Section 42A Report

Addendum

Renewable Electricity Generation

Prepared for the

Proposed Kaipara District Plan

Report prepared by: Jerome Wyeth

17 March 2026

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1. Introduction

1. This report is an addendum to my section 42A report on the Renewable Electricity Generation (**REG**) Chapter in the Kaipara Proposed District Plan (**PDP**), to be heard at Hearing 9 scheduled for Tuesday 24 March 2026. I have prepared this addendum as the author of the section 42A report for the REG Chapter (**the section 42A report**).

2. I do not repeat the background information contained in Section 1 – Introduction of the section 42A report and request that the Hearings Panel take this as read.

2. Purpose of Report

3. The purpose of this report is to respond to the evidence and rebuttal received on behalf of the Director General of Conservation (**DOC**) and Northpower Limited and Northpower Fibre Limited (**Northpower**) on the section 42A report. This report in intended to assist the Hearing Panel understand the evidence that has been received and whether it alters my recommendations in the section 42A report in advance of the hearing.

3. Consideration of hearing statements

4. The following evidence has been lodged on the REG Chapter and the section 42A report:

    a. DOC [304]: Statement of evidence and rebuttal evidence from Mr Ronan Whitelock (planning)

    b. Northpower [283]:

        i. Statement of evidence from Ms Andrea Greenhalgh (corporate)

        ii. Statement of evidence from Mr David Badham (planning).

5. I have used the following mark-ups in the provisions to distinguish between the recommendations made in the section 42A report and my revised recommendations in this addendum (as set out in Appendix A of this report):

    a. Section 42A report recommendations are shown in red text (with underline for new text and ~~strikethrough~~ for deleted text); and

    b. Revised recommendations from this addendum are shown in purple text (with underline for new text and ~~strikethrough~~ for deleted text).

6. For all other submission points not addressed in this report, I maintain my recommendations as set out in the section 42A report. I will review my recommendations on submissions set out in Appendix A of the section 42A report in my Right of Reply report once the hearing is complete.

4. Topic 1: REG objectives and policies

4.1 Summary of evidence received

7. Primary evidence was received from Mr Whitelock on behalf of DOC and Mr Badham on behalf of Northpower relating to several REG objectives and policies as follows.

REG-O3

8. Mr Whitelock considers that clearer direction is required as to what "appropriately managing effects" means, given that the direction in Policy F of the amended NPS-REG directs that *"the adverse effects of REG assets and activities **must**,* [Mr Whitelock's emphasis] *where practicable, be avoided, remedied, or mitigated*". Mr Whitelock also considers that clear direction in REG-O3 on effects management is important for plan users to understand how to implement REG-P4.

9. Mr Badham supports my recommendation to amend the objective titles from "renewable electricity generation" to "renewable electricity generation activities". However, Mr Badham notes that this amendment has not been made to the title of REG-O3 and considers that this error should be addressed.

REG-P2

10. Mr Badham disagrees with my position on REG-P2 in the section 42A report that a specific reference to "repair" in the policy is unnecessary. Mr Badham acknowledges that the definition of REG activities in the amended NPS-REG does not specifically include the term "repair". However, Mr Badham considers that an explicit reference to "repair" provides greater clarity and certainty for REG operators, removes interpretation ambiguity and supports REG activities being able to operate reliably. Mr Badham also notes that "repair" is included in the wording of REG-R2 and it is unclear why this is considered appropriate for the rule but not the supporting policy.

REG-P4

11. Mr Whitelock considers that clause (2) in Policy F of the amended NPS-REG provides clear direction that where REG activities are to be located within, or are likely to have adverse effects on, environments and values provided in section 6 of the RMA, the NPS-REG must be read alongside other national, regional and district plan provisions that provide for those environments or values. Mr Whitelock disagrees with my position in the section 42A report that it unnecessary for that clause to be repeated within REG-P4, as the overview already clarifies this. Rather Mr

Whitelock requests that the wording in clause (2) of the amended NPS-REG is repeated in full in REG-P4.

