Wairakei 'A' line near Rangipo caused by trees falling during a storm event in 2012. The weight of the trees on the conductor buckled the tower. New foundations and tower repairs cost approximately $500,000, and while the trees were well outside the GLZ, they still presented tree fall risk.

Figure 4: Damage to Bunnythorpe-Wairakei 'A' line near Rangipo in 2012

New plantings

During consultation, both works owners and vegetation owners raised concerns that the Trees Regulations do not sufficiently address the planting of new vegetation near powerlines. The Trees Regulations do prevent vegetation owners from declaring no-interest in vegetation if it was knowingly planted in an area where it would eventually grow to be a risk to surrounding electricity lines.

Transpower's view is that the Trees Regulations should restrict new tree planting or replanting by setting a trigger distance around lines, broad enough to capture tree fall risk, for example 50 metres from the centreline.

Feedback from vegetation owners in the forestry industry is that the forestry industry is currently safely planting new vegetation beyond legal requirements and that the issues should decrease over time as legacy forests are harvested and replanted.

3	Do you think that the Trees Regulations should restrict the distance in which new trees can be planted or replanted in proximity to electricity lines?

MBIE's views on the evidence

The data is telling us that EDBs are spending more on vegetation management year-on-year. This may be reducing outages to customers that result from vegetation interacting with electricity lines, but it is nonetheless understandable that this trend would be of concern to EDBs.

Initial research by MBIE has found little data on the cost of removing a commercial hectare of forestry vegetation. According to Colliers in 2021, forestry companies are paying prices in excess of $16,000 per hectare for ground-based harvesting land in good localities.[7]

Given the anticipated future increase in adverse weather events and the need to adapt to protect the security of electricity supply, MBIE believes that there is sufficient rationale to consider changing some regulatory settings in the Trees Regulations to reduce the risks to electricity distribution and transmission lines and to the public.

[7] Colliers | New Zealand Forestry Market Update and Sales Map | 2021

Other relevant information

Case law in New Zealand

Since the Trees Regulations came into effect in 2004, there have been several cases in the New Zealand courts that have shown inefficiencies and lack of clarity in the Trees Regulations.

In the case of Nottingham Forest Trustee Ltd (NFT) v Unison Networks Ltd, NFT owned land on which it had planted a commercial forest. Between December 2010 to August 2016 pine trees growing in the forest, which had been planted years earlier, fell onto electricity lines owned and operated by Unison Networks. Unison's customers experienced power outages while repairs were carried out, and Unison incurred costs as it repaired the damage. Unison sued NFT both in negligence and in nuisance and sought damages to cover the cost of repairs and an injunction to prevent future falls of trees. NFT thought that it had no obligation under the Trees Regulations, and that the trees were falling due to bad weather over which it had no control.

The High Court found that NFT had a strict liability in relation to the interference caused by its trees. It held that the recurring tree falls caused ongoing and substantial physical damage to Unison's property which constituted an actionable nuisance. Given the inevitability of tree falls following bad weather conditions it was unreasonable for NFT to grow the trees to a height at which they would cause physical damage to Unison's line if they fell.

The Court of Appeal upheld the High Court decision. NFT was liable to pay damages, as the type of harm that was caused by the tree falls was undoubtedly reasonably foreseeable.

Arguably the effect of this decision is to create strong incentives for vegetation owners to manage the vegetation to avoid physical damage to networks, whether inside or outside the GLZ, and to bear the costs of doing so.

In the case of Marlborough Lines Ltd v Alasdair Lorne Cassels Hc Ble, the court found that the issue before it was more suited to an arbitration decision (where the arbitrator had practical knowledge as to electricity reticulation) so that a court was not called on to make case-by-case, fact dependent decisions. It found that the regulation only provided a limited arbitration regime that was not triggered in this case and encouraged the relevant government agency to amend the regime to make it more cost effective and user friendly.

MBIE has considered these cases when determining the options for amending the Trees Regulations.

4	Arguably the judgement in Nottingham Forest Trustee Ltd v Unison Networks Ltd has decisively clarified the responsibility for managing the fall line risk outside of the GLZ. Do you agree, and if so, is further government intervention necessary to address this risk?

International Jurisdictions

For our consideration of options to amend the Trees Regulations, MBIE also looked at the regulatory settings of some relevant international jurisdictions for managing vegetation. A number of different regulatory approaches exist. Furthermore, different approaches may be warranted in different contexts, for example in urban, rural and/or plantation forestry settings.

In our analysis of these overseas jurisdictions, MBIE focused primarily on the amount of prescription in those regimes to address risk to the public and security of electricity supply, and the way that responsibility for risk and cost are allocated between the vegetation owners (VO) and the works owners (WO). We have summarised the key aspects in Table 5 below.

Table 5: Summary table of international jurisdictions

Jurisdiction	Amount of prescription to address risk	Risk allocation	Cost allocation
New Zealand (status quo)	Medium	Shared	Shared
United Kingdom Electricity Safety, Quality and Continuity Regulations 2002	Low	Shared	WO (for expenses reasonably occurred by VO in complying with a notice)
United States of America - FAC-003-4 Regulations - 2017 ANSI A300 Tree Risk Assessment Standard	Varies by state	Varies by state	WO
Australia - Victoria Electricity Safety (Electric Line Clearance) Regulations 2020	High	Shared	WO
Australia - Queensland Electricity Regulations 2006	Low	Shared	WO
Australia - Northern Territory Electricity Reform (Administration) Regulations 2000	Low	WO	WO
Australia - Western Australia Electricity Regulations 1947	Low	Shared between WO, VO and the local council.	Shared between WO, VO and local council.
Australia - South Australia Electricity (Principles of Vegetation Clearance) Regulations 2010	High	Shared	WO
Australia - New South Wales Electricity Supply (Safety and Network Management) Regulation 2014	Low	Shared	WO (unless VO ought to have known)

The amount of prescription to address risk has been assessed as either high or low, for example the UK regulation has no prescribed minimum clearance distances, so it has a low amount of prescription to address risk. The Trees Regulations in New Zealand have been

assessed as providing a medium level of prescription to risk, through providing for minimum clearance distances – for example, it does not account for risks outside of the GLZ. In comparison, the regulation in South Australia prescribes a clearance-zone that also consider the voltage of the lines, the bushfire risk, and other factors of the surrounding area around the powerlines.

The levels of prescription used in New South Wales and South Australia provide an interesting contrast.

South Australia

Part 5 of the Electricity Act 1996 and the Electricity (Principles of Vegetation Clearance) Regulations 2010 (EPCVR) set out the South Australian regime for vegetation management near power lines. The size of the clearance zone varies according to the type of power line and whether or not they are in a bushfire risk area. The different types and sizes of clearance areas are specified in detail for many different situations in Schedule 1 of the EPCVR.

New South Wales

In contrast, the New South Wales regime does not prescribe any clearance distances; but a network operator may require the owner/occupier of a premise to trim or remove a tree if it has reasonable cause to believe a tree there may damage its electrical works or cause the works to create a risk to public safety.[8]

Network operators have the option of creating tree management plans which they must consult publicly on, for the trimming or removal of trees that may interfere with power lines, including lists of trees that may be planted under them.

There are also standard, non-mandatory, guidelines for clearance zones contained in the NSW Industry Safety Steering Committee (ISSC3) 2016 *Guide for the Management of Vegetation in the Vicinity of Electricity Assets.*[9] They outline vegetation management requirements determined to provide minimum risk outcomes applicable in the absence of a comprehensive site-specific risk assessment.

The guidelines state that a network operator should only apply clearances different to their recommendations based on a comparative risk assessment against the risk outcomes generated by the guide's clearance suggestions.

MBIE has considered these international approaches when determining the options for amending the Trees Regulations.

[8] See section 48 of the Electricity Supply Act 1995 (ESA) and Electricity Supply (Safety and Network Management) Regulation 2014.

[9] https://www.innerwest.nsw.gov.au/ArticleDocuments/1044/Guidelines%20for%20managing%20vegetation%20near%20power%20lines.pdf.aspx

Primary issues and options analysis

Objectives for the regulatory framework

The purpose of the review is to determine the appropriate regulatory settings for the Trees Regulations that address the problems identified above.

