

BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of the Queenstown Lakes Proposed
District Plan

BY **AURORA ENERGY LIMITED**

Submitter No. OS 635

HEARING STREAM 5 - District Wide - Chapters 30, 35
and 36

**SUBMISSIONS OF COUNSEL ON BEHALF OF
AURORA ENERGY LIMITED**

**GALLAWAY COOK ALLAN
LAWYERS
DUNEDIN**

Solicitor to contact: B Irving
P O Box 143, Dunedin 9054
Ph: (03) 477 7312
Fax: (03) 477 5564
Email: bridget.irving@gallowaycookallan.co.nz

MAY IT PLEASE THE COMMISSIONERS:**Introduction**

1. Aurora Energy Limited ("Aurora") owns and operates an electricity distribution network within Dunedin, Central Otago and Queenstown Lakes Districts. The maintenance of the network is carried out by Aurora's sister company Delta Utility Services Limited.
2. Aurora's network distributes electricity from the National Grid and supplies over 85,000 customers including a number of facilities considered to be lifeline utilities¹ under the Civil Defence Emergency Act. Further to that, Aurora's own network is considered to be lifeline utility² in its own right. As a Lifeline Utility Aurora must ensure that it is able to function to the fullest possible extent during and after an emergency. To achieve this it must plan how it will manage its network during an emergency and participate in emergency management planning.
3. The evidence of Steve Sullivan sets out how the network operates, the issues that are of concern to Aurora and that they seek to manage through this process.
4. Through submissions Aurora sought a number of changes to the Proposed Queenstown Lakes District Plan to address some key issues. Those being:
 - (a) To seek greater recognition within the objective and policy framework of the critical importance of Aurora's infrastructure.
 - (b) To ensure that technical and operational constraints would be considered in decision making;
 - (c) Enabling efficient operation of the network by providing for the maintenance and upgrading required to support the resilience and reliability of the network and supply of electricity where there is increasing demand.
 - (d) Protect existing infrastructure from reverse sensitivity.
5. The relief sought by Aurora falls into two categories.

¹ Includes the airport and port etc

² Includes electricity distribution, waterwater and sewage, telecommunications, gas supply, rail and petroleum distribution.

- (a) Relief to enable efficient and effective management of its whole network;
 - (b) Relief to protect its critical electricity lines.
6. Amendments to the provisions discussed in Ms Dowd's evidence are important to manage the wider network and development of new infrastructure. Some amendments are also required to better provide for temporary generators
7. The other aspect of Aurora's submission relates to protecting Critical Electricity Lines ("CEL"). As set out in the original submission and evidence from Mr Sullivan, Aurora has a number of 66kV and 33kV sub-transmission and 11kV distribution lines of strategic importance because they supply critical services or a particularly large or isolated group of customers. The section 42A report has accepted that protection is warranted for the sub-transmission network (66kv and 33kv lines), but does not extend to 11kv lines.

Assessment Process

8. *Long Bay-Okura Great Park Soc Inc v. North Shore CC* EnvC 078/08 provides a reasonably comprehensive summary of the requirements of a district plan. Including the evaluations required under section 32 and the broader matters in sections 72, 74 and 76.
9. The objectives must be the 'most appropriate' way to achieve the purpose of the Act, whilst the policies and methods that follow must efficiently and effectively implement the objectives³.
10. Ultimately, the assessment under section 32 comes down to which option better meets the purpose of the Act⁴.

Proposed Objectives and Policies

11. It is submitted that the notified objectives and policies within chapter 30 provide inadequate recognition and support to protect Aurora's infrastructure and enable development of it. This applies to the whole network but particularly important for Aurora's critical infrastructure.

³ *St Heliers Capital Ltd v. Kapiti Coast DC* [2014] NZEnvC 52

⁴ *TKC Holdings Ltd v. Western Bay of Plenty DC* [2015] NZEnvC 100.