12. The requested amendments by Mr Whitelock also include deleting the second clause that I recommended for REG-P4 "ensuring that the adverse effects are avoided, remedied or mitigated". However, the rationale for this requested amendment is unclear as the new wording in green for clause (2) in REG-P4 does not appear to be in place of my recommended wording.

4.2 Analysis

REG-O3

13. I disagree with Mr Whitelock that additional clarity is needed for the reference to "appropriately managing effects" of REG activities in the context of REG-O3. Objectives in a district plan are intended to be higher level and set direction on the outcomes to be achieved – it is the role of the policies to provide more specificity on how those outcomes are to be achieved. This commonly includes providing more direction on how to manage adverse effects, as opposed to that direction being provided in the objective itself. As pointed out by Mr Whitelock, REG-P4 gives effect to REG-O3 and, in my view, it is appropriate for this policy to provide more specific direction on how to manage the adverse effects of REG activities consistent with the approach of the amended NPS-REG (i.e. Policy F provides the more specific direction while the NPS-REG objective refers to managing adverse effects more generally).

14. However, I agree with Mr Badham that the title of REG-O3 should be amended to include the word "activities' to align with the terminology used in the other objective titles and recommend it is amended accordingly.

REG-P2

15. I maintain my position in the section 42A report with respect to REG-P2 that it is not necessary to refer to "repair" in REG-P2. More specifically, the wording I recommend in the section 42A report aligns with the definition of REG activities in the NPS-REG, which does not use the word "repair", instead relying in my view on the word "maintenance" to capture the need for repairs to keep REG assets operational. I acknowledge the point from Mr Badham that the word "repair" is used in REG-R2, which creates an inconsistency with REG-P2. However, my preference for addressing this inconsistency is a consequential amendment to REG-R2 to remove the word "repair" as opposed to inserting it into REG-P2, which also ensures that both provisions are better aligned with the amended NPS-REG.

REG-P4

16. I retain the position in the section 42A report that REG-P4 does not need an additional clause that restates the full wording of Policy F in the amended NPS-REG, as requested by Mr Whitelock. The REG Chapter is not the only chapter in the PDP where policy direction must be read alongside other national, regional and district plan provisions that manage environments and values provided for in section 6(c), or other section 6 matters of national importance. Introducing this type of direction in REG-P4 would result in the REG Chapter being inconsistent with other PDP chapters, such as the Infrastructure Chapter, which also require consideration of "overlay" chapters in the PDP that that manage environments and values provided for under section 6 of the RMA. It would also result in unnecessary and potentially confusing cross-referencing within the policies and the agreed approach to address these interactions is through the overview and advice notes, as I discussed in detail in the section 42A report.

17. I do not recommend that the reference to "ensuring that the adverse effects are avoided, remedied or mitigated" in clause (2) of REG-P4 is deleted as requested by Mr Whitelock (if that was the intent). This clause is intended to align with, and give effect to, Policy F(3) in the amended NPS-REG and ensures that there is general direction to avoid, remedy and mitigate the adverse effects of REG activities where practicable in addition to the more specific and directive effects management policies in the overlay chapters that may apply where relevant.

4.3 Recommendations

18. I recommend that:

    a. The title of REG-O3 is amended to state "Managing adverse effects of renewable electricity generation activities".

    b. The word "repair" is deleted from REG-R2.

5. Topic 2: Matters of control and discretion relating to indigenous biodiversity

19. Mr Whitelock on behalf of DOC highlights a potential issue with my recommendation to include a reference to "indigenous fauna and ecosystems" in the matters of control and discretion in the REG Chapter. This is because a strict interpretation of this matter may exclude consideration of effects on indigenous flora. As an alternative, Mr Whitelock recommended that this is replaced with "ecosystems and indigenous biodiversity" as both "ecosystems" and "indigenous biodiversity" are defined terms and clearly capture indigenous fauna and flora. For consistency,

Mr Whitelock requests that this wording is used in the matters of control for REG-R7 and the matters of discretion in REG-R1, REG-R3, REG-R4, REG-R5, REG-R6 and REG-R8[1].

