Submission on the Commerce Commissions Draft Decision

Aurora Energy - Customised Price Pathway application 2020

Richard Healey 18/12/2020

The Commerce Commission has failed the customers of Aurora Energy consistently for almost two decades. It has failed to put in place regulations, systems and processes that ensured that Aurora and its antecedents maintained a safe, reliable and resilient network. It has failed to stop Aurora from using its monopoly position to disadvantage the residents of Central Otago by imposing onerous differential price structures. Now it has failed those – completely powerless – customers again by failing to ensure that Aurora's CPP proposal will result in a competent, efficient rebuild of the Aurora Network.

The Commission will no doubt stand shielded by a claim that it has followed its own, deeply flawed, processes throughout this plane crash on top of a train wreck, that will be of no comfort to the very vulnerable subset of consumers who now face energy poverty as a direct result of the commissions many failings. The Commission will point to the existence of many "independent" reports – like the WSP report and the report of Aurora's verifier – but, shamefully, only released the report of the only reviewer not completely funded by Aurora two days before the final round of public consultation, held in Dunedin.

While there is much I disagree with in that (Strata) report, it does at least highlight the single most crucial factor in this process. Auroa does not have adequate data on the condition of its own asset - and it does not have the systems or processes to gather and analyse that data.

Here is a direct quote from the Strata Consulting report:

"On the basis of the documentation supplied by Aurora to support its CPP application, we consider that the AMMAT results are likely to be optimistic. This is especially the case for asset-related policies and strategies.

The implications of this for the proposed expenditure are that:

- ***it will be based on assumptions that may be unreliable;***
- ***proposed individual asset fleet replacement programmes could be understated or overstated; and***
- ***the aggregated portfolio of asset fleet expenditure is likely not to be prudent, efficient and deliverable.***

To ensure that these implications have been fully addressed Aurora should have:

- ***ensured a rigorous top-down review and challenge was applied to its bottom-up forecasts;***
- ***undertaken assessments and made adjustments at an asset portfolio level; and***
- ***applied sensitivity analysis to test the reasonableness and deliverability of its combined programme.***

The information we have reviewed indicates that these actions have not been taken and therefore we consider that the expenditure forecast is unlikely to meet a reasonable and prudent threshold."

Here is the only truly independent reviewer of Aurora and its proposal telling the Commission and consumers that the spend **"is likely not to be prudent, efficient and deliverable"**. Clearly the ears of the Commission are note well tuned to the sound of alarm bells, but surely **someone** can understand what is being said here?

Many millions of dollars has been spent on producing copious reports and analysis based on fundamentally flawed data.

Glenn Coates has offered the opinion that the WSP report is "a good first start". Here it is being treated as if it is an accurate and comprehensive review of the network. I think the reality is that the report is nothing more than a cursory desktop review of fundamentally flawed data with some token field observations thrown in as an attempt to add credibility.

The verifier report notes that some twenty percent of it's work still needed to be completed at the time of filing and suggested that the Commission needed to fill in the blanks – the Commission has done nothing to fill in the blanks. The verifier also heavily promotes the use of pole nailing as a solution for the remediation of overhead support structures.

As proof of the effectiveness of this technology the verifier says that it talked to a company that provides pole nailing services on both sides of the Tasman, who assured it the process was safe and effective! The next time I consider consulting a witchdoctor I will be sure to ask his considered medical opinion about the effectiveness of his treatments.

Let us be clear, there is no proof, of any kind, that pole nailing of the type used by Aurora returns a pole to a safe and compliant condition. Aurora's assertion that such structures are "certified" post application fails to specify what standard such structures are "certified" to. Yet the Commission has sat on its hands while millions of dollars have been injected into Aurora's pole nailing program. Like Worksafe, the question that the Commission asks in relation to this process is "do other companies use it". That's a little like promoting the cause of genital mutilation because some people believe that it is safe and effective. The question the Commission should be asking is "if this practice is safe, effective and economic why is everyone not busting down the doors to use it world wise" and "why have most of the companies who have employed this practice in New Zealand chosen NOT to carry on using it"?