In terms of electricity security, electricity outages can result in costs to consumers. This is also known as the value of lost load, which represents the economic value, in dollars per MWh, that a consumer places on electricity they plan to consume but do not receive because of a power interruption. Vegetation around electricity lines can also create risks to public safety, including risks of electrocution, fire or falling trees. Loss of electricity supply can also be a risk to public safety as there are some consumers who may be medically dependant on a supply of electricity. Both are equally used when considering options in this section.

Our preferred objectives are set out in Table 6 below.

Table 6: MBIE's preferred objectives for the regulatory framework

Resilient electricity network	Public safety
• Promote adequate security of electricity supply, particularly in response to a changing climate	• Ensure vegetation management is undertaken in a way that provides for public safety

5	Do you agree with our preferred objectives of the Regulation, why or why not?

Criteria

MBIE will consider the proposed options using the policy assessment criteria in Table 7 below to test the extent to which the objectives are achieved in each option proposed, as well as other more generic objectives such as low administrative cost and greater certainty.

MBIE will also consider the balance of interests between vegetation owners and works owners when assessing options where there may be a conflict between their interests. While it is not an explicit goal of the Trees Regulations to maximise optimal land use for vegetation owners and landowners, MBIE seeks to avoid unreasonably infringing on their interests.

Table 7: Policy assessment criteria

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• To what extent does this option deliver security of electricity supply and public safety?	• To what extent are the administration and compliance costs proportional to the expected benefits, and to what degree are costs allocated to the party best placed to manage them?	• How well does this option provide predictability of regulatory outcomes?

We considered the proposed options as against the status quo (SQ) situation, which is rated "0' in all cases. The key to each table is:

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

We assigned a double weighting (x2) to criterion (i) of effectiveness, as it directly responds to the problem definition. Criteria (ii) and (iii) are secondary objectives that they require us to consider the workability and regulatory certainty of options for the proposed changes to the regulatory framework.

6	Do you agree with our policy assessment criteria, why or why not?

Primary Issues

This section of the discussion document contains our analysis of some options for addressing the primary issues we identified with the existing Trees Regulations, following our engagement with stakeholders and subsequent analysis of that information. It includes our preferred options based on criteria that we used to assess the options.

Table 8: Primary issues

Primary Issues	
1	How should vegetation risks outside the GLZ be managed?
2	How can the Trees Regulations prevent the over-trimming of hazardous vegetation, which can result in unnecessary diminution of economic or amenity value?
3	How should the Regulation balance the responsibility of vegetation owners and works owners?
4	What should the process for works owners to access vegetation on private land be?
5	How should disputes between vegetation owners and works owners be resolved?

Issue 1: How should vegetation risks outside the GLZ be managed?

The Trees Regulations do not currently provide sufficient guidance for dealing with the potential risks that vegetation poses to electricity lines outside of the GLZ and the "notice zone" (a buffer zone around the GLZ). Electricity lines are still at risk from fall zone trees and branches that overhang lines and vegetation that could fall onto lines due to weather events or poor tree health. As they are not explicitly considered in the regulation, vegetation owners may not be incentivised to address these risks proactively.

An example of this problem is the Nottingham Forest Trustee Ltd (NFT) v Unison Networks Ltd case. The trees at issue were not specifically regulated under the Trees Regulations as they were not encroaching on the GLZ. The trees however were within the fall line of the electricity lines.

Regulation 14 of the existing Trees Regulations does allow works owners to respond to immediate danger to persons or property outside of the GLZ. However, MBIE understands that works undertaken outside of the GLZ generally requires significant negotiations between works owners and vegetation owners to address risks that fall short of immediate danger.

The predictions of a changing climate with more frequent storms and stronger winds are likely to mean that more trees outside the GLZ will fall during such events and the consequence will become more severe.

Summary of key stakeholder views

Works owners consider that the Trees Regulations should give more powers to assess and respond risks outside of the GLZ. Works owners also believe that an improved risk-based approach (described below) would assist them with making informed decisions to manage vegetation as needed beyond the GLZ, to protect the security of electricity supply and to reduce damage to their assets and the number of outages to electricity consumers. Some of the works owners see this taking the form of a desktop assessment and an on-site assessment.

The vegetation owners we consulted have commercial interests in trees, such as forestry, and shelterbelt trees on farms and orchards. While these groups consider some type of setback is appropriate to protect their trees from fire, they are concerned that even a risk-based approach would result in their trees being unnecessarily trimmed or cut down.

Options

MBIE has identified four options for addressing this issue.

Option 1: No preventative risk management beyond the GLZ (Status quo)

Under the current status quo the regulation does not have any requirements to proactively identify and manage vegetation risks outside of the GLZ. The distance of the GLZ surrounding electricity lines would remain the same (maximum of 4 metres) and works owners would issue hazard notices when vegetation approaches the GLZ and cut or trim notices when vegetation enters the GLZ.

Table 9: Option 1 – No risk management beyond the GLZ

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option gives a good level of security and public safety, however there will still be unregulated risk as electricity lines will still be at risk to hazards outside of the GLZ.	• There would be continued costs associated with fixing lines that have been downed by vegetation, and electricity consumers would continue to have economic costs associated with interrupted electricity supply.	• There would be a low level of regulatory certainty as damage from vegetation from outside of the GLZ will still occur, but the regulation will not provide clarity on who is responsible.

Option 2: A much wider GLZ

Under Option 2, the new Trees Regulations could contain a much wider GLZ distance that covers most fall line risk vegetation in New Zealand. As an example, at the extreme end of the scale the GLZ could be extended from its current maximum of 4 metres to 24 metres to either side of an electricity line - the height of the average Radiata Pine at harvest age[10]. This would ensure that electricity lines (most plausibly, high voltage lines) would be clear from the fall line and overhang risks from vegetation.

[10] NZ Farm Forestry - Radiata pine (nzffa.org.nz)

Table 10: Option 2 - A much wider GLZ

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option would achieve very secure electricity supply and greater public safety, but there could be very high costs to vegetation owners and the public from the general loss of amenity value.	• The costs would be higher initially to works owners in removing extensive amounts of vegetation but then that cost would largely end. For vegetation owners, the cost of felling vegetation now in the extended GLZ could be very high and they could suffer from a significant economic loss of productive land to achieve this level of electricity security	• There would be a higher level of certainty than the status quo. While the regulation would still not reference risks from vegetation outside of the GLZ, its extension to a wider area may remove that risk altogether

This option would mean that there would be greater regulatory certainty and it would offer a higher level of security for the electricity supply and safety of the public. However, if the GLZ is extended to a size that eliminates almost all fall line risk, it would also result in a large amount of vegetation in New Zealand being felled or trimmed, even when, with good management, it might be unlikely the vegetation would interact with the lines.

This option could also lead to a large amount of vegetation loss for vegetation owners, and for commercial operators such as forestry owners it would result in a large cumulative commercial loss through reduced land potential. If the GLZ is extended to a measurement that is below the height of a full-grown tree (such as the Radiata Pine used in our example), then the fall line risk is not eliminated by the GLZ.

7	What are your thoughts on extending the GLZ to cover a larger area, what would be the appropriate distance for the extension and how might this affect you?

Option 3: No GLZ, but a broad power to address vegetation 'likely to interfere with' electricity lines

Under Option 3, the new Trees Regulations could follow the approach in section 128 of the Telecommunications Act 2001. This states that if a tree, shrub, or plant on any land interferes with, or is likely to interfere with, a telecommunications line, the network operator who uses the line may request the owner or occupier of the land to remove or trim the tree, shrub, or plant. This would remove the GLZ from the regulation and give a wider scope for works owners to interpret and assess vegetation on its risk to electricity lines no matter the distance between the vegetation and lines. It would also shift the cost of remedial action under the regulations to the vegetation owners.

If an owner, occupier, a local authority, or other person fails to comply with a request made under section 128, the network operator who uses the line may apply to the District Court for an order authorising the network operator to remove or trim vegetation in respect of which the request was made. On being satisfied that the vegetation on the land interferes with, or is likely to interfere with, a line, the District Court may make an order on any terms and conditions (including those relating to notice and time of removal or trimming) that the court thinks fit.