5.1 Analysis

20. I agree with Mr Whitelock that the phrase "indigenous fauna and ecosystems" could be interpreted to exclude indigenous flora. The focus on fauna was intended to recognise that REG activities can have adverse effects on indigenous fauna (e.g. bird strike from wind turbines) whereas the rules in the Ecosystem and Indigenous Biodiversity Chapter are focused on indigenous vegetation clearance. However, I acknowledge that REG activities may not always require resource consent under the Ecosystem and Indigenous Biodiversity Chapter and therefore a broader reference "ecosystems and indigenous biodiversity" better captures the range of potential adverse effects that REG activities can have on indigenous biodiversity. I also agree with Mr Whitelock that it is preferrable to use terms that are defined in the PDP and therefore recommend that the words "ecosystems and indigenous biodiversity" are used consistently in the matters of control and discretion in the REG Chapter.

5.2 Recommendations

21. I recommend that the phrase "~~indigenous fauna and ecosystems~~" is deleted and replaced with "ecosystems and indigenous biodiversity" in the matters of control and discretion for REG-R7 and the matters of discretion in REG-R1, REG-R3, REG-R4, REG-R5, REG-R6 and REG-R8.

6. Topic 3: REG-R7 – Community-scale REG activities

6.1 Summary of evidence received

22. Mr Badham, on behalf of Northpower, does not agree with my recommendations to retain the controlled activity status for community-scale REG activities in REG-R7 and to restrict the controlled activity pathway to certain zones. Mr Badham maintains the view that a permitted activity status that applies in all zones is more appropriate and is better aligned with the amended NPS-REG. More specifically, Mr Badham is of the view that:

    a. Policy C(1) of the amended NPS-REG requires a district plan to "recognise and provide for" the operational need or functional need or REG activities without a need to assess alternative sites, which Mr Badham interprets to mean district plans must remove unnecessary consenting hurdles wherever REG activities may feasibly occur.

[1] If a restricted discretionary activity status is retained for REG-R8, as discussed further under Topic 4 below.

b. Policy F of the amended NPS-REG directs district plans to enable REG activities in all locations and environments as well as signalling an acceptance of residual adverse effects by directing decision-makers to consider offsetting or compensation. Mr Badham considers that policy represents a deliberate shift toward an enabling effects-based framework that facilitates, rather than constrains, REG activities.

c. A controlled activity might provide certainty for applicants, but it still results in additional costs and delays with no immediate apparent benefit.

d. Controlled activities are not a part of the upcoming Planning Bill, which signals a clear policy shift towards a four-category consenting framework.

e. The notified standards in REG-R7, together with the provisions in the relevant overlay chapters, already provide an appropriate and comprehensive framework for managing potential adverse effects.

23. Mr Badham acknowledges that a permitted activity status is not appropriate in all zones, so proposes a tiered approach:

a. **General rural zone, Light industrial zone, Heavy industrial zone, Māori purpose zone** – permitted subject to the existing matters in REG-R7.1, otherwise restricted discretionary activity.

b. **All other zones** – a restricted discretionary activity retaining the existing matters of discretion.

24. Mr Whitelock, on behalf of DOC, notes that the matters of control that were notified for REG-R7 have been omitted from Appendix B of my section 42A report, which appears to be an error. Mr Whitelock requests that these matters of control are reinstated as notified, plus a new clause for "ecosystems and indigenous biodiversity" as discussed in Topic 2 above.

25. Mr Whitelock has also provided rebuttal evidence in relation to the permitted activity status for REG-R7 requested by Mr Badham. Mr Whitelock disagrees with Mr Badham's assertion that a permitted activity status for community-scale REG activities is the most appropriate way to give effect to Policy F of the amended NPS-REG and prefers my recommendation for a controlled activity status. Mr Whitelock considers that a controlled activity framework enables community-scale REG activities in all environments, while ensuring their actual and potential adverse effects are appropriately assessed and managed in accordance with the corresponding matters of control.