Pole nailing, as used by Aurora, is not a Band-Aid on a broken leg, it is a sticker pretending to be a Band-Aid on a broken leg.

I could go on at length, but it's clear to me that most people involved in this shameful episode would much rather the beautiful lie than the ugly truth - and I have already wasted too much time trying to reason people out of a position that they, clearly, did not reason themselves into in the first place.

So where does that leave the powerless consumers of this natural monopoly? Clearly with a rock on one side and a hard place on the other. The Commission however has a duty to ensure that the rebuild is:

- Well targeted

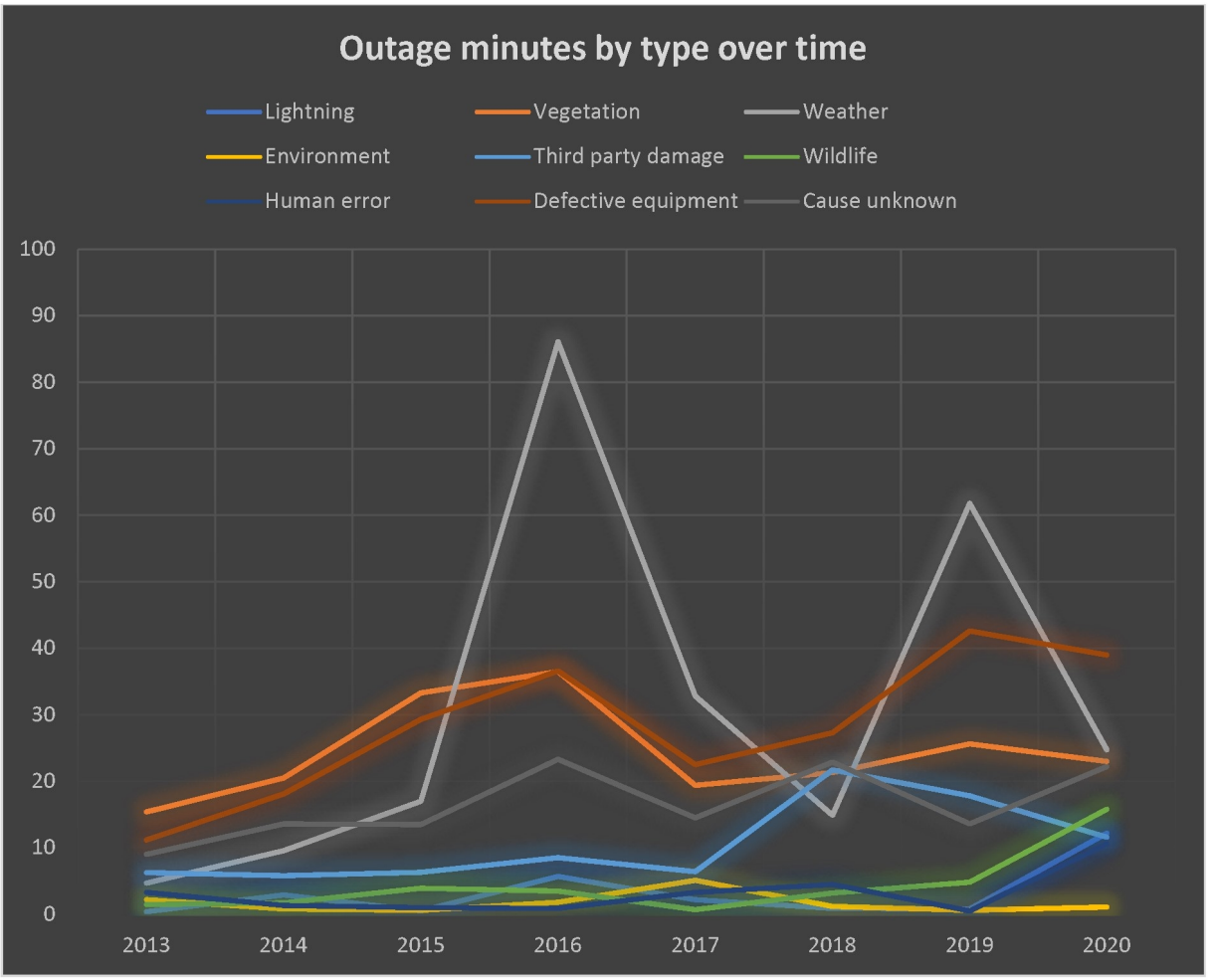
- Cost effective
- Constructable

Cost effective and constructable.

Let's start with well targeted.

The submissions from Aurora are full of data, data which it has generated and of which it has complete control. Data which the Commission's reviewer explicitly categorises as inadequate. Multivariate regression analysis conducted on bogus data simply produces a bogus answer, yet Aurora, the Commission and the various reviewers quote and comment on those bogus answers as if they were in some way reliable. They are not.

There are areas that give a clue as to the efficiency of the spend, vegetation is one of them. Graph one shows the relative outage minutes attributed to various causes on the Aurora Network since publishing those numbers became a requirement.



Graph 1

What we see here is a steady build up in the amount of disruption caused by vegetation until 2016, a step change back to 2013 levels in 2017 – and then a slight increase in outages for the following years. Compare that with the massive increase in the vegetation

management spend over that time, already the subject of comment by the Commission. Clearly this does not indicate that the spend has been well targeted or efficient, quite the reverse. There is NO lead time between vegetation control work and improved outcomes. I f you cut the tree today then the problem is instantly removed and the benefits are immediate.

Graph one also suggests that there has been a precipitous increase in the amount of outage time attributable to "Defective Equipment" – but is that in fact the case? The figure recorded for 2015 is almost triple the figure recorded for 2013, does anyone truly believe that equipment failure increased 262% in the space of two years? That is not the beginning of a bathtub curve, that is the beginning of the Aurora moon-shot.