12. Whilst the Policies specifically recognise the national grid consistent with the NPSET, there must also be recognition of the distribution network in order to implement the Regional Policy Statement and the Proposed Regional Policy Statement and in my submission to achieve the purpose of the Act.
13. Whilst the ORC are yet to make decisions on submissions the PRPS is a matter to which regard must be had under section 74(2)(a)(i) of the Act. Of particular interest are the following Objectives and Policies within the Proposed Regional Policy Statement:

“Objective 3.4 - Good quality infrastructure and services meet community needs.

Policy 3.4.2 - Manage infrastructure activities, to:

...

c) Support economic, social and community activities; and

...

e) Protect infrastructure corridors for infrastructure needs, now and for the future; and

f) Increase the ability of communities to respond and adapt to emergencies, and disruptive or natural hazard events; and

g) Protect the functioning of lifeline utilities and essential or emergency services.”

“Policy 3.4.3 - Designing lifeline utilities and facilities for essential or emergency services to:

a) Maintain their ability to function to the fullest extent possible, during and after natural hazard events; and

b) Take into account their operational co-dependence with other lifeline utilities and essential services to ensure their effective operation.”

“Policy 3.4.4 - Managing hazard mitigation measures, lifeline utilities, and essential and emergency services.

Protect the functioning of hazard mitigation measures, lifeline utilities, and essential or emergency services, including by:

a) Restricting the establishment of those activities that may result in reverse sensitivity effects; and

b) Avoiding significant adverse effects on those measures, utilities or services; and

c) Avoiding, remedying or mitigating other adverse effects on those measures, utilities or services; and

d) Assessing the significance of adverse effects on those measures, utilities or services, as detailed in Schedule 3; and

e) Maintaining access to those measures, utilities or services for maintenance and operational purposes; and

f) Managing other activities in a way that does not foreclose the ability of those mitigation measures, utilities or services to continue functioning.”

“Objective 3.5 - Infrastructure of national and regional significance is managed in a sustainable way.

“Objective 3.6 - Energy supplies to Otago’s communities are secure and sustainable.

Enable electricity transmission and distribution infrastructure activities that:

- a) *Maintain or improve the security of supply of electricity; or*
- b) *Enhance the efficiency of transporting electricity; and*
- c) *Avoid, remedy or mitigate adverse effects from that activity.”*

“Policy 3.6.5 - Protecting electricity distribution infrastructure.

Protect electricity distribution infrastructure, by:

- a) *Recognising the functional needs of electricity distribution activities; and*
- b) *Restricting the establishment of those activities that may result in reverse sensitivity effects; and*
- c) *Avoiding, remedying or mitigating adverse effects from other activities on the functional needs of that infrastructure; and*
- d) *Assessing the significance of adverse effects on those needs, as detailed in Schedule 3; and*
- e) *Protecting existing distribution corridors for infrastructure needs, now and for the future.”*

14. There is a clear direction in the PRPS that protection should not be limited to nationally significant infrastructure, but applies to regionally significant infrastructure and infrastructure more generally.
15. Objectives 3.4 and 3.6 of the PRPS seek to “enable” more efficient transport of electricity, as well as “protect” electricity distribution infrastructure. It is submitted that the best way to enable and protect Aurora’s network in Queenstown Lakes is to amend the Objectives and Policies as requested by Aurora. The proposed amendments strike a more appropriate balance between the protection of infrastructure and managing their effects.
16. In my submission considerable weight should be given to the provisions of the PRPS in assessing the appropriateness of the proposed Plan. This approach is consistent with the Courts finding in *Winstone Aggregates Ltd v Papakura DC* where the Court found that while the Act does not require that the PDP be consistent with the PRPS, in giving weight to it, it was “mindful of the desirability of striking a balance between obligations and functions now and in the future.”⁵
17. Such an approach will also achieve efficient administration of the Council’s functions under the Act. If adequate regard is not had to the PRPS then there is a risk that the PDP will be inconsistent with it. Further plan changes would then be required following the PRPS becoming operative in order to give effect to the PRPS. It is submitted that ignoring the clear direction in the PRPS regarding infrastructure would be fool hardy.