26. Mr Whitelock also disagrees with Mr Badham's assertion that rules contained within overlays can effectively manage adverse effects on ecosystems and indigenous biodiversity as the notified

PDP does not contain any mapped areas of indigenous biodiversity (or "significant natural areas"). Instead, Mr Whitelock note that the PDP relies on indigenous vegetation clearance thresholds in the Ecosystems and Indigenous Biodiversity Chapter to require resource consent and it is not certain that indigenous vegetation clearance for community-scale REG would always require resource consent for REG activities. Without the safeguard of a mapped indigenous biodiversity overlay, Mr Whitelock considers that a permitted activity status for community-scale REG could result in unassessed, unmanaged and/or cumulative effects on indigenous biodiversity, including significant indigenous biodiversity values that need to be protected under section 6(c) of the RMA.

6.2 Analysis

27. Mr Badham requests modified relief to the original relief requested by Northpower for community-scale REG activities to be permitted in all zones. Instead, Mr Badham proposes a two-tier approach that would result in permitted activity status in the General rural zone, Light industrial zone, Heavy industrial zone and Māori purpose zone, with a restricted discretionary pathway in all other zones.

28. Firstly, I note that the General rural zone, Light industrial zone, Heavy industrial zone and Māori purpose zones in the PDP comprise of 85% of the geographic extent of the Kaipara District, with just under 80% of that attributed to the General rural zone.. On this basis, I consider that REG-R7 already captures the zones where community-scale REG activities are anticipated and expected to be most appropriate and a more stringent activity status is appropriate in more sensitive (e.g. Natural Open Space, which comprises 9% of the Kaipara District) and dense (e.g. General Residential) zones.

29. Having been involved in the development of the amended NPS-REG, I disagree that Policy C of the amended NPS-REG was intended to require district plans to remove any potential consenting hurdles for REG activities wherever they may "feasibly occur". Rather the intent of Policy C of the amended NPS-REG is to provide more specific direction on the operational need and functional need of REG to be in particular environments and locations (e.g. where the renewable energy resource is located) and that an assessment of alternative sites is not required, which will then enable consent applicants to demonstrate the need for a REG activity to be in a particular location or environment. This does not equate to removing any potential consenting requirement for REG in district plans or that a permitted activity status is appropriate or necessary to enable REG activities.

30. Likewise, the direction to enable REG activities in all locations and environments in clause (1) in Policy F of the amended NPS-REG is to be read together with the other clauses in that policy and does not anticipate that REG activities are enabled everywhere without any potential

constraint. On this basis, I disagree with Mr Badham that a permitted activity status is necessary in REG-R7 to fulfil the "recognise and provide for" direction in the amended the NPS-REG.

31. In my view, a consenting framework in the PDP that enables community-scale REG activities to be undertaken as a controlled activity in 85% of the Kaipara District appropriately gives effect to the enabling direction in the amended NPS-REG, which still directs that any adverse effects of REG activities are appropriately managed. In my view, a controlled activity pathway for REG activities provides an appropriate balance between being enabling while ensuring that potential adverse effects are considered and managed within the scope of the matters of control. I note that Mr Whitelock appears concurs with my position in his rebuttal evidence.

32. I also disagree with Mr Badham that the "signalled clear policy shift" of the proposed Planning Bill away from controlled activities is a relevant consideration. The PDP will most likely be in effect for several years prior to any new land use plans being prepared and having legal effect under any new legislation. In my view, it is appropriate to use a controlled activity status in the PDP while the RMA remains in effect, where it is the best tool (i.e. there is a high level of certainty on the actual or potential effects and that these can be managed through consent conditions). Further, the replacement activity status framework under the Planning Act (once it is in force) will use a very different decision-making framework to the RMA, including the scope of environmental effects that can be considered, therefore direct comparisons of activity statuses between the RMA and any future planning system are too simplistic in my view.

33. I also agree with Mr Whitelock that permitted activity status for community-scale REG activities risks adverse effects on indigenous biodiversity (including cumulative effects) in situations where the indigenous vegetation clearance thresholds in the Ecosystems and Indigenous Chapter are not exceeded.