Recent events have highlighted a critical weakness in the Commission's reporting rules. An outage in the last month at Bannockburn exposed the fact that Aurora can, at will, convert a Category B SAIDI event into a Category C SAIDI event. In that incident Aurora cancelled, without notice, a shutdown to several wineries. A couple of weeks later Aurora began the shutdown, again completely without notice. What should have been a Category B shutdown was neatly converted to a Category A event, highlighting the previously mentioned capability.

Given that it is accepted that Aurora has this capability, it becomes necessary to understand what effect incompetent outage management has had on the numbers that the Commission has been asked to consider. Has there been a real increase in unplanned outages, or do the figures simply reflect Aurora's well understood deficiencies around outage management? How many minutes have unnotified or over-run planned outages added to the unplanned outage column?

While you are looking at graph one you might like to think on this; does anyone really believe that the outage minutes caused by human error, lightning and wildlife all spontaneously tripled in 2020 compared to the long term average? Rubbish in equals rubbish out.

The reality is that the rising outage statistics have nothing to do with a suddenly and inexplicably deteriorating asset. What they do reflect is the increased rate of discovery of impaired assets as the accelerated work program progresses where a determination is made that the impairment must be immediately addressed. Should this truly be a Category C outage? If the answer is yes, then outages from this cause need far more scrutiny than has so far been undertaken.

Outages due to an increased rate of discovery will follow a vastly different curve over time than outages strictly attributable to a deteriorating asset. Outage projections need to include this variable as a significant factor in their calculations – the models prepared by Aurora do not.

Cost effective and constructable.

Which brings us neatly to cost effective – and how it is intricately connected to constructable.