If a network operator removes or trims a tree, shrub, or plant on any land or road under the authority of an order made by the District Court, the owner, occupier, local authority, or other person to whom notice was given is liable for the reasonable cost of the work of the network operator.

MBIE understands from Chorus, who owns most of the telecommunication lines in Aotearoa New Zealand, that they interpret this reactively rather than proactively, as they do not have the same risks of fire or electrocution from their lines.

This option would probably require an amendment to the Electricity Act 1992.

Table 11: Option 3 – 'Likely to interfere with'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• It would create a very broad power that would protect the security of electricity supply, but there would be wide scope for works owners to interpret this, as long as they determined the risk as 'likely'.	• It may result in unreasonable amenity value and productive land losses for vegetation owners depending on the definition of 'likely to interfere with.'	• It would have little regulatory certainty due to the openness of a definition such as 'likely to interfere with', which provides works owners with significant discretion as to how to interpret the provision.

This option would allow the regulation to cover risks outside of the current GLZ. It would give works owners a broader power to protect the security of the electricity supply by giving them a wider scope to determine vegetation risks considered 'likely' to interfere with electricity lines. This option would also address many of the cost issues associated with the Regulation such as the no-interest clause and first-trim allocation.

This option provides little regulatory certainty if simply transferred as it currently stands in the Telecommunications Act. However, if combined with a risk-based approach to vegetation management, it could simplify regulation, while creating a more nuanced approach to trimming and felling hazardous vegetation.

8	Would a 'likely to interfere with' approach work if 'likely interference' were clearly defined and limited in the regulation? What would this look like to you?

9	Would a 'likely to interfere with' approach work if combined with a risk-based approach?

Option 4: A new notice category applying outside the GLZ.

Under Option 4, a new notice category would be introduced to the regulation that allowed works owners to issue vegetation owners with a warning notice that a vegetation hazard outside of the GLZ posed a risk to electricity lines. This notice would essentially widen the geographic scope of what the regulation considers as a hazard to the security of electricity supply and safety of the public.

The trigger for issuing the notice could be the identification of a clearly defined fall-line risk. A risk-based assessment could be required before a notice was issued.

This option would utilise the existing structure of the notice system.

Table 12: Option 4 – 'A new notice category'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• It would be a targeted solution to the scope problem of risks outside the GLZ	• This option would build on the current regulatory system and would be less disruptive to existing practices.	• It would not in itself provide certainty as each situation, but clear methodology in the Trees Regulations and guidelines would assist with this.

Failure to respond to the notice would expose the vegetation owner to liability in the same way as currently applies within the GLZ. Works owners have raised with MBIE that the notice system can sometimes be difficult to enforce, and we explore options for this under issue 4 later in this document.

Analysis of Options

MBIE has identified four options to address issue 1. The table below summarises our analysis of the proposed options against the policy assessment criteria:

Table 13: Criteria applied to options for risk management beyond the GLZ

	Effectiveness (X2)	Efficiency	Regulatory certainty	Overall assessment score/ranking
Option 1: No risk management beyond the GLZ other than s.14 (status quo):	0	0	0	D
Option 2: A much wider GLZ	+	-	+	C
Option 3: No GLZ, but a broad power to address vegetation 'likely to interfere with' electricity lines	+	+	-	B
Option 4: New notice category	++	+	+	A

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

Of these options MBIE prefers option 4, a new notice category. This option addresses the issue by directly considering vegetation risk outside of the GLZ and building upon the existing notice system.

However, we also note that this option could put more administrative burden on works owners to monitor and identify risks.

MBIE's next preferred option is option 3, 'likely to interfere with' approach. MBIE ranked this option second to option 4, as 'likely to interfere with' was deemed to be too ambiguous and would provide little regulatory certainty. However, as discussed below, such an approach could work if supplemented by a risk-based approach.

10	What is your preferred option out of the options proposed by MBIE for issue 1? Are there any options you would recommend that have not been considered?

Issue 2: How can the Trees Regulations prevent the over-trimming of hazardous vegetation, which can result in unnecessary diminution of economic or amenity value?

A key concern raised by vegetation owners during consultation is that in trimming or felling vegetation, works owners go further than necessary to address the risk presented by the vegetation. In addition, the economic or amenity value of vegetation to their owners is not given enough weight as part of the decision process in the Trees Regulations.

This concern could be addressed by applying a *risk-based* approach to managing vegetation. This is an approach to assessing and mitigating risk that examines the specifics of each individual situation, rather than applying the same rules to every situation.

Such an approach could require the works owner or the vegetation owner (or both) to apply a risk-based assessment when considering whether vegetation created a potential risk that needed to be managed. It could specify a set of principles that had to be applied in order to qualify as a risk-based approach. It could be applied at a number of levels, from the network level of the asset owner to the individual tree being assessed for risk.

A risk-based approach to regulation would make it less rigid and reliant on the GLZ concept as the key source of risk. The approach would balance the likelihood and consequence of vegetation interacting with powerlines and provide a path for a scaled response to that risk. This could alleviate the concerns of vegetation owners regarding the over-trimming or unnecessary felling of vegetation as the requirement to trim or fell vegetation would be considered on a case-by-case situation rather than removing areas of vegetation purely based on its distance to electricity lines. This should prevent unnecessary loss of amenity value and productive land.

While the risk-based approach seems attractive, the challenge is to operationalise it in a way that does not create significant additional costs for works or vegetation owners. Assessing risk on a case-by-case basis will still result in an administrative cost to the party responsible for assessing and managing the risk. It is also uncertain how much the cost of administering this method will be.

Summary of key stakeholder views

While the key advantage of a risk-based approach appears to allow a more nuanced approach to trimming and felling, which should work to the advantage of vegetation owners; there were mixed views among vegetation owners. Professional advisors to vegetation owners (generally arborists) supported this approach. Some stakeholders were concerned that it would lead to more rather than less intrusive vegetation management, if combined with a broader reach (for example, outside the GLZ).

Works owners strongly supported this approach, particularly if adopting it could be combined with removing other obligations (such as the “first trim” or monitoring “no-interest” declarations).

11	How do you think a risk-based approach in the Regulation to managing vegetation could be implemented and enforced?

Potential Criteria to Support Risk Management

As an example of a risk management approach, the International Society of Arboriculture provides a basic tree risk assessment form[11] for arborists to record and categorise information while performing a basic tree risk assessment. The Trees Regulations could require similar factors to be assessed by the party who is responsible for managing the vegetation before a notice can be issued:

- Site factors – such as the history of failures on the site, topography, soil conditions and common weather
- Tree health and species
- Load factors
- Tree defects and condition – including the crown, branches, trunk and roots

The objective of Part 5 of the New South Wales Electricity Supply (Safety and Network Management) Regulations 2014 is to regulate the removal and trimming of trees by distributors to minimise damage to or destruction of trees growing under or near power lines. It states that a works owner must not remove any tree, or trim any tree in a way that substantially damage the tree unless:

- the works owner is of the opinion that it is necessary to do so to protect its power lines or the safety of persons or property under or near its power lines
- the works owner has considered alternative methods and is of the opinion that none of those methods are feasible (including economically feasible) in the circumstances, and
- alternative methods include the use of aerial bundled or semi-insulated cables, the controlled trimming of trees and the appropriate location or relocation of power lines (including placing them underground).

The Trees Regulations could require these tests to be met before issuing a Notice.

Regulation 8 of the South Australian Electricity (Principles of Vegetation Clearance) Regulations 2010 sets out a range of principles that must be considered when formulating a vegetation clearance scheme:

- the nature of the vegetation, including its expected rate of growth
- the impact that the clearance work would be likely to have on the amenity of the area
- the historical or biological significance (if any) of the vegetation

[11] International Society of Arboriculture (isa-arbor.com)

- the long-term effect that the clearance work would be likely to have on the health and appearance of the vegetation
- the controls on the planting and nurturing of vegetation applicable in the area
- the need to prevent damage to the power lines and interruption to the supply of electricity and to safeguard the public against electric shock and damage to property, and
- the extant and frequency of past vegetation clearance in the area.

The Trees Regulations could require these matters to have been considered before issuing a Notice. These factors are likely to be easier to apply at a more aggregated level than individual trees.