34. As such, I do not recommend any amendments to the activity status of community-scale REG activities under REG-R7 in response to the evidence received. I acknowledge that the matters of control that were notified for REG-R7 were omitted from Appendix B of the section 42A report, which was an unintended error due to formatting issues. I recommend that these matters are reinstated, as set out in Appendix A of this report.

6.3 Recommendations

35. I recommend that the matters of control for REG-R7 are reinstated as notified, with the additional indigenous biodiversity matter as discussed in Topic 2 above. I have only shown the additional matter of control as a marked-up change in Appendix A of this report as the other matters of control remain as notified and are not a recommended change from this addendum.

7. Topic 4: REG-R8 – Large-scale REG activities

7.1 Summary of evidence received

36. While Mr Badham agrees with my recommendation to amend the activity status of REG-R8 from discretionary to restricted discretionary, he does not agree with retaining the non-complying activity status for wind farms that cannot comply with NZS 6808: 2010 Acoustics – Wind farm noise. In his view, a non-complying activity status is overly onerous and disproportionate to nature of the potential effects, noting that noise effects can be fully assessed and appropriately managed through consent conditions. Mr Badham also makes reference to the removal of non-complying activity in the proposed Planning Bill as a reason for not including this activity status in REG-R8.

37. Mr Badham also highlights an inconsistency between the activity status for failing to comply with NZS 6808: 2010 under REG-R7 and REG-R9 (restricted discretionary) and the non-complying activity status under REG-R8 and considers that there is no logical rationale for the difference.

38. In his primary evidence for DOC, Mr Whitelock considers that it is more appropriate for REG-R8 to remain a discretionary activity as notified, although he is not opposed to my recommendation to amend the activity status to be restricted discretionary. Mr Whitelock's rationale to retain th discretionary activity status is that the adverse effects of large-scale REG activities are not always well understood and a discretionary activity status provides more assurance of robust decision-making. Mr Whitelock has provided two alternative drafting solutions for REG-R8 to consider – either a full discretionary activity, or a restricted discretionary activity (as set out in my section 42A report) but with clause REG-R8.2.e updated to state "ecosystems and indigenous biodiversity" for the reasons set out in Topic 2 above.

39. In his rebuttal evidence, Mr Whitelock records his agreement with Mr Badham's assessment of the benefits of a discretionary activity pathway (without commenting directly on the issue of the activity status for non-compliance with NZS 6808: 2010). On this basis, Mr Whitelock considers that the evidence from Mr Badham has further reinforced his opinion that it is appropriate to consider and manage large-scale REG activities as a discretionary activity, as per the notified version of REG-R8.

7.2 Analysis

40. Mr Badham and Mr Whitelock request that the activity status for large-scale REG be more permissive and more stringent respectively. In my view, these differing viewpoints confirm that my recommendation for a restricted discretionary activity, combined with a more stringent non-complying activity status for failing to comply with NZS 6808: 2010, is appropriate and strikes the correct balance.

41. As with the comment on REG-R7, in my view, the potential changes to consent categories in the Planning Bill are not a material consideration for REG-R9, as suggested by Mr Badham.

42. In terms of the non-complying activity status where compliance with NZS 6808: 2010 (Acoustics – Wind farm noise) is not achieved, my understanding is that this is the activity status commonly adopted in more recent district plans for larger wind farms. This includes the REG Chapters in the Far North Proposed District Plan, Porirua District Plan, and proposed Wellington City District Plan. There is nothing is the evidence of Mr Badham to demonstrate this existing practice is overly onerous or inappropriate, other than referring to the amended NPS-REG. My understanding is also that NZS 6808: 2010 is the accepted standard for wind farm proposals and there was no opposition to a non-complying activity status from other submitters from the electricity sector.