The assertions of the various reviewers in this regard are frankly ludicrous. All of the reviewers rely on their belief that a competitive environment has been created amongst the

contractors on the Aurora Network – and that this environment will guarantee a cost-effective build. **This belief is fundamentally and irretrievably flawed**.

The next clip is from the Strata Consulting Report, but it's indicative of the position taken by all relevant parties:

"The new FSA delivers an efficiency benefit across the maintenance portfolios

Using a top-down assessment, Aurora has included in its CPP proposal $1,372,983 of efficiency benefits (RY20 dollars)[176] from Aurora's new contracting arrangements reducing network maintenance opex over RY22 to RY26. Table 3 gives the breakdown of the $1,372,983 of benefits.

Table 3: Top-down assessment of efficiency benefits from new FSA	***Opex portfolio***	***Benefit driver***
Estimated benefit		
$282,869[177]	*Preventive maintenance*	*Improved contractor productivity due to the increased competitive tension created by Aurora's new contracting approach.[178]*
$149,264[179]	*Corrective maintenance*	*Improved contractor productivity due to the increased competitive tension created by Aurora's new contracting approach.[180]*
$205,512[181]	*Reactive maintenance*	*Improved contractor productivity due to the increased competitive tension created by Aurora's new contracting approach.[182]*
$735,338[183]	*Vegetation management*	*Improved contractor productivity due to the increased competitive tension created by Aurora's new contracting approach.[184]*
$1,372,983	***Total***	

Let's get real about this – **there is no effective competition for work on the Aurora Network**. In year 2018/2019 almost $20M of planned work was carried over into the next years budget. Year 2019/2020 results will be even worse. **There is more work available than all of the contractors combined can complete.**

Even the reviewer started to get this one right, noting that they had concerns about the resource planning within Aurora (I share their concerns, and raise them to a new level), but then they went away and had a chat and a cup of tea with Richard Fletcher and came away reassured. **I am not reassured, neither should you be**.

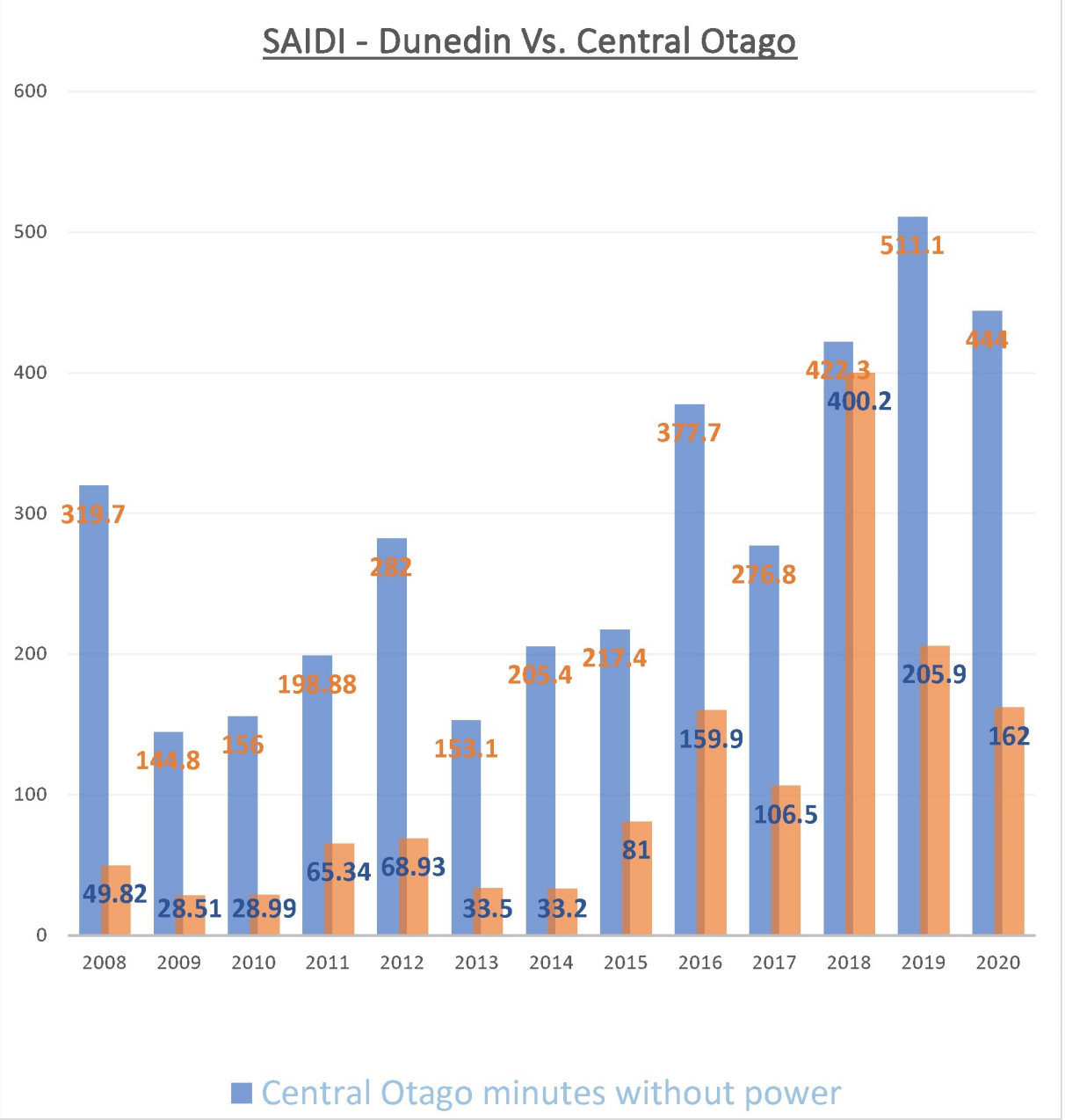
The easily accessible data shows that the company's resource planning is abysmal.

