SUBMISSION

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FEDERATED FARMERS OF NEW ZEALAND

To:	Electricity Price Review Secretariat, Ministry for Business, Innovation and Employment PO Box 1473 **WELLINGTON 6140**
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Submission on:	**Electricity Price Review first report**
From:	**Federated Farmers of New Zealand**
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SUBMISSION TO ELECTRICITY PRICE REVIEW PANEL ON ELECTRICITY PRICE REVIEW FIRST REPORT

1. INTRODUCTION

1.1 Federated Farmers welcomes the opportunity to provide this submission to the Electricity Price Review Panel on the Electricity Price Review first report.

1.2 Electricity is a significant and vital input into the farm business with networked electricity supply one of a few sources of energy available to rural households.

1.3 Rural electricity consumption differs from that of most other consumer groups. Farms generally have residential plans for the household and commercial plans for the farm business. Farm consumption of electricity is also generally on a scale between that of a residential consumer and a commercial consumer, depending on the farm type.

1.3 Affordability and reliability of electricity supply present significant trade-offs for rural consumers. The more reliable electricity supply, the less affordable it is.

2. RURAL ELECTRICITY CONSUMERS

2.1 The priorities of rural electricity consumers can best be understood as

- Electricity should be affordable. Electricity is a vital and costly source of energy to operate the modern farm and household.

- Electricity supply should be certain. Quality of supply is an issue in many rural areas, with unplanned outages and delayed restoration of supply not uncommon.

- Property rights must be respected. Farmers host a lot of the infrastructure that transmits and distributes electricity across the country. Hosting such infrastructure creates challenges additional to those already faced as farm businesses, like animal welfare requirements, farm biosecurity and other aspects of farm management.

2.2 Farms rely on a reliable supply of electricity to undertake many of the functions required to support the farm business:

- For dairy farms, this means reliable supply during milking and consistent supply throughout the day for milk vats to maintain a safe temperature for milk awaiting colleciton.

- For irrigated farms, this means reliable supply to maintain pivot and other irrigation systems during dry periods that risk pasture and crop health and production.

- For sheep and beef farms this means reliable supply for animal water supply and during shearing.

2.3 Farms generally rely on extensive line networks with few customers on a per km basis. Those same lines networks tend to be sited in parts of the country where terrain and other factors see them suffer greater weather elements than more urban parts of a lines network. This creates a situation where the costs to maintain those lines and poles is greater as are the costs associated with restoring supply after an outage than could be said for line networks in urban areas.

2.4 Farms are used to long delays to restoration of supply after a weather event, with many taking steps to ensure continuance of electricity supply through diesel generators. That farmers have to take on costs additional to ensure continuance of supply often becomes an issue whenever price increases are forecast or proposed for their networked electricity supply.

2.5 Farmers should not have to pay what they perceive as a high cost for networked electricity supply and then pay yet more for when networked electricity supply becomes unreliable.

2.6 A further aggravating factor is the perception by many of our members of poor maintenance of lines and poles supplying electricity to their farms. That much of the lines network is ageing and inadequate is widely understood.

2.7 What is less understood by our members is why they have to continue to pay higher electricity bills with little observed improvement to the supply of electricity to their farm.

2.8 We have had instances in some parts of the country (mainly the top of the South Island), where network constraints have prevented farms from necessary upgrades to the farm business. In these instances, the cost to increase capacity in electricity supply to dairy farms has been prohibitive, preventing uptake of emerging dairy milking technologies and upgrades in the dairy milking platform on farm.

2.9 In those instances where a farm business successfully pursues an upgrade to their electricity supply (ie: 3-phase power when it is currently unavailable), the farm is required to pay the capital cost, while the local lines company then assumes ownership of the lines and poles to the transformer. In some of these situations, the local lines company has also tended to adopt a monopoly on connecting farm infrastructure to said transformer. Work undertaken by local lines companies is noticably more expensive to the farmer than employing an independent electrical engineer to do the same work.

2.10 The issue of customer service lines is one that is emerging as an increasing issue for rural consumers. This is all about the point where a line supply electricity to the farm becomes the property and responsibility of the farmer as distinct from those parts of the lines network that are the responsibility of the lines company. This is arguably a more prevalent issue for rural consumers than for urban consumers.

2.11 We have dealt with member situations where replacement or upgrade of expensive components (generally in the $5,000-25,000 range) is required to resolve a quality of supply issue.

2.12 Every situation has involved heated arguments with the lines company on responsiblity for the cost of required work to the lines and poles supplying the farm.

3. GENERATION

3.1 Electricity generation in New Zealand has generally proceeded on the basis of step change investments in new large-scale generation plant. On the basis of cost of generation vs volume of electricity generated, there are obvious merits to large-scale generation.

3.2 That said, the reliance on developing large-scale generation creates situations where electricity prices appear to become more volatile as demand reaches the tipping point to requiring new supply.

3.3 While demand in recent years has remained relatively stable overall, the means by which such demand is met has been less stable.

3.4 Genesis power stations in Huntly are expected to be decommissioned in 2022, raising questions of what supply will be developed to replace it. Fuel mix for thermal generation is moving away from more reliable coal to less reliable gas and other fuel sources. Gas is becoming less reliable as a fuel source for thermal generation given current issues with maintenance of the gas network, known end-of-life for large-scale gas fields, and regulatory constraints on exploration for additional oil and gas reserves.

