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Public version

Electricity Price Review, Submission to Options Paper, 18 February 2019

This submission has been prepared in response to the release of the Electricity Price Review *Options Paper* and also following direction received by the Minister for Regional Development. The direction from the Minister follows a local bill which is being promoted by the Far North District Council. which the Minister has suggested could be addressed through this committee.

This submission is only focused on Section F: Improving the Regulatory System, in particular, the cross involvement of a distributor with a connected generator. We feel that this is an important aspect of the regulatory system which has not been covered by the options paper. It provides a significant opportunity to lower the cost of electricity for consumers in an area with the highest unemployment and is very socioeconomically deprived. All other aspects are covered in our joint submission with Northpower.

Top Energy is the network company providing electricity distribution services to the Far North. It has also developed geothermal generation within the Far North and is thus in a unique position amongst all network companies in New Zealand. Top Energy is currently expanding its generation capacity and this expansion has, in its view, highlighted a significant weakness in the current regulatory framework so far as it relates to the cross involvement of electricity distribution businesses in electricity generation businesses. This weakness results in the prospect of considerable transmission costs being incurred by electricity consumers in the Far North District.

Background

Top Energy is owned by the Top Energy Consumer Trust, on behalf of the power consumers of the Far North. Top Energy distributes electricity to 32,500 consumers within its network. The network covers an area of 6,822 km². Approximately one third of the network was originally funded under the Rural Electricity Reticulation Council (RERC) scheme and largely remains uneconomic today. As these lines come to the end of their economic lives, Top Energy is urgently addressing alternative microgrid generation (which means Top Energy will be retailing electricity) to address this situation. Because of the distance from bulk electricity generation, the consumers in the Far North District pay higher transmission charges as a component of their electricity charge than most other consumers in New Zealand.

In part, to help address the transmission cost impact on consumers, Top Energy has developed geothermal generation utilising the geothermal resource in its region, located at Ngawha Springs. Generation from this facility has helped manage transmission charges by reducing peak demand requirements. Top Energy currently has generation capacity from the Ngawha plant of 32 MW (nameplate). In addition, it already has approximately 6.65 MW of diesel generation which it uses to maintain security of supply in circumstances of planned and unplanned network outages. This is planned to increase to approximately 16MW. To further enhance the benefits the local generation provides, Top Energy is increasing its geothermal generation capacity by the development of another plant. This new plant will take Top

Energy's total generation capacity beyond the 50 MW threshold set out in the Electricity Industry Act 2010 (Act), which triggers the requirement for there to be compliance with the "Arm's-Length Rules", as detailed in the Act.

The basis for this requirement, as the Committee members will know, is that an electricity distributor cannot have an involvement in a connected generator if its generation capacity exceeds 50 MW, without complying with the Arm's-Length Rules. Top Energy is able to, and is indeed very happy to, comply with all of these rules, except two which prohibit common management of the network assets and the generation assets.

Section F: Improving the regulatory system

Problem Definition

Under the Act, the Electricity Authority has the power to exempt compliance with such rules and Top Energy initiated discussions with the Authority in relation to an exemption. Some two years later, in October 2018, an exemption was granted by the Authority from the requirement to comply with the prohibition on common management. In the Authority's view, there was little or no substantive adverse impact from a competition perspective in allowing common management of Top Energy's network and generation assets.

However, the conditions on which the exemption was granted are such that it is unworkable from an economic perspective and unrealistic from a commercial perspective. The exemption will only apply (effectively) for a period of seven years from commissioning of the new plant. The resource consents relating to the plant are available for 35 years and the generation plant will have a life cycle of 30 to 35 years. There is no certainty that a further exemption will be granted at the expiry of the current term. Should the exemption not be extended, consumers will then have to meet the additional costs either of separating the management of the two activities (estimated to be at least \$1m per year, year on year) or constructing a new grid connection (assuming property rights can be obtained) and writing off the previously built connection into Top Energy's network (together estimated to be approximately \$15m). Additionally, there is a prohibition on Top Energy retailing electricity which precludes it from providing microgrid generation solutions for uneconomic lines.

These conditions have left Top Energy with little choice but to abandon embedding the new geothermal plant in its network and instead is looking to connect it to the national grid. The direct result of a connection of that plant to the national grid will be a cost penalty to consumers, payable to Transpower, which are "passed through" to consumers. This means the consumers of the Far North District will face approximately \$4m higher costs that would otherwise be the case, per year, year on year.

This, in Top Energy's view, is unfairly burdensome on consumers, but they are costs which will be unavoidable under the current regulatory regime relating to the involvement in generation exceeding 50 MWs. If the new plant was embedded in Top Energy's network and operated by Top Energy management, these additional transmission charges will not be payable. It should be noted that, in this specific case, the difference between embedding and grid connecting is a minor piece of engineering and the movement of the grid interconnecting point (approximately \$3m investment saved if embedded).

The Far North District Council believes that this is a matter on which it should intervene and seek to provide a solution on behalf of the people of the Far North. It is promoting a local act which will have the effect of removing the exemption power relating to common management from the Electricity Authority in relation to electricity distributors in the Far North District. This will empower the Far North Council to grant exemptions where consumers will receive an economic benefit from it doing so and where there are no adverse competition outcomes. This local bill has been notified within the

district and is proceeding in accordance with the requirements of standing orders and is supported by the National Caucus. The bill also has the support of local iwi.

In summary, the problem is:

1. *"that the Electricity Industry Act 2010 (Act) limits the efficient use of local distributed generation to reduce the power costs of consumers"*
2. *"that far north consumers are unable to benefit from lower transmission costs due to local generation, in the order of \$4m p/year or \$140m over the consent life, or approximately a 7% reduction in price"*
3. *"that local authorities are looking to take away powers from a central regulator to achieve regional economic benefits for their consumers"*

Solution to the problem and improving the regulatory system

The local bill, if it receives sufficient support from the government coalition parties, is one solution to this problem. Another solution is for the 50 MW threshold in the Act to be increased. Top Energy understands that there is considerable support for an increase in the allowable generation capacity beyond 50 MW.

A limit of 150 MW is recommended which is still significantly below the 250 MW threshold for generation directly connected to the grid (Part 3 s72 (2) (a)). It is important to note that this limit refers to the name plate, not actual generation output, which could be between 80-90% of this value). This limit could be applied solely to Trust owned lines companies. Trust owned lines companies are in a unique position to invest in local generation to support the significant growth forecast in electricity demand which is estimated to more than double by 2050, as outlined by Transpower's 2018 *Te Mauri Hiko* report and Bloomberg.

If that threshold were to be raised, it could either be simply raised to an increased level or could be raised only in respect of generation which utilises renewable resources. Premising the increase on renewable resources would reflect the original policy behind allowing distribution businesses to operate renewable generation. In addition, encouraging the use of renewable resources to increase available electricity is very closely aligned to current government policy on the reduction of reliance on fossil fuels in the context of environmental concerns.

In summary, the solution to the problem is:

1. *"a local bill to allow the Far North Council to grant exemptions under the Act for the Far North District, not the Electricity Authority"*
2. *"to change the connected generator threshold in the Act from 50 MW to 150MW, supporting the requirement to meet electricity demand in the future"*

We would welcome the opportunity to discuss this with the Committee.

Yours sincerely



Russell Shaw
Chief Executive
Top Energy Group