

2 October 2018



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Dear Sue

RESPONSE TO VECTOR'S HEALTH AND SAFETY DPP RECONSIDERATION REQUEST

We welcome the opportunity to provide a submission regarding the Commerce Commission's recent decision on Vector's health and safety DPP re-opener request.

We agree with Vector that there have been recent changes in work practices in NZ with emphasis on risk planning, resulting in more work being completed de-energised to deliver a safe outcome. This is consistent across the industry and is not limited to Vector.

The clear driver for the change is the Health and Safety at Work Act (HSWA) which strongly reinforced the responsibility of parties to work together to proactively manage risk. This has placed clearer obligations on asset owners and contractors to coordinate the hierarchy of controls. The outcome is a greater proportion of work being completed de-energised. In support of Vector's application we have endeavoured to calculate the impact from our own perspective to highlight the materiality of the change of meeting the HSWA obligations.

There have been two major impacts. Firstly there have been increases in the number of outages and their durations, SAIFI and SAIDI respectively, and secondly this has required changes to current systems and processes to facilitate increased planning for work at both high voltage and low voltage levels, plus the consideration of introducing further portable generation, where it is deemed safe to do so. Each of these is discussed below.

1) Increases in SAIDI and SAIFI

Following the introduction of the HSWA in 2015, WELL's initial approach was to maintain its existing live work practices, while reviewing the effectiveness of its field contractors safety controls. This recognises the value of live work as a proven practice of using specific techniques to eliminate the voltages in the work zone apart from the single voltage being worked on. As the implications of the Act became clearer, field contractors reviewed the currency of certain procedures and chose to discontinue certain processes which were used infrequently, although still met certification requirements. This resulted in a smaller set of live work procedures.

WELL then implemented a live/de-energised decision tool, which considered whether it was reasonably practical to proceed with a live or de-energised work procedure as part of our work planning with our field contractors. As a result of these changes, the

amount of live line work being undertaken decreased, being replaced by de-energised work. The 2017/18 regulatory year was the first full year with this decision tool was implemented.

We estimate the increase in de-energised work in 2017/18, as a result of the HSW Act, contributed 8% of our entire SAIDI target for that year, which we consider to be material from a Quality perspective as part of the Price-Quality path regulation.

To manage the customer impact and because we had exceeded our 2017/18 target, we changed our approach for the 2018/19 year where we implemented an increased use of portable generation onto the network. In 2018/19 this has been successful in reducing some of the impact of the increased interruptions seen in 2017/18 but this comes with additional direct generation cost and greater planning complexity. To date, the cost has been marginally lower than the SAIDI/SAIFI incentive scheme¹.

Regardless of the result, the change in legislation has caused a material impact to the industry and this resulted in a combination of higher SAIDI/SAIFI levels and a greater direct cost of portable generation. While we are trialling portable generation to maintain historic SAIDI/SAIFI values, we must balance this against new controls required to manage the risks associated with portable generation.

While current generation is fossil fuel based, our thinking is in the future, it will become renewable or we will be able to use other new technology developments in conjunction with our customers to limit the impact of de-energised work. This is clearly an evolving process.

2) Increases in systems and processes and increased planning time

The implementation of new systems and process controls such as live/de-energised decision tools or new generator guidelines, requires material effort and cost. We have conservatively estimated this cost at \$75k for the additional asset planning systems and a further \$75k for field deployment costs².

From 2013/14 to 2016/17, approximately 20% of annual work involved a planned outage. This has increased to 32% following the introduction of the live work policy: a 60% increase in the number of planned outages per year.

Our network control room planning has increased significantly with a greater volume of de-energised planned work requests which affect both the high voltage de-energisation and the management of the low voltage network to reduce outage impacts where safe to do so.

We estimate that a de-energised outage (whether supported by generators or not) requires an additional 8 hours of planning work per outage than would be required for live line work. In addition, each project requires an additional field switching time of 2 hours, extending the field time for our contractors ahead of completing the planned work. This equates to an increase in operational cost of approximately \$100k-200k per annum.

¹ Which is material if the end result is between the Cap and Collar of the incentive scheme.

² Including development, consultation, IT, and training.

Summary

It is clear that the introduction of the HSWA has materially increased costs, where the practicality of increased de-energised work for safety reasons results in a requirement for increased planning and use of portable generators in order to operate within regulated Quality targets.

In summation these additional costs appear to be approaching the threshold of 1% of total revenue. We therefore support Vector's submission and provide further evidence that there are material additional costs associated with doing greater amounts of de-energised work and that these costs should be factored into future allowances.

We would also request that there is a review of how Quality targets will be amended to recognise the additional planned interruptions caused by meeting the live/de-energised decision making introduced by the change in health and safety legislation in 2015.

Should you have any further questions, please do not hesitate to contact me directly. In the first instance please contact, Scott Scrimgeour, SScrimgeour@WElectricity.co.nz.

Yours faithfully



Greg Skelton
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