

# Have your say on Aurora Energy's proposal to change its prices and quality standards to fund major network investment

Discussion of key issues and questions for consumers and stakeholders

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## Why we have written this paper

On 12 June 2020, Aurora Energy (Aurora) applied to the Commission to charge its customers more to fund a \$383 million three-year investment plan to make its electricity lines network safer and stabilise the reliability of its network to prevent further deterioration.

We are in the process of determining whether Aurora's application includes sufficient information for us to assess it. This involves checking the information we have received and seeking additional information where required. We expect to confirm whether Aurora's proposal is sufficiently complete by 7 August 2020 in order to move onto the next stage of our assessment, which covers the issues discussed in this paper.

We have written this paper to:

- identify key issues that we consider stakeholders should be aware of before we make our draft decision; and
- seek feedback on Aurora's proposal and our views in particular areas.

This paper is one of six documents that we have published as part of our initial round of consultation on Aurora's proposal:

1. Have your say on Aurora Energy's investment plan Consumer Summary Key Issues paper – a 10-page document (20-minute read) which is an executive summary/overview of the next five documents below
2. Have your say on Aurora Energy's investment plan Consumer Feedback Form with key questions for consumers (4-page document, 10-minute read)
3. Our assessment of Aurora Energy's investment plan factsheet (4-page document, 10-minute read) which explains our role, process and approach to setting Aurora's customised price-quality path (CPP)
4. Have your say on Aurora Energy's investment Proposal Factsheet which is a 2-page document (5-minute read) that summarises Aurora's proposal
5. Discussion of key issues and questions for consumers and stakeholders (this paper, 40-page document, 70-minute read)
6. Regulatory framework and how we will assess the proposal (11-page document, 15-minute read) – describes the high level-framework that we will apply in setting Aurora's CPP and explains how we will assess the proposal.

These documents, along with more information on the project including Aurora's full proposal, can be downloaded from [www.comcom.govt.nz/aurora](http://www.comcom.govt.nz/aurora)

Feedback can also be submitted in writing to [feedbackauroraplan@comcom.govt.nz](mailto:feedbackauroraplan@comcom.govt.nz)

Consultation on this paper closes on **20 August 2020**.

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## Introduction

### Purpose of this paper

- X1 This paper sets out some key areas we are considering in making our decisions on whether Aurora's investment plan is justified and what the associated levels of revenue and quality of service should be. We are interested in your views on these issues and in some instances have specific questions we would like your feedback on.
- X2 Please note that the following topics are out of scope for this paper as regulatory oversight of these issues is outside our role:
- X2.1 discussions about Aurora's owner/shareholders Dunedin City Council, Dunedin City Holdings Limited and dividend payments
  - X2.2 detailed customer issues
  - X2.3 detailed safety regulator (WorkSafe) issues
  - X2.4 transmission pricing
  - X2.5 distribution pricing
  - X2.6 Aurora's pricing methodology
- X3 We have grouped the issues arising from our initial assessment of Aurora's investment plan into themes in Table X1. Please note that these issues are not an exhaustive list of what we are considering in making our decision, and we are interested in your views on any aspect of Aurora's proposal or the independent Verifier's report.

**Table X1 Summary table**

Chapter	Chapter Title
<b>What does Aurora's investment plan mean for me?</b>	
<b>Chapter 1</b>	Options for minimising consumer price shocks
<b>Chapter 2</b>	The length of the CPP
<b>Chapter 3</b>	Identifying and mitigating safety risk
<b>Chapter 4</b>	Quality of services and power outages on Aurora's network
<b