43. I acknowledge that the activity status for non-compliance with NZS 6808: 2010 under REG-R7 and REG-R9 (restricted discretionary) and REG-R8 (non-complying) is inconsistent. The rationale for the difference is the scale of potential effect resulting from the non-compliance. In the case of community-scale and upgrading/repowering activities, the potential adverse noise effects resulting from a non-compliance are either limited in scale (community-scale REG activity) or by the existing nature of the REG activity (upgrading and repowering). Conversely, the potential impact of a non-compliance with NZS 6808: 2010 for a large-scale windfarm under REG-R8 may be much more significant due to the scale of the wind farm. In my view, this justifies a more stringent activity status for non-compliance with NZS 6808: 2010 under REG-R8 compared to REG-R7 and REG-R9.

7.3 Recommendations

44. I do not recommend any amendments to REG-R8, other than the minor amendment to the matters of discretion discussed in Topic 2 above.

8. Topic 5: REG-R9 – Upgrading or repowering existing REG activities

8.1 Summary of evidence received

45. Mr Badham and Ms Greenhalgh have provided planning and corporate evidence respectively on behalf of Northpower requesting the removal of the 10% maximum height limit increase in REG-R9. I acknowledged in the section 42A report that the 10% limit was relatively arbitrary but, in the absence of alternative, well-justified parameters, it was a pragmatic and proportionate way to enable upgrading and repowering of REG activities as permitted activities where there is a minor increase in the heigh of existing structures and requiring resource consent when this is exceeded.

46. Ms Greenhalgh considers the 10% figure to be inappropriate given the wide variations in scale of REG activities, particularly given the height differences between wind and solar farm

structures. Ms Greenhalgh refers to the 2.8m height of solar farm structures at the Te Puna Mauri ō Omaru operation in Ruawai, noting that REG-R9 as notified would only permit upgrades that increase the height of the solar panels by 28cm. Ms Greenhalgh notes that future solar farm upgrades may require height increases up to 3m to accommodate a battery energy storage system (BESS) or lift the solar panels to accommodate agriculture.

47. Relying on this evidence, Mr Badham concludes that imposing an inflexible 10% limit may unnecessarily constrain the ability of operators to modernise assets or adopt improved technology, which he considers is inconsistent with Policy H of the amended NPS-REG to enable the upgrading of existing REG assets and activities. Mr Badham's solution is to provide for an additional height increase limit of 3m for solar REG activities, and 10% for all other REG activities.

48. Conversely, Mr Whitelock is concerned that the permitted activity thresholds in REG-R9 for upgrades/repowering of existing REG (i.e. up to 10% increase in height and up to 25% increase in footprint) have no limit on how frequently upgrades and repowering can occur under this rule. Mr Whitelock is concerned that the lack of a time-bound limit enables incremental expansions of a REG without a resource consent, which could result in unmanaged cumulative effects. Mr Whitelock considers that this approach is inconsistent with the direction in Policy H of the amended NPS-REG to address upgrading/repowering while managing cumulative effects. As a solution, Mr Whitelock suggests limiting the frequency of upgrades and repowering of REG activities to once every 10 years. Mr Whitelock did not provide rebuttal evidence in relation to REG-R9.

8.2 Analysis

49. I acknowledge the concerns from Ms Greenhalgh that a permitted threshold of 10% height increase for solar generation is overly onerous and impractical. However, I am also aware that repowering proposals for existing wind farms can involve significant increases in the heights of existing wind turbines due to changes in technologies with the potential for significant adverse effects. In my view, the solution requested by Mr Badham provides a pragmatic and appropriate way to address this issue and recognise the different operational requirements and effects of solar and wind generation. Accordingly, I recommend that REG-R9 is amended to provide for this relief.

50. I acknowledge the concern from Mr Whitelock about the potential incremental increases in the height and footprint of existing REG activities as permitted activities and associated cumulative adverse effects. However, in my view, this risk is low as it is simply not economically feasible to upgrade REG activities at regular intervals. Rather, my understanding is that REG activities are generally upgraded at the end of their operational life (20 to 30 years) or in response to a specific change in technology or operational requirements (e.g. on-site battery energy storage).

8.3 Recommendations

51. I recommend that REG-R9 is amended to enable an increase of existing solar generation activities by up to 3m and to retain the 10% threshold for all other REG activities.