Aurora will undoubtedly come back and point out that where some, well defined, projects have been released for tender there has been a marked difference in the prices quoted by the various tenderers. As someone with forty years' experience in that process, I can assure you that this outcome is no indication of competitive pressure, quite the reverse. Widely divergent price submissions are a clear indication that at least one tenderer doesn't really

want the work but will take it if the price is right. Closely matched pricing indicates that either everyone in the room has a sharp pencil or that all parties have been colluding.

Internally the astronomically high opex figures that Aurora proposes are simply indicative of their "money no object" approach to the problem that there own incompetence has created.

Inequity across regions



Graph 2

Graph 2 illustrates the second inequity faced by the consumers in Central Otago. The pricing inequity has already been treated by the Commission in the manner of Pontius Pilot, it's not our problem – go bother the Electricity Authority. There is another inequity to address here however.

The Commission requires EDB's to report separately for each "non contiguous" area that it supplies. Given that is the case I would like to know why the Commission accepts disclosures from Aurora listing only two sub-networks when five actually exist (although Te Anau may not reach the size criteria the Commission has set). Please regard this question as a request for information under the terms of the Official Information Act. The disclosures that are published break the Aurora network down into only two sub-networks, Dunedin and Central Otago.

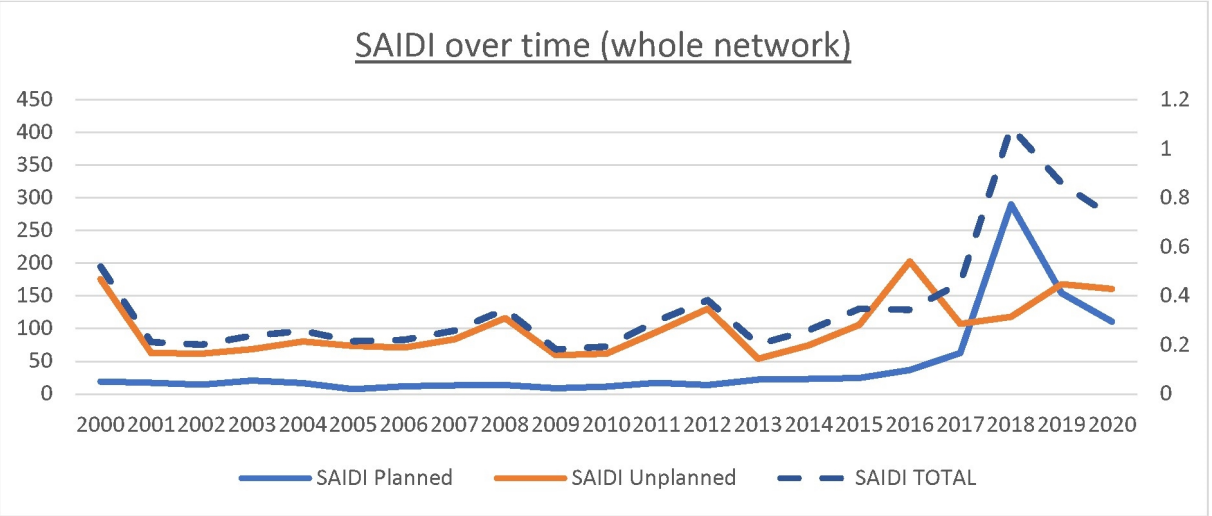
Even given this inadequate level of reporting, some conclusions are obvious. Network reliability, as measured by SAIDI is dramatically lower in Central Otago than in Dunedin. In fact, in all but one year, Aurora has disclosed that Central Otago's reliability is worse by between a factor of two to a factor of six that of Dunedin's.

I suspect – and my suspicions have an unnerving habit of proving correct – that if the sub-networks were correctly reported, the Central Otago sub-network would look even sicker once the well undergrounded and relatively new Frankton sub-networks figures were dis-aggregated.

The Commission must put in place:

- Sufficiently granular reporting so as to allow an accurate picture of the regional differences in reliability to be discovered.
- Levers that push Aurora to address this obvious inequity.
- A level of audit that reassures the consumers of Central Otago that resources are being appropriately directed to address this problem.

Overall Network reliability and the Commission's proposal to increase SAIDI limits.



Graph 3

Aurora have asked the Commission to increase the unplanned SAIDI limit to 140 minutes. The Commission has proposed to increase the count to 110 minutes. I contend that the 80-minute target is achievable and justified.

As already discussed, Category C SAIDI minutes are not simply a measure of the effects of faults on the network. They are, in fact, also a measure of Aurora's competence – or lack thereof – in planned outage management. When Graph 3 is examined it can be seen that, even given the chaotic nature of Aurora's response to the problem that they have created, they have achieved a figure of 100 minutes for the year. From 2019 to 2020 there has been a modest improvement in their performance. The Commission must keep Aurora's feet to the fire to ensure that these figures continue to improve.

In Graph 1 we can see that third party damage became a significant issue in 2017. It seems obvious that such a sudden rise in in minutes is certainly related to the amount of contractor created faults that have increased in proportion to the increased level of work on the network. Such faults are entirely within the control of Aurora and, given the obvious safety implications, they should not be allowed any discount for these numbers. The same argument applies to the human error category. Aurora erroneously claims that it has no control over these factors when the opposite is in fact the truth.

As previously discussed, outages due to faulty equipment are certainly related to the rate of discovery, which should trend down significantly over the next five years. Vegetation should already be trending sharply downwards now. That it is not is quite frankly inexplicable. Aurora's argument that it owns an "aged network" does not hold water.

The rate of increase in minutes attributed to defective equipment is simply not credible. Using a GLM is not an appropriate way to develop projections of future SAIDI performance when this is not a "steady state" and the inadequacy of the underlying data is taken into account.