The weighting given to amenity value of vegetation (for example community or individual value) may also need to be clarified in a risk-based approach. The National Policy Statement on Urban Development (NPS-UD) that came into force on 20 August 2020[12] contains provisions about the meaning and value of "amenity". Policies 6(b) and (c) state:

> When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters:
>
> (b) that the planned urban built form in [the] RMA planning documents may involve significant changes to an area, and those changes:
> (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and

For the Trees Regulations, a risk-based approach could contain elements of the NPS-UD in relation to amenity values.

Education on the identification of these risks will be an important aspect of this option to ensure it can make a successful impact. Development of what factors should be included in the Trees Regulations will need to be clear enough for people who are not using the vegetation for business purposes, such as urban vegetation owners.

The risk-based approach can be overlaid on the status quo but could also be combined with other approaches set out below (and in issue 1) which seek to address risks outside of the current GLZ.

12	What do you think are the most important aspects to include in a risk-based approach methodology? Are there any additional issues that you think should be considered?

[12] National Policy Statement on Urban Development 2020 – Updated May 2022 | Ministry for the Environment

Fire risks

In terms of the potential increase in fire risk from climate change, MBIE consulted with Fire and Emergency New Zealand (FENZ) about whether the Trees Regulation should specifically regulate for fire risk.

New Zealand fire managers expect the country's wildfire risk to increase in the future from climate change (hotter and drier weather), changing fuel loads with land use change to afforestation, and an expanding rural-urban interface, placing more people and property in high fire-risk areas.[13]

MBIE consider that the assessment of this risk, and the relevant factors that contribute to it, should be considered in the Trees Regulations as part of the risk-based approach given the likelihood of fires occurring due to the integration of vegetation and electricity lines and the consequences and the higher risk of serious consequences to the public and security of electricity supply.

13	Do you agree with our view to include the consideration of fire risk in a risk-based approach to vegetation risk, why or why not?

Analysis of Options

Options

MBIE has identified four options for addressing this issue.

Option 1: Risks dealt with through existing risk management tools (Status quo)

The current Regulations already incorporate some elements of a risk-based approach. While the concept of a GLZ does provide for a general rule to be applied, the regulations provide some flexibility to manage lower or higher risks in different ways (for example, through the hazard notice system, and the powers for works owners to address immediate dangers to persons or property).

For reference, from the lowest level of risk to the highest, works owners can do the following under the current regulation (status quo):

- **Notification of trees encroaching notice zone:** r6(1) If a works owner becomes aware of a tree encroaching the notice zone (in effect a buffer zone around the GLZ), that works owner may give a hazard warning notice to the vegetation owner.

[13] Langer, E.R.; Wegner, S.; Pearce, G.; Melia, N.; Luff, N.; Palmer, D. 2021. Adapting and mitigating wildfire risk due to climate change: extending knowledge and best practice: Final report. Scion, Rotorua. Scion Client Report No. 36230991. https://www.ruralfireresearch.co.nz/?a=80922

- **Notification of trees encroaching growth limit zone:** r7(2) if a works owner becomes aware of a tree encroaching the growth limit zone, that works owner must give a cut or trim notice to the vegetation owner.

- **Obligation to remove danger to persons or property from trees damaging conductors:** r14(1) A works owner must, without delay, undertake any work in relation to a tree (including the roots of that tree) if the works owner becomes aware that there is immediate danger to persons or property from a conductor.

    - r14(3) a works owner may cut or trim the tree to the extent necessary to remove the danger but, if the works owner wishes to cut or trim the tree so that it no longer encroaches the notice zone, the works owner must obtain the consent of the vegetation owner

Table 14: Option 1 – 'Risks dealt with through existing risk management tools (Status quo)'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• The current approach appears to lead to more trimming and felling than necessary, yet works owners are not confident that risks are efficiently dealt with.	• The status quo may be less costly than a system which requires a higher level of prescription about risk management.	• The current system does not provide vegetation owners with certainty about the extent to which their vegetation assets will be compromised by remedial action.

Option 2: A risk-based approach overlaid on the existing regime

To fully align the Regulations to a risk-based approach, the current notification system and obligations to remove danger could be enhanced by incorporating a specific risk-based approach to assessing any given risk. Issuing notices would be made subject to having completed a robust risk-based assessment.

Table 15: Option 2 – 'A risk-based approach overlaid on the existing regime'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option can be tailored to fit the individual situation to address the particular risks without removing more vegetation than needed. With some parameters in place on how the risk-based approach is calibrated, this can help achieve balance with the rights of the vegetation owners.	• A risk-based approach could target the specific risks with tailored solutions and reduce the amount of trimming or removal of vegetation to that needed to reduce or mitigate the risk. However, combined with existing elements, it may increase the cost of the system overall.	• It would not provide complete certainty as each situation would be subject to its own assessment, but clear methodology in the Trees Regulations and guidelines would assist with this.

Option 3: A risk-based approach combined with a broad power to address vegetation 'likely to interfere with' electricity lines.

A broad power of this kind is considered above in relation to dealing with risk outside of the GLZ. Risk-based criteria for exercising this power could address some of the uncertainty that such a broad power could otherwise create. Before the power could be exercised, it would have to be demonstrated that a broad range of risk-based considerations had been taken into account.

Table 16: Option 3 – 'A risk-based approach combined with a broad power to address vegetation 'likely to interfere with' electricity lines'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option would address risks outside the GLZ, but also allow a more nuanced approach to trimming and felling vegetation.	• This option would simplify the system in some respects (by introducing a broad power to replace the notice system) but could also introduce some complexities by requiring reference to risk-based criteria.	• It would not provide complete certainty as each situation would be subject to its own assessment, but clear methodology in the Trees Regulations and guidelines would assist with this.

Option 4: A risk-based approach applied outside of the GLZ to support a new notice power.

An option is considered above which would allow works owners to issue notices in relation to fall line risks outside of the GLZ. This could be supported by a risk-based approach, which would reassure vegetation owners that the expansion of the scope of the notice power would be reasonably exercised, and not result in over-trimming or -felling of vegetation

Table 16: Option 4 – 'A risk-based approach applied outside of the GLZ to support a new notice power'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option would address risks outside the GLZ, but also allow a more nuanced approach to trimming and felling vegetation.	• This option would build on the existing system, and would support a sensible extension of the notice system to address risks outside of the GLZ	• It would not provide complete certainty as each situation would be subject to its own assessment, but clear methodology in the Trees Regulations and guidelines would assist with this.

Analysis of Options

MBIE has identified four options to address issue 2. The table below summarises our analysis of the proposed options against the policy assessment criteria:

Table 17: Criteria applied to options to prevent the over-trimming of hazardous vegetation

	Effectiveness (X2)	Efficiency	Regulatory certainty	Overall assessment score/ranking
Option 1: Risks dealt with through existing risk management tools	0	0	0	D
Option 2: A risk-based approach overlaid on the existing regime	+	-	+	C
Option 3: A risk-based approach combined with a broad power to address vegetation 'likely to interfere with' electricity lines	+	+	_	B
Option 4: A risk-based approach that could only be applied outside the GLZ	+	+	+	A

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

Of these options MBIE prefers option 4. This would address the risks outside the GLZ, but apply some clear criteria to limit negative consequences. We think that this option best balances the interests of works owners, in protecting their assets, and vegetation owners, in protecting the value that their vegetation provides to them.

14	What is your preferred option out of the options proposed by MBIE for issue 2, are there any options you would recommend that have not been considered?

Obligation to remove danger to persons or property from trees damaging lines

Under section 14 a works owner must, without delay, undertake any work in relation to a tree (including the roots of that tree) if the works owner becomes aware that there is immediate danger to persons or property from a conductor[14] because the tree has come into contact with, or constitutes a serious hazard to, that conductor; or the tree has caused damage to that conductor and is likely to cause further damage to that conductor. The purpose of this section is to give works owners the ability to respond quickly in an emergency situation.

A works owner may cut or trim the tree to the extent necessary to remove the danger but, if the works owner wishes to cut or trim the tree so that it no longer encroaches the notice zone, the works owner must obtain the consent of the vegetation owner.