⁵ *Winstone Aggregates Ltd v Papakura DC* ENvC A096/98 at [41]

18. Equally, the failure to recognise and adequately provide for Aurora's distribution network cuts across some of the strategic directions within the Proposed Plan itself. For example Goal 3.2.2 which seeks to achieve strategic and integrated management of Urban Growth. This cannot be achieved without adequate consideration of provision of electricity supply. There is a telling lack of consideration given to the importance of network utilities within the notified Plan. This is perhaps best demonstrated by the absence of any specific objective or policy recognition for network utilities within the strategic directions. That shortcoming has, of course, been dealt with during the earlier hearings and will hopefully be rectified.
19. Unfortunately, that same shortcoming has continued through into the Utilities Chapter itself. For example Objective 30.2.6 seeks to ensure that the wellbeing of the community is supported by the establishment, continued operation and maintenance of utilities. However, the subsequent policies and rules do not actually facilitate this outcome.
20. The suite of Policies under Objective 30.2.6 only sought to protect the national grid. The section 42A report has recommended the inclusion of a new Policy 30.2.6.6 to benefit sub-transmission infrastructure. This relief is acceptable to Aurora subject to some further changes to the definition of sub-transmission infrastructure to capture all Aurora's critical lines.
21. The day-to-day maintenance and upgrading of Aurora's local distribution network is also important. The notified PDP does not adequately recognise the location, technical and operational factors that influence the placement and design of Aurora's infrastructure. These requirements can make alternative routes or other mitigation methods impossible or highly undesirable. The amendment of policy 30.2.6.2 is a welcome change in this regard.

Critical Electricity Lines

22. As set out in the evidence of Mr Sullivan, Aurora has a responsibility to manage risks to its infrastructure and avoid or minimise those risks to ensure that safe and secure electricity is supplied to the City. Aurora has heightened responsibilities where electricity is being supplied to important community services/infrastructure such as hospitals and Airports.

23. To help satisfy its obligations in this regard Aurora seeks protection of approximately 276km of its Queenstown network by identifying its Critical Electricity Lines on the District Plan map.
24. The evidence of Ms Dowd covers the proposed CEL protection and associated suite of rules. Based on that evidence and Mr Sullivan's evidence it is submitted that protection of the identified Critical Electricity Lines is the most appropriate way to achieve the purpose of the Act. Without protection, development of the land surrounding the lines has the potential to negatively impact upon them, which may adversely affect the reliability of power supply to regionally important infrastructure or isolated communities. It may also threaten the speed at which power can be restored during an emergency, compromising Aurora's ability to meet its obligations as a lifeline utility provider.
25. The changes to the Objectives and Policies to protect the sub-transmission lines as recommended in the section 42A report are supported. Unfortunately, this does not adequately provide protection for all of Aurora's critical electricity network. In particular, the Wanaka to Makarora line which is not a sub-transmission line at present. However, given the isolated community that it serves with little opportunity for alternative supply it is considered to be a critical line. Aurora accept that the balance of its distribution network is not 'critical' and for that reason it has not sought a higher degree of protection for it.
26. The author of the section 42A report appears to have misunderstood the nature of the Wanaka-Makarora line. The planner notes that the lines that extend from Wanaka to Makarora are considered regionally significant, however, the proposed amendments do not provide for this line to be protected because the line is an 11kv Line. It is submitted that the 11kv line from Wanaka to Makarora should be included in the definition of *sub-transmissions lines*. Ms Dowd provides a suggested amendment to address this.

Why is CEL identification important?

27. Aurora has sought the identification of the CELs to make landowners and Council more aware of its critical infrastructure. It is a parachute, rather than an ambulance. Most people are fairly familiar with the requirements of the Resource Management Act, or at least know that development may require a resource consent. Equally if a person applies for a building consent nowadays, the building department must check

if any necessary resource consents are held. If they are not, building consent cannot be granted.

