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Manager, Economics and Approvals  
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PO Box 1021  
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## **RE: Lower South Island Reliability Consultation**

To the Manager Economics and Approvals,

Thank you for the opportunity to make this submission.

I have answered the questions in the consultation document that I believe we are in a position to add some further value or information. We have not commented elsewhere believing other industry participants are better placed to address these areas.

Firstly I would like to reiterate the view Transpower has developed of the changing nature of the industrial base in Southland. Fonterra sees an ongoing shift towards dairy production and processing for some ten years. Electrical load growth will be through farm conversions and subsequent increased milk processing plant provided by Fonterra or others in the dairy industry.

My comments here relate to the wider dairy industry. i.e. Viewed from a load growth perspective it is not important whether processing capacity is provided by Fonterra or others. It is not known at this time who will build capacity rather we know it will need to be built.

### **Q2. Do respondents consider that the demand assumptions are appropriate for this project?**

Table 17: Potential Step Load Changes for the Lower South Island 2008-2019 shows Fonterra Edendale site with step increase of 1.5 to 2.0 MW's in years 2015 and 2016.

At our presentation in November 2008 we stated a step load increase of milk processing capacity by Fonterra, or other participants, around this time based on forecast dairy conversions in Southland.

To reiterate, this step increase will be in the order of 4 MW's in one year if it is Fonterra. If it is another industry participant, needing a green field site with associated services and standing loads, this may be as high as 7 MW's.

### **Q7. Are there other market costs or benefits which should be reflected in the analysis?**

I understand in the EGR's there is no allowance or recognition for environmental impact when calculating Value of Lost Load. We would like consideration given to some value being placed on environmental impact. In our case should an outage occur of sufficient duration we would have to dispose of raw milk.

As I have not done any work in this area I am not comfortable at this point providing a proposed additional cost. We can however assist with this if environmental impact becomes a consideration when valuing lost load.

**Q8. Do respondents consider this Value of Lost load is appropriate for valuing lost load in the lower South Island region?**

This depends very much on the time within the dairy season of the interruption and the duration of the outage. Dairy plant is built to meet peak production flows. At these times opportunities to move milk from one plant to other sites is very limited. If a given outage duration is sufficiently long (this could be as low as several hours) the raw milk must be disposed of. This rapidly increases our costs to roughly \$50,000/MWhr. Raw milk is, by some margin, our most expensive manufacturing input. Based on this risk we submit a greater Value of Lost load should be considered for the EDN GXP.

Thanks you once again for the opportunity to put forward our submission. Please do not hesitate to contact the under signed if you require any further information than this.

Yours Sincerely

Glenn Sullivan  
Senior Electrical Engineer