It is clear that everyone involved in this process is supremely invested into putting some numbers around their projections. It is also clear that there is simply no reliable data to allow for that to happen in any meaningful way. The effort and money thus wasted could have stayed in consumer pockets or been directed to areas with at least some prospect of success.

The Commissions failure to mandate a separate MAR for each area

Perhaps the single most disappointing aspect of the Commission's draft decision is the refusal to mandate a separate MAR for each region. Given that Aurora has chosen to split the Network into three areas for the purpose of billing – and two for the purpose of reporting – separate MARS would be the single best tool to ensure that Aurora did not use its powerful monopoly position to behave anti-competitively towards PowerNet and prejudiciously towards consumers in Central Otago, surely a core function of the Commission.

Separate MAR's would also give guidance to a future purchaser of any given part of the Network on future income, a factor that seems increasingly likely to be important.

The reason given by the Commission for rejecting this solution, that it will involve too much work for the Commission, is simply unacceptable.

Measurable outcomes

The Commission has singularly failed to propose any method by which consumers could measure the effectiveness of past or future Aurora spend. The decision, as it stands, runs the risk of being an exercise in determining how quickly Aurora can spend money. We simply do not need proof of Aurora's ability in that area.

Aurora have provided the Commission or its agents with a raft of figures that purport to illustrate that its contractors are efficient and build costs within industry norms. That information is entirely unverified and unaudited. Forty years of experience tells me that those figures, the figures that the Commission have relied on for their determination, are largely a fiction.

It is therefore imperative that the Commission requires Aurora to completely disclose the information around its Capex spend each year. For any meaningful analysis of the spend to be undertaken consumers must have enough information available so that they can determine just how closely – or not – build costs follow the claims made by Aurora in their application. **This is a critical factor in restoring consumer confidence.** Enough information must be disclosed to allow for a meaningful and accurate comparison to be made between Aurora's claimed cost of build for any given asset and what it actually achieves.

I note with some concern that the Commission's decision completely ignores my earlier submission where I asked the Commission include metrics of safety outcomes as part of the disclosure regime for Aurora. As I pointed out in those submissions, Richard Fletcher is on the record as claiming that the current enormous increase in proposed spend will only be enough to improve safety outcomes – not reliability – yet the Commission has chosen not to include any element of safety monitoring in its decision. Aurora's request for an outrageously high SAIDI limit simply reinforces the point that they believe safety outcomes are the only ones that will improves – yet the Commission refuses to measure them. Odd.

OPEX and SONS

It is very clear from observing Aurora's outstandingly poor performance in the areas of customer communication and SONS that the spend in these areas is not well directed. Special attention needs to be paid to levers that can be created to move Aurora, however reluctantly, towards being a customer focused organisation. Aurora has a bloated, 24/7 Network Operations capability - yet it can't update its website with customer outage information outside of business hours. It fails consistently to keep promises with local authorities about the disclosure of requested investigation reports. The level of community trust in the company is appallingly low, for good reason.

The Commission should request an undertaking from Aurora that it publish all reports into safety related issues that occur on its network and that it be required to undertake such reports at the request of any community board within its area of supply or any council or regional council.

Decision making in the complete absence of reliable data

The Commission considers itself constrained by the mandated time limits within which it works. The implication of this is that decision outcomes will be sub-optimal. I note with alarm that the Commission has allowed for Aurora to propose re-openers based on projects with the remarkably low trigger value of two million dollars. This mechanism seems to me to be purpose designed to allow Aurora to incrementally ratchet up pricing over time.

What I believe would to be far more important is provision to review Aurora's MAR based on the build they have achieved in the previous year. Note I mention the build – not the dollars spent. Specifically, the Commission need to include a mechanism whereby the dollar value of any years build is determined not by the amount of capital expenditure, but by the cost projection that Aurora have already provided for that class of asset multiplied by the quantity of asset built. Now that would return consumer confidence.