28. Having the CELs identified and a set of rules applicable to them, Council and Aurora will be able to identify when/if a proposed activity presents a risk to this critically important infrastructure and address any issues before it is too late. However, the restrictions are actually no more onerous than currently exists through the NZ Electrical Code of Practice 34.
29. The lack of awareness of the Code (from landowners and Council) has already given rise to issues. Aurora have already encountered examples of resource consents being granted without Council considering the proximity of the development to Aurora's infrastructure. It has only been when Aurora was asked for a new connection or similar that they become aware of the issue. In that instance, landowners do not take kindly to being told that their resource consent is useless because the building or structure does not comply with the Code. They are then required to obtain a variation to their existing consent which comes at further unnecessary cost.
30. In other instances Aurora has not become aware of development until it has already been undertaken by which time it is too late to do anything about it. In these instances the security and resilience of the network is compromised.
31. The purpose of the CEL framework is to avoid these problems.

Electricity distribution Corridor

32. The section 42A Report has assessed the proposed provisions and confirms that the standards of restricting buildings within 10m of the sub-transmission lines⁶, is consistent with the NZECP 34:2001. These amendments are evident in the recommended changes to Rule 30.5.10.
33. Some further amendments are sought by Aurora to manage the effect of trees and with respect to the activity status for any consent required. These are addressed in the evidence of Ms Dowd.

⁶ Note that the setback for activities is different to the setback sought for subdivision.

Further Issues:*Visual Amenity*

34. Aurora made submissions with respect to Rule 30.4.11 and the matter of control for visual amenity of any new lines and associated support structures. The planner has rejected this submission on the basis that, especially in outstanding natural landscapes, there is an onus to ensure that the visual effects of any structures are mitigated. Aurora submits that there are several practical hurdles to overcome that limit potential for visual mitigation to occur. Ms Dowd's evidence outlines the constraints Aurora has in regard to design and the materials available to meet the specifications and structural integrity requirements for its electricity infrastructure. In many instances it is impractical to mitigate the visual effect of a new asset. Requirements to paint support structures will result in significant construction and maintenance costs and have little effect on reducing the impact on visual amenity values. The section 42A report refers to a telecommunication structure that was painted in a recessive colour to minimise visibility. It is submitted that whilst those mitigation methods may be feasible for telecommunications they are not for electricity distribution due to the nature of the equipment and the fact that there are considerably more support structures required. This significantly exacerbates access issues and increases costs. Therefore Aurora seek removal of 'appearance, scale and visual effects' from the matters of discretion for Rule 30.4.11.
35. The effect of this rule is of particular concern given the lack of clarity about the establishment of utilities within Roads. If this rule applies to Roads then all new lines will require a resource consent which comes at significant cost, both in terms of time and money. This does not enable the wellbeing of the community to be supported by efficient establishment of infrastructure.
36. I note that in the Council's opening Mr Barr foreshadowed an additional permitted activity rule for utilities within Road Reserve. Aurora is very supportive of such an addition, subject to review of the proposed text.

Temporary electricity generation and noise provisions

37. Aurora submitted on rule 30.4.6 - *Non-renewable electricity generation*. Emergency backup generators provide a vital role in maintaining supply of electricity during times of supply interruption. There are two parts to Aurora's temporary emergency generation needs. Outages caused by unanticipated events such as storms, vehicle

crashes etc and outages required to facilitate maintenance and upgrade works. In both instances the use of temporary back-up generators is short term. Given that it is considered inappropriate to require compliance with the noise standards in Chapter 36. That relief has been accepted in the section 42A report.

38. However, the section 42A report rejects the relief that Aurora sought to include emergency generation within the definition of Utility. This requires Aurora to rely on the rule enabling non-renewable electricity generation (rule 30.4.6) to operate generators in “non-emergency temporary” situations when the temporary activity rule (rule 35.4.13) does not apply.
39. Rule 30.4.6 is not adequate because there would be very few instances where Aurora could comply due to the requirement for the generation to only supply the site on which the generator is located. Generally, when these generator are relied on, it is to provide continuing supply to part of Aurora’s network. Therefore Aurora will be required to obtain consent for each time it needs to use a back up generator to provide temporary supply during maintenance and upgrade works. This is inefficient and does not achieve the Objectives in the PDP.
40. It is submitted that there are two ways to address this issue. Aurora’s original solution to amend the definition of Utility or amend Rule 30.4.6 to provide for temporary generators required for utility activities.