The vegetation owner is liable for the direct costs of that work if the tree owner was warned by the works owner of the potential danger created by the tree, before the commencement of these regulations, and has failed to remedy the potential danger; or the tree owner was requested by the works owner to undertake work in relation to the tree, before the commencement of these regulations, and has failed to undertake the work requested; or the tree owner has failed to comply with a cut or trim notice. A works owner may recover any amount payable as a debt due to the works owner.

Given the recent severe weather events in New Zealand and the resulting vegetation damage to electricity distribution networks, MBIE is seeking feedback from stakeholders on whether any changes could be made to section 14 in regard to the obligation for works owners to undertake work if they become aware of vegetation that is an immediate danger to persons or property due to its interaction with a conductor.

15	Do you have any feedback on the Tree Regulations obligation on works owners to remove danger to persons or property from trees damaging conductors?

[14] Where conductor means any wire or cable used or placed in position for the conveyance of electricity; but does not include the wire of any electric fence

Issue 3: How should the Regulation balance the responsibility of vegetation owners and works owners?

During consultation we found that stakeholders did not feel that some aspects of the Regulation fairly balanced the interests of works owners and vegetation owners. Works owners see the Trees Regulations as unfairly allocating much of the work and cost of identifying and managing hazardous vegetation to them and therefore to their customers through higher lines charges. Some vegetation owners consider that the Trees Regulations already benefit the works owners unfairly, given that works pass across their land without any compensation and restrict what they can do with it. Many concerns centre on the burden of responsibility for managing the risks and the costs associated with such.

The Trees Regulations do try to balance the burden of vegetation management between works owners and vegetation owners through, for example, allocating responsibility for the first cut and trim, and providing the ability for landowners or occupiers to declare 'no-interest.' In the absence of these provisions, vegetation owners would be responsible for bearing the costs of all remedial work to address risks.

In our view, it would be difficult to re-allocate responsibilities in a way that would achieve better results than the current regime while avoiding arbitrary re-allocations of cost. However, MBIE has identified areas in the regulation that could be changed to provide further clarification or better balance of responsibility between parties.

In this section we provide an outline of the issues in regard to balance of interests between works owners and vegetation owners and give our perspective on these issues. There are several areas in the Regulation that we believe could benefit from changes or clarifications to improve its standard against our identified criteria.

Summary of issues

Responsibility for the identification of vegetation risk

The existing Trees Regulations effectively allocate the cost and responsibility for identifying risk to works owners (through the notice system). They allocate the cost of remedial action to vegetation owners, except for the first cut or trim of each tree (which works owners pay for and pass on to electricity consumers), unless the vegetation owner declares no-interest in the tree. This balances the cost of managing hazardous vegetation between works owners and vegetation owners.

Vegetation owners would prefer works owners to be responsible and pay for the cost of vegetation management around electricity lines, because the lines and poles belong to the works owners. In some rural areas, landowners are hosting the lines and poles without any payment of an easement. While works owners would generally prefer vegetation owners to be responsible for trimming vegetation, they would consider it an improvement to the current system if features that drive higher administrative costs for them were removed or simplified, e.g., the first trim and 'no-interest' clauses.

There are also concerns from vegetation owners that the management of vegetation around powerlines requires specialist knowledge to understand the risk that powerlines pose to workers in close proximity.

MBIE's view is that works owners should be responsible for identifying hazards both within and outside the GLZ. Works owners best understand the risks of vegetation and lines interaction, and have the necessary specialist knowledge to manage the personnel risks. The level of awareness and understanding of vegetation risks is not the same for all types of vegetation owners, who generally have little understanding of the risks to the electricity network.

16	Do you agree with MBIE's view that responsibility to identify risks sits best with works owners?

Allocation of cost for the first cut or trim

Under the Trees Regulations works owners must meet the reasonable costs of the cutting or trimming referred to in the cut or trim notice and they may cut or trim the tree to the extent necessary to ensure that it does not encroach the notice zone.

The current first cut option is seen as inefficient by works owners, and some consider it has resulted in gaming of the regulation. Some works owners have expressed concern that vegetation owners can exercise the first cut option (i.e., require the works owner to make the first cut) and later declared no-interest, after having benefitted from the ETS while the trees were growing.

This results in much of the ongoing risk and expense of managing hazards from trees being allocated to works owners, not merely in the first instance but over the lifetime of the trees, even though significant benefits could accrue to the vegetation owner. It would also draw out the length of time it takes to address the risk.

In order to remove the potential for this to be exploited, the regulation could be improved so that vegetation owners have to meet a requirement before works owners are allocated the cost. This may be similar to a sub clause for the no-interest notice system. Subclause 4 of the no-interest notice applies if:

- The tree was planted in the vicinity of existing works on or after the commencement of the Tree Regulations
- and at the time of planting, the vegetation owner believed on reasonable grounds that the tree, when fully grown, would not encroach on a growth limit zone.

A similar clause could be included to prevent disingenuous claims for cuts or trims of vegetation that is deemed a risk to power lines. Vegetation owners would still retain the ability to dispute decisions and seek dispensation from notices, as discussed later in the document (Issue 5).

17	Do you agree with MBIE's view that the allocation of the first cut or trim should remain with improvements to its application, and why or why not?

Notice provision on a per tree basis

A key piece of feedback that MBIE received from works owners during consultation is that the current notice system can be administratively cumbersome, as works owners must issue notices on a per tree basis. At times, the risk to lines may come from multiple trees in a close area and therefore works owners must provide multiple notices to identify the risk that each individual tree poses. Naturally sown species such as Manuka, tea tree or bamboo can be difficult to identify on an individual tree basis.

This puts a large administrative burden on works owners to communicate which trees pose a risk to vegetation owners, and as a result this can take more time to remediate the risk. Works owners also need to keep track of the individual trees in which they have covered the cost for the first cut or trim, again adding to the administrative burden.

Stakeholders have proposed that the notification requirement for individual trees should be revised to include options of notification by GPS location, by property, or by overhead line span between numbered poles.

MBIE's view is that the current notice system in the regulation could be improved to make it easier for works owners to identify and give notice to vegetation owners if multiple trees are identified to be a risk to electricity lines. This could be through allowing notice to be given on trees via GPS location, identifying trees by reference to spans between numbered poles or identifying them by property reference. It would improve the efficiency of the regulation if it were made easier for works owners to give notice on multiple trees in a rural setting. This could also give scope to apply the risk-based approach in the same way.

18	Is there a way to apply the notice system at a higher level than the individual tree?

Options

With the above issues in mind, MBIE has identified the following three options.

Option 1: Keep the current balance of responsibilities (status quo)

The current regulation has some balance between the interests and allocation of responsibility for vegetation owners and works owners. Under the status quo works owners are responsible for identifying risk and issuing notices on a per tree basis when vegetation enters or approaches the GLZ.

Allocation of the first cut or trim would continue to be allocated to works owners in order to balance the costs associated with addressing hazardous vegetation. Costs for further cuts or

trims would then be allocated to the vegetation owners. MBIE note that there is no requirement in the Trees Regulations that allocates responsibility for keeping track of which vegetation has been the subject of a first cut or trim notice - by default it is often the works owners who keep a record of this information.

The Trees Regulations will continue to give vegetation owners the ability to declare no-interest in hazardous vegetation that come under their ownership if they meet the requirements of the no-interest subclauses. Responsibility for addressing hazardous vegetation and the cost for doing so would then become the works owner's responsibility.

Table 18: Option 1 – 'Keep the current balance of responsibilities (status quo)'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• Arguably there is some arbitrariness in how costs are allocated across the system, but costs are shared between vegetation owners and works owners.	• While the Regulation under the status quo does result in hazardous vegetation being addressed, the way the existing notice system is enforced and the allocation of the first cut or trim to works owners adds to the administrative burden and adds additional time until a risk is mitigated.	• While there is some certainty on who is responsible for identifying risk and the allocation of costs involved, there is no regulatory certainty on who should be keeping a record of trees that have been cut or trimmed.

While the status quo does provide balance in responsibilities between parties, not addressing the issues that have been raised could be costly and pose a risk to the security of electricity supply and safety of the public. The inefficiencies that have been identified in the status quo lead to more time spent working through the administrative aspects of the Regulation before risks are mitigated.