3.5 Renewable energy generation has had its own challenges in being further realised in this country, including in recent years resistance on conservation and aesthetic grounds. Hydroelectric projects have recently suffered significant setbacks in regional planning processes. It has been so long since a large-scale hydroelectric scheme was commissioned that there is a question of how long it will be until we see another large-scale hydroelectric scheme. New windfarms have also become few and far between as regional planning processes allow for fewer turbines. There have been smaller-scale increases in geothermal generation, but geothermal represents a limited opportunity for electricity supply.

3.6 Affordability and reliability of supply present trade-offs as regards generation in that the balance is always one of ensuring there is enough supply to manage demand, but one wants to avoid a situation where one is paying for the costs of supply that is not required.

4. TRANSMISSION

4.1 Overall, transmission is required to deliver electricity from where it is generated to the regions where it is distributed. This should be done at a reasonable cost to consumers.

4.2 Transmission pricing is arcane and essentially unknowable for most farm businesses and rural households.

4.3 Recent proposals by the Electricity Authority could see transmission pricing shift in significant degrees in various parts of the country, with some regions winning in a minor way and some regions losing in a big way.

4.4 This is a difficult issue for Federated Farmers as we represent members that both win and lose in transmission pricing proposals.

5. DISTRIBUTION

5.1 Overall, distribution is required to deliver electricity from where it is transmitted to end of line consumers, whether on farms, in the city or suburbs. This should be done at reasonable cost to consumers.

5.2 Distribution pricing is complicated and often involves awkward trade-offs by rural consumers between quality of supply and affordability of supply.

5.3 Making electricity more reliable risks making electricity less affordable as line network upgrades increase the cost to consumers. Powerco upgrade proposal is an example with projected $1.27b investment over next few years will see average monthly household electricity bill increase by $6 when work is complete. Farm business and rural household electricity use far exceeds that of the average household, so we expect greater increases for farmers.

5.4 Current distribution pricing tends to socialise the cost of electricity distribution across a lines company's customer base, irrespective of the actual cost of delivery to each customer.

5.5 There is a strong risk of electricity becoming unaffordable to rural consumers in particular areas if distribution pricing were to move to more cost-refective pricing.

5.6 Ruapehu is an example of a region with low urban population, notable number of generally-unused holiday baches and farms supplied by lines over difficult terrain.

6. TECHNOLOGY

6.1 The adoption of new electricity generation technologies has not had a great deal of uptake from farmers, with most relying on network electricity supply to support the running of the farm business.

6.2 The key issues appear to be the often prohibitive upfront capital investment required, and uncertainty around self-generation / distributed generation to guarantee reliability of electricity supply at those times reliability of supply is needed.

6.3 Issues around the relatively low rebate offered for feeding electricity back into the grid, and the costs involved in remaining connected to the grid to feed electricity back into it are secondary for farm businesses. While improvements to incentives to feed electricity back into the grid would be welcome, such improvements would likely deliver higher costs to networked consumers.

6.4 Uptake of electric vehicles is unlikely to be significant in rural areas for some time. Most electric vehciles are too small to be of much use on farms, lack capacity for the extended distances rural vehicles often need to cover, and unreliability in electricity supply at the farm to recharge the electrici vehicle.

6.5 The Federation is concerned that with greater uptake of electric vehicles, pressure on electricity demand could reach a point where electricity supply in

rural areas becomes less reliable and/or affordable. This is especially relevant as regards questions around how the growth in electricity demand from the uptake of electric vehicles will be generated.

6.6 Energy efficiency initiatives have seen little application to rural consumers. Most residential energy efficiency initiatives centre on urban circumstances with priority for low-income households. Most commercial energy efficiency initiatives seem focussed on building design and industrial processes.

7. REGULATION

7.1 Federated Farmers expends a great deal of time and effort in interpreting the legislative and regulatory framework for electricity for its members.

7.2 There is an element of opacity to much of this legislation and regulation that makes much of it almost impenetrable to rural consumers. Some has to do with the framework constantly evolving in response to various crises and emerging priorities over time. Such evolution has arguably reached a point where the framework is arcane in its technical details and further complicated by interlinkages between various parts of the frameworks, such that otherwise simple remedies often have far-reaching implications.

7.3 Much of this has to do with the complicated nature of the electricity sector and the difficulties that come from regulating a sector that comprises geographical transmission and distribution monopolies and competitive generation and retailing businesses.

7.4 As regards pricing regulation, it has been especially difficult for rural consumers to understand the extent to which proposals will affect their farm business and rural household. The use of averages generally occurs on a basis that can neither be applied to either commercial or residential parts of the farm.

8. ABOUT FEDERATED FARMERS

8.1 Federated Farmers of New Zealand is a member-based organisation representing farming and other rural businesses. Federated Farmers has a long and proud history of representing the needs and interests of New Zealand farmers.

8.2 The Federation aims to add value to its members' farming business. Our key strategic outcomes include the need for New Zealand to provide an economic and social environment within which:

- Our members may operate their business in a fair and flexible commercial environment;
- Our members' families and their staff have access to services essential to the needs of the rural community; and
- Our members adopt responsible management and environmental practices.