Definition of minor upgrading

41. The definition of Minor Upgrading is significantly more restrictive in the PDP than the ODP. The reason for this more restrictive approach is not clear. The section 32 report does not identify any reason for the change. A definition which more accurately recognises the nature and scope of maintenance and minor upgrading activities is more appropriate and will better implement the Objectives and Policies. (Aurora’s proposed definition is available in Appendix B of Joanne Dowd’s evidence.)
42. The only significant deviation in the section 42A report from the relief sought by Aurora relates to the option of increasing the height of support structures by up to 15%. The section 42A report does not provide any explanation as to why this relief has been rejected. Aurora has requested this relief because it is not unusual for minor height increases to be encompassed in the replacement of a support structure. This is typically required to increase the resilience of the line. Increased heights allow longer spans between support structures which reduces safety risks along roads and

generally makes the lines less vulnerable to damage from activities occurring at ground level. It also allows Aurora to meet newer safe electrical distance standards when lines are upgraded and adopt new and more efficient technologies.

43. All of these things enable Aurora to provide a safe, reliable and resilient network which will achieve Objective 30.2.5 and 30.2.6.

Support Structures for Overhead Lines

44. Aurora made a submission on Rule 30.5.8 to exclude *Support Structures for overhead lines* from complying with the maximum height provisions for buildings of the zone they are located in. Having to comply with this rule could result in Aurora having to obtain resource consents as a *Discretionary or Non Complying Activity* within the relevant zone. This is an overly restrictive approach and conflicts with Objective 30.2.6 of the Proposed Plan. The height of support structures is dictated by the surrounding environment and need to achieve compliance with safe electrical separation distances.
45. The section 42A report recommends rejecting Aurora's submissions. Although there does not appear to be any reasoning for this. It is submitted that Aurora has the better knowledge and understanding regarding the scope of maintenance works required on its network. Therefore its evidence in this regard should be preferred. It is also unclear why telecommunication infrastructure gets the benefit of an exemption whilst electricity distribution does not. The reasons for using higher support structures are likely to be much the same.

Conclusion

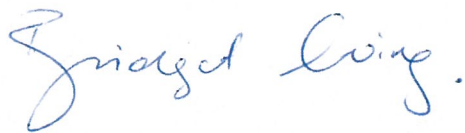
46. Aurora seeks a number of changes to the provisions of Chapter 30 to protect and enable development of its electricity distribution network. It is submitted that these changes are necessary to appropriately provide for the efficient operation and development of the District's electricity supply.
47. It is submitted that protection of the sub-transmission network (including the Wanaka-Makarora Line) is necessary to achieve the strategic directions⁷, the RPS and PRPS. Ensuring that these critical lines are protected will assist Queenstown Lakes' resilience and enable adaptation to changing electricity supply and demands.

⁷ Subject to Aurora's requested relief in relation to that section being accepted.

- 48. The changes sought by Aurora would also improve public and landowner knowledge of relevant standards in close proximity to critical lines and avoid inefficient regulatory processes or unintentional creation of risks to the electricity network. The changes sought by Aurora will reduce the risks to the public in and around these lines, enhance the reliability of the network and help Aurora ensure it can meet its obligations under CDEA.

- 49. The balance of the changes sought by Aurora will enable efficient maintenance and operation of the remainder of the distribution network. This is a critical component of the Plan to ensure that the well-being of the community which relies on network utilities such as Aurora's are provided for.

- 50. Not making the changes sought by Aurora would represent a failure of the District Plan to recognise the importance of the distribution network to the District and risk a loss in the quality of electricity supply which enables the community to provide for its social and economic wellbeing.



.....
B Irving

Counsel for Aurora Energy Limited

Dated: 14 September 2016