Option 2: Make clarifications to the existing balance of measures in the Regulation

This option involves amending the Regulation to provide clarification of responsibilities between parties that would improve the efficiency of its application. Currently works owners are responsible for giving notice to vegetation owners when vegetation encroaches on or approaches the GLZ.

MBIE's view is that the first trim cost allocation should remain in the interest of balancing costs between works owners and vegetation owners. We propose to add a subclause to section 11 of the Regulation that limits the circumstances in which the works owner is responsible for the first trim.

Under this option the way that a notice refers to hazardous vegetation could also be amended so that works owners can give notice to multiple items of vegetation that have been assessed as hazardous. While the exact method is being consulted on in a previous question, an improvement to how the notice system is implemented could make the process less administratively cumbersome for works owners.

Table 19: Option 2 – 'Make clarifications to the existing balance measures in the Regulation'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• Works owners have a better understanding of the risk of contact between electricity lines and vegetation, and are best placed to identify these risks in, and outside, of the GLZ. • Clarifications to the Regulation should improve the speed in which risks are identified and mitigated, resulting in a secure electricity supply, and improved public safety.	• The proposed additions and amendments should improve the efficiency of the notice system and ease the administrative costs of identifying risks and issuing notices. • Clarifications to the regulation should enable risks to be identified and addressed faster.	• Clarifications in the Regulation on responsibilities should give more regulatory certainty.

In our view this option balances responsibilities between works owners and vegetation owners. Adding the subclause requirements to the first cut allocation would restrict disingenuous use of this requirement. Amendments to the regulation to enable works owners to provide notice to multiple vegetation risks in one notice would ease the administrative burden of doing so.

Option 3: Make clarifications to the Regulation but the requirement for the allocation of the costs of the cut or trim is removed

This option is similar to option 2 in that we propose there should be clarifications to the regulation in order to improve the efficiency of the notice system, but the allocation of the cost of the first cut or trim to the works owner would be entirely removed. Removing the cost allocation of the first cut or trim allocation from the Regulation would remove a step in the process for addressing hazardous vegetation. Its removal can potentially save works owners time and reduce administrative costs as they would no longer need to keep a record of which trees have been covered by this allocation.

Under this option vegetation owners would be required to meet the reasonable costs or cutting or trimming the vegetation referred to in the notice, regardless of whether it is the first or subsequent notice received. While this requirement does spread costs between works and vegetation owners, it is somewhat arbitrary. Arguably, it was intended to deal with legacy issues, in that vegetation owners may not have had sufficient notice to assume full responsibility for managing the costs of the regime. However, with the passage of time since the Trees Regulations came into force, that argument has been eroded as legacy forests are felled, and in any case, better planting and vegetation management practices should mean the legacy issues have become less important.

Table 20: Option 3 – 'Make clarifications but first cut or trim allocation is removed

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• Clarifications to the Regulation should improve the speed in which risks are identified and mitigated, resulting in a secure electricity supply, and improved public safety.	• The proposed removal of the first cut allocation and amendments to the notice system should ease the administrative costs of identifying risks and issuing notices. • Clarifications to the regulation should enable risks to be identified and addressed faster	• Clarifications in the Regulation on responsibilities should give more regulatory certainty.

We consider that while this option could reduce the amount of time it takes to address risks that have been identified, it removes an element of balance as vegetation owners would always be required to meet the costs for trimming or felling hazardous vegetation.

Analysis of options

MBIE has identified two options to address issue 3. The table below summarises our analysis of the proposed options against the policy assessment criteria:

Table 21: Criteria applied to options for "balancing responsibility"

	Effectiveness (X2)	Efficiency	Regulatory certainty	Overall assessment score/ranking
Option 1: Keep the current balance of responsibilities (status quo)	0	0	0	B
Option 2: Make clarifications to the existing balance measures in the Regulation	+	++	+	A=
Option 3: Make clarifications but the requirement for the allocation of the costs of the cut or trim is removed	+	++	+	A=

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

MBIE has assessed that both option 2 and 3 would have similar outcomes against the policy assessment criteria. Both options would improve the effectiveness of the regulation compared to the status quo and would result in improvements to the administrative burden on works owners.

Of the two options, MBIE prefers option 2 as it retains some balance in regard to the sharing of costs associated with managing hazardous vegetation. While option 3 could save time and administrative expense for works owners, the allocation for meeting the costs of the first cut or trim to works owners recognises that vegetation and landowners whose land the works pass through must sacrifice an amount of economic value.

19	What is your preferred option out of the options proposed by MBIE for issue 3, are there any options you would recommend that have not been considered?

Issue 4: What should be the process for works owners to access vegetation on private land?

Under section 23 of the Electricity Act 1992, works owners can enter a private property to inspect, maintain or operate existing works (those built, or which had begun being built prior to 1992). This right does not expressly extend to the management of trees.

However, regulation 14 of the Trees Regulations places an obligation on lines owner to act, without delay, to undertake any work in relation to a tree (including the roots of that tree) if the works owner becomes aware that there is immediate danger to persons or property from a conductor because of a tree. EDBs have generally interpreted this as meaning they are entitled to access land only in emergencies.

Summary of key stakeholder views

Works owners have said they often have trouble in identifying or contacting vegetation owners because the landowner is sometimes different from the occupier of the land or owner of the trees. In some cases, vegetation owners may be offshore investors, and the vegetation may be on the same land as other vegetation that is owned by other offshore investors. This further complicates the process for works owners to address hazardous vegetation. Works owners have argued that they should be able to gain access to the property to assess or manage the vegetation after reasonable endeavours to contact the vegetation owner.

Vegetation owners and property owners generally do not want works owners coming onto their land more than is absolutely necessary. In rural areas, vegetation owners are also often concerned about the biosecurity risks of foreign vegetation or dirt on works owners' vehicles coming onto their land.

Options

MBIE has identified three options for addressing this issue.

Option 1: Vegetation or landowner must be notified (the status quo)

In the existing Trees Regulations, works owners may need to gain access to vegetation on private property if they are assessing tree growth around a line, conducting the first trim, or where the vegetation owner has declared "no-interest" in a tree.

Regulation 11(3)(e) concerns entry onto private land to implement a "first trim". In the case where entry on to the tree owner's property is necessary to effect the cutting or trimming, the works owner must obtain the consent of the tree owner to enter the tree owner's property, and before the relevant "first trim" can be done. It is not sufficient to obtain the land occupier's (tenant's) permission.

By contrast, where a works owner receives a notice of no-interest in a tree from the landowner or occupier, the works owner must first obtain permission from the *landowner or occupier* to enter the land before trimming the tree. So, this section of the regulation does not have the

same operational issues as section 11(3)(e) for works owners. It is likely that *landowner or occupier* is used in this context, as for a vegetation owner to give a no-interest notice, it is likely that the works owner will have already been in contact with them.

Table 22: Option 1 – 'Vegetation owner must be notified (the status quo)'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• In first trim situations, access to trees may not be possible if the tree owner does not own the land the trees are growing on as they may be difficult to contact in order to obtain access, resulting in reduced security of electricity supply. • In situations where the tree owner also owns the land that they are on, works owners are likely to have an easier time accessing the property to complete a first trim.	• This option can be costly because sometimes works owners cannot contact tree owners (where they do not own that land), so they need to keep spending time and money pursuing them.	• It is clear whose consent is required in each situation (although sometimes difficult in practice).

Under Option 1, works owners do not have any additional ability beyond the current Trees Regulations settings to access private property to assess or manage vegetation close to their lines.

Option 2: Amend the notification wording in regulation 11(3)(e) to make it easier for works owners to notify vegetation owners about land access

Under Option 2, the notification wording in regulation 11(3)(e) relating to first trim notices would be amended to be similar to regulation 16(2), which states:

> Subject to regulation 17, if a works owner receives a no-interest tree notice, the works owner may cause the tree to be removed or trimmed to an extent determined by the works owner if the works owner first obtains permission to enter the land on which the tree is growing from the *owner or occupier* who gave the notice.

This would mean that for 'first trims", the works owner could also obtain the consent of the *landowner or occupier* to enter the land before trimming the tree.