9. Section 32AA evaluation

Scope of the evaluation

52. This evaluation is limited in scope to my recommended amendment to REG-R9. In my view, a section 32AA evaluation is not required for other recommendations in this addendum as:

    a. The amendments to the title of REG-O3 and the reinstatement of the matters of control for REG-R7 are to address errors or omissions, which do not require further evaluation.

    b. The deletion of the phrase "~~indigenous fauna and ecosystems~~" and replacement with "ecosystems and indigenous biodiversity" in the matters of control and discretion throughout the REG chapter is a minor change to better clarify the intent of the original drafting. As such, no further evaluation is required.

    c. The deletion of the word "repair" from REG-R2 is a consequential change to better align with the wording of REG-P2. As discussed in Topic 1 above, I consider the word "repair" to be inherently covered by the word "maintenance". As such, removing the word "repair" does not change the application or scope of REG-R2 in my view, and therefore does not require further evaluation.

Objective of the proposal

53. The objective of the proposal is to provide more flexibility for solar REG activities to upgrade and repower to better give effect to Policy H of the NPS-REG. This objective is the most appropriate way to achieve the purpose of the RMA as it aligns with wider direction in section 5(2) where the management of adverse effects needs to occur while also enabling people and communities to provide for their social, economic, and cultural well-being and for their health and safety. A district plan is also required to have particularly regard to the efficient use and development of natural and physical resources under section 7(b), which includes efficient use and development existing solar REG activities, and the benefits to be derived from the use and development of renewable energy under section 7(j).

Options

54. My analysis in Section 8.2 of this addendum t outlines the rationale for providing a more enabling maximum height limit when upgrading solar REG structures, in comparison to the alternative options of retaining REG-P9 as notified or making it more stringent with respect to frequency of upgrades. In my view, my recommended amendment to REG-R9 recognises the inherent difference between the height of buildings and structures associated with solar REG activities compared to the potential height of wind generation. A 3m maximum height limit reflects a realistic upgrading scenario for solar REG activities, supported by evidence provided by Northpower, that is more aligned with the direction in Policy H of the amended NPS-REG to have particular regard to the efficiencies and environmental benefits of increasing REG capacity and output within the same REG site, as well as allowing sites to adapt to new technologies that may require a height increase of more than 10% of the existing structures.

Costs and benefits

55. Providing for an increased maximum height limit for upgrading solar REG activities has both economic and social benefits – fewer resource consents being required to upgrade solar buildings/structures is an economic benefit, as is more flexibility for entities such as Northpower to adapt existing sites so that they are used more efficiently and effectively. There are also economic and social benefits associated with being able to upgrade existing solar REG activities with BESS units to improve the reliability of power supplies to communities.

56. Potential costs relate to environmental and social effects associated with taller solar farm buildings and structures being permitted, primarily relating to built dominance and visual impacts on neighbouring properties. However, as the scale of solar REG activities is inherently smaller than other types of REG activities, the overall likely height of solar structures is around 5-7m after upgrades (as per the evidence of Ms Greenhalgh). This height is not considered to be overly excessive or dominant, particularly in the context of the zones where solar REG activities are likely to be located (General rural zone, Light industrial zone, Heavy industrial zone and Māori purpose zone). This proposal also relates to upgrading and repowering of existing REG activities therefore any increase in adverse effects is not anticipated to be significant.

Efficiency and effectiveness

57. I consider that a more flexible maximum height limit for upgrading solar REG activities will enable existing REG sites to be used more effectively by providing a permitted pathway for the two most likely types of solar upgrades, according to Ms Greenhalgh (installation of a BESS or adapting structures to enable an ‘agrisolar’ site). Enabling a combination of solar panels and agricultural activities is also a more efficient use of land as two activities can use the same site cooperatively as opposed to using double the land resource for the same two activities separately.

58. As such, I consider that the amendment to REG-R9 is the most efficient and effective way to give effect to the objectives of the REG chapter and the objective of this proposal and is therefore appropriate in terms of section 32AA of the RMA.