Table 23: Option 2 – 'Amend the notification wording in regulation 11(3)(e)'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option would by improve works owners' access to vegetation, enabling them to better manage vegetation risks to the security of electricity supply.	• The ability to assess or manage vegetation risks on private land more promptly would result in less costs being passed on to electricity consumers.	• It would be clear whose consent is required in which situation.

Landowners may be easier to contact and will be able to pass information to the vegetation owners.

Option 3: Works owners can apply to access land if reasonable effort has been made to contact vegetation owners

Under this option, works owners could apply to a court to access land in order to maintain their assets if they can prove that they have made a reasonable effort to contact vegetation owners. After proof of reasonable endeavours have been provided, a court may be able to grant works owners access similar to their powers under the Property Law Act 2007:

> A person may apply to a court for an order under section 320 if the person is an owner or occupier of any land who wishes to enter onto or over any neighbouring land for any of the following purposes:
>
> - to erect, repair, alter, add to, paint, or demolish the whole or any part of any structure on the applicant's land; or
> - to do any other necessary or desirable thing in relation to the applicant's land.

Under this Act the Court also has the power to order the removal or trimming of trees or the removal or alteration of structures. This section has been used on many occasions in relation to neighbour disputes, for example, the blocking of light, sunlight or view, which can be related to health issues or the undue influence on the enjoyment of an owner's property.

A similar power could be granted to courts to authorise works owners to access land in order to maintain their assets if it has been identified that the works are at risk from vegetation.

Table 24: Option 3 – 'works owners can apply to access land if reasonable effort has been made'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• This option would improve works owners' access to vegetation, enabling them to better manage vegetation risks to the security of electricity supply.	• Making a reasonable effort to give notice to vegetation owners as well as the process for applying for court authorisation would result in administrative time and cost to works owners.	• It would not be clear whose consent is required and would be up to the court in each circumstance

This option would likely require more administrative cost and effort for works owners in order to obtain authorisation to enter property. Works owners would also still be required try to contact vegetation owners to a level that would be considered reasonable enough to resort to apply for court authorisation, which would take time. There is also the risk that if vegetation or landowners are not contacted, works owners may not be aware of the biosecurity risks of accessing the property.

Analysis of Options

MBIE has identified two options to address issue 4. The table below summarises our analysis of the proposed options against the policy assessment criteria:

Table 25: Criteria applied to options for "access to land"

	Effectiveness (X2)	Efficiency	Regulatory certainty	Overall assessment score/ranking
Option 1: Vegetation owner must be notified (status quo)	0	0	0	B
Option 2: Amend the notification wording in regulation 11(3)(e) to make it easier for works owners to notify vegetation owners about land access	+	+	0	A
Option 3: Works owners can apply to access land if reasonable effort has been made to contact vegetation owners	+	-	-	C

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

MBIE prefer option 2 as it would result in less administration time and cost for works owners to track down individual vegetation owners. We also note that landowners will likely have knowledge of the biosecurity requirements of their land or will be in a good position to request this information from vegetation owners on behalf of works owners. While option 3 would help works owners, it will be difficult to determine the level of 'reasonable effort' and puts the biosecurity of the personnel and property at risk if works owners access the land and are not aware of the risk.

20	What is your preferred option out of the options proposed by MBIE for issue 3? Are there any options you would recommend that have not been considered?

Issue 5: How should disputes between vegetation and works owners be resolved?

Under regulation 19 of the existing Trees Regulations, vegetation owners can request "dispensation" (an exemption from trimming a tree, as long as it does not encroach the GLZ) following the issuing of a hazard warning notice or cut or trim notice to it by a works owner. Vegetation owners may apply to an arbitrator to determine a dispute between the vegetation owner and a works owner if:

- the works owner has refused to grant a dispensation and the vegetation owner believes that a dispensation should have been granted; or
- the works owner has granted a dispensation under that regulation, but the vegetation owner does not agree with the terms of that dispensation.

The functions of an arbitrator are to hear and determine disputes between vegetation owners and works owners, but dispensation is the only matter that an arbitrator can adjudicate on under the Trees Regulations.

The narrow scope of the arbitration provisions was noted by Justice Williams in a case involving Marlborough Lines:[15]

> This [dispute over the issue of a no-interest notice] is exactly the sort of issue that the arbitration regime established by regulations should be expressly empowered to address. As the regime presently stands, the arbitrator's decision can affect a range of matters, but the arbitration itself can only be triggered by a dispensation decision. … A wider role for arbitrators is not precluded by section 169 of the Electricity Act, which generally empowers regulations providing "for arbitrators for the purposes of this Act or any regulations made under this section".

The arbitration mechanism in the Trees Regulations has had little use since the regulations became law in 2003. Initially the Government appointed two arbitrators on retainers. As they only adjudicated over a handful of cases over a number of years, the number of arbitrators was reduced to one. The current arbitrator has not adjudicated any arbitrations but provides occasional advice on the interpretation of the Trees Regulations.

The costs of the tree arbitrator are met by the Government in accordance with the Fees and Travelling Allowances Act 1951, and the provisions of that Act apply as if an arbitrator were a member of a statutory board.

Utilities Disputes

If the dispute does not qualify for arbitration or vegetation owners do not wish to pursue arbitration, they would also have the existing option of taking a complaint to Utilities Disputes Tautohetohe Whaipainga (the UDL) who have heard more than 90 complaints from individuals in relation to the Trees Regulations since the inception of the Regulations.

[15] *Marlborough Lines Limited v Alasdair Cassels* [2012] NZHC 9, para 45.

UDL provide free and independent dispute resolution at the request of individuals (but not electricity distributors or retailers) under their electricity disputes scheme, which all distributors and retailers of electricity are required to join. Complainants can ask the UDL Commissioner to make a recommendation where the vegetation owner's complaint cannot be resolved between the parties.

If distributors and retailers do not accept a recommendation of the UDL Commissioner[16], the Commissioner may make a binding determination. If a complainant does not accept the Commissioner's recommendation, they can lodge a claim with the Disputes Tribunal or go through the court system.

Utilities Disputes also use other dispute resolution techniques, including mediation and conciliation, and most disputes that come to them are resolved between the parties.

Mediation

Some of the iwi organisations we consulted stated their preference for a dispute process that includes a mediation process that is not run like a court process – it would have:

- The ability to choose an appropriately qualified independent mediator.
- Sufficient time to choose a mediator, hold a meeting and respond.
- The ability for parties to agree to be bound by the mediator's decision or appeal.
- An arbitration process could follow on points of law, if a mediated decision could not be reached.

MBIE considers that this proposal has merit as an option and would not preclude arbitration if needed.

Summary of key stakeholder views

Some stakeholders said the arbitration provisions are cumbersome, but neither vegetation nor works owners had many other comments to make about them.

Options

MBIE has identified three options for addressing this issue.

Option 1: Status quo – limited scope of arbitration provisions

Under Option 1, the arbitration provisions in the Trees Regulations would remain the same, with limited jurisdiction where dispensation is the only matter that an arbitrator can adjudicate on under the Trees Regulations.

[16] Our people (utilitiesdisputes.co.nz)

Table 26: Option 1 – 'limited scope of arbitration provisions (the status quo)'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• The lack of an effective dispute resolution mechanism is likely to reduce vegetation owners' confidence. This may result in more vegetation owners objecting to notices by works owners of necessary risk management, affecting the security of electricity supply across the network as the vegetation continues to grow.	• The administration costs to the Government are negligible in retaining the current arbitrator, but there are also no real dispute resolution benefits to the status quo settings as they are of limited use.	• While the Trees Regulations are clear about the limited jurisdiction of the arbitrator, there is uncertainty about how parties should resolve other disputes under the Trees Regulations.

Option 2: Extend the scope of the current arbitrator's jurisdiction

Under Option 2, the Trees Regulations would give the arbitrator jurisdiction to resolve any dispute between parties. With the scope of the arbitrator's jurisdiction extended, vegetation owners would be able to apply to the arbitrator once a notice detailing the identified hazardous vegetation has been received and if they disagree with the works owner's assessment.

The scope of the arbitrator's role could also be extended to consider disputes after vegetation has been trimmed by works owners if it was an immediate danger to persons or property from a conductor. If vegetation owners believe that this was not the case or that works owners over-trimmed the vegetation, they could raise this dispute with the works owner and arbitrator under the Regulation.

Table 27: Option 2 – 'Extend the scope of the current arbitrator's jurisdiction'

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• Over time, the arbitrator(s)' decisions could establish precedent, which would help with the outcomes of promoting secure electricity supply and public safety. This option would also be balanced because it would help ensure that vegetation owners and works owners had equal access to dispute resolution.	• With an expanded jurisdiction, it is likely that the Government would need to retain additional arbitrators to keep up with demand, but there would also be corresponding security of supply and public safety benefits. The arbitrator would need specialist arborist skills, which would help save the parties money on contracting in specialist advice.	• Being able to request arbitration on any matter under the Trees Regulations would provide parties with greater certainty of being able to assert their rights and responsibilities, but may make the ultimate outcomes less clear.

Expanding the arbitrator's jurisdiction could result in their involvement in disputes much sooner than they would under the status quo. As a result, these disputes may be assessed and resolved much faster than they would if the arbitrator only became involved after a dispensation offer had been rejected.

We assess that this option is likely to result in an increased use of the of arbitrator's services due to the lower threshold required for them to become involved in disputes. This would result in an increased cost to the Government and may have budget implications depending on the level of additional demand.

Option 3: Use Utilities Disputes or mediation to solve disputes

Under option 3, disputes could instead be referred to UDL or other mediation methods, and the arbitration mechanism could be removed from the regulation. UDL already has experience in hearing complaints in regard to the Regulation and have previously provided recommendations on disputes. UDL uses a wide range of dispute resolution techniques, including mediation and conciliation. All distributors and retailers of electricity are required to join the electricity disputes scheme.

Table 28: Option 3 – 'Use Utilities Disputes or mediation to solve disputes

Criterion (i): Effectiveness	Criterion (ii): Efficiency	Criterion (iii): Regulatory certainty
• UDL and other mediation methods may not have the specialist arboriculture knowledge, that under the regulation the arbitrator must have, to understand the specific risks related to vegetation and electricity line interaction.	• UDL is more geared toward the average consumer, so while it may help urban vegetation owners it may not work well for businesses such as those in the forestry sector. • Works owners and vegetation owners would have to bear the full cost of resolving disputes, which may disincentivise vegetation owners to dispute decisions.	• Under this option there would be little regulatory certainty or guidance for solving disputes

MBIE assess that UDL can provide advice or decisions in regard interpreting the regulation to cases that have been raised to them. It does not however have the specialist arboriculture knowledge that a tree arbitrator must have to assess and give advice on whether vegetation does or does not constitute as a hazard. This knowledge is required to assess if dispensation should be granted or varied so that vegetation can remain in the GLZ, which would be inappropriate for UDL to arbitrate on unless they had a dedicated resource for this subject.

Under this option works and vegetation owners would also be responsible for organising mediation through UDL and would need to cover the full cost for doing so. Independent arborist advice may need to be sought in order to provide a recommendation for disputes.

This may deter vegetation owners from raising a dispute if the cost of doing so is deemed to be too prohibitive.

Analysis of options

MBIE has identified two options to address issue 5. The table below summarises our analysis of the proposed options against the policy assessment criteria:

Table 29: Criteria applied to options for "dispute resolution"

	Effectiveness (X2)	Efficiency	Regulatory certainty	Overall assessment score/ranking
Option 1: restricted role of arbitrator (status quo)	0	0	0	B
Option 2: Extend the scope of the current arbitrator's jurisdiction	++	+	0	A
Option 3: Use Utilities Disputes or mediation to solve disputes	0	-	-	C

- Not as good as SQ 0 Same as SQ + A little better than SQ ++ A lot better than SQ

MBIE prefers option 2 as expanding the scope of the arbitrator's jurisdiction would allow them to provide recommendations to a wider range of disputes and can be approached sooner in the process. We prefer this over option 3, as if the costs of the arbitrator are covered by the Government, vegetation owners are more likely to have more confidence in the system and will not be disincentivised by costs.

The arbitrator also has specialist knowledge that enables them to give recommendations outside of just interpreting the regulation. This does not prevent vegetation owners from taking their complaint to UDL as they will still have the ability to make recommendations on how the regulation is applied.

21	What is your preferred option out of the options proposed by MBIE for issue 4, are there any options you would recommend that have not been considered?

Offences and penalties

The existing offences and their corresponding penalties are civil penalties that works or vegetation owners can enforce against each other in the court system, including in the Disputes Tribunal. MBIE understands that these have not been enforced by parties before, but completely removing them is undesirable, as there would be few incentives for compliance.

Ongoing penalties have not generally been included in statutes since around 2004 due to concerns they can be disproportionately severe because it is unclear how much a person could be liable for. If normal penalty provisions are used instead, then the fact that an offence was ongoing could be considered an aggravating factor, which could result in a higher penalty being imposed.

22	Do you consider that ongoing penalties are a useful element of the current regulatory regime?

Arrangements for monitoring, evaluation and review

A number of the recommended options for amendment would require further monitoring and evaluation. MBIE is best placed to monitor this by consulting with key stakeholders, the arbitrator(s) and Utilities Disputes.

In any event, MBIE would plan to review the new Trees Regulations in due course after they become law, including reviewing the data on the impacts of climate change on vegetation around lines.

23	Do you have any comments on our proposals for monitoring, evaluating and reviewing the Trees Regulations, for example when a review of the new Trees Regulations should occur?

24	Do you have any additional feedback that you would like to provide on the regulation or the options we have proposed?

Annex 1: Recap of questions

1. Do you agree with the issues that MBIE has identified with the regulation? Why, or why not?
2. What considerations do you believe the Trees Regulations should have in respect to Te Tiriti?
3. Do you think that the Trees Regulations should restrict the distance in which new trees can be planted or replanted in proximity to electricity lines?
4. Arguably the judgement in Nottingham Forest Trustee Ltd v Unison Networks Ltd has decisively clarified the responsibility for managing the fall line risk outside of the GLZ. Do you agree, and if so, is further government intervention necessary to address this risk?
5. Do you agree with our preferred objectives of the Regulation, why or why not?
6. Do you agree with our policy assessment criteria, why or why not?
7. What are your thoughts on extending the GLZ to cover a larger area, what would be the appropriate distance for the extension and how might this affect you?
8. Would a 'likely to interfere with' approach work if 'likely interference' were clearly defined and limited in the regulation? What would this look like to you?
9. Would a 'likely to interfere with' approach work if combined with a risk-based approach?
10. What is your preferred option out of the options proposed by MBIE for issue 1? Are there any options you would recommend that have not been considered?
11. How do you think a risk-based approach in the Regulation to managing vegetation could be implemented and enforced?
12. What do you think are the most important aspects to include in a risk-based approach methodology? Are there any additional issues that you think should be considered?
13. Do you agree with our view to include the consideration of fire risk in a risk-based approach to vegetation risk, why or why not?
14. What is your preferred option out of the options proposed by MBIE for issue 2, are there any options you would recommend that have not been considered?
15. Do you have any feedback on the Tree Regulations obligation on works owners to remove danger to persons or property from trees damaging conductors?
16. Do you agree with MBIE's view that responsibility to identify risks sits best with works owners?
17. Do you agree with MBIE's view that the allocation of the first cut or trim should remain with improvements to its application, and why or why not?
18. Is there a way to apply the notice system at a higher level than the individual tree?
19. What is your preferred option out of the options proposed by MBIE for issue 3, are there any options you would recommend that have not been considered?

20. What is your preferred option out of the options proposed by MBIE for issue 3? Are there any options you would recommend that have not been considered?

21. What is your preferred option out of the options proposed by MBIE for issue 4, are there any options you would recommend that have not been considered?

22. Do you consider that ongoing penalties are a useful element of the current regulatory regime?

23. Do you have any comments on our proposals for monitoring, evaluating and reviewing the Trees Regulations, for example when a review of the new Trees Regulations should occur?

24. Do you have any additional feedback that you would like to provide on the regulation or the options we have proposed?

Te Kāwanatanga o Aotearoa
New Zealand Government

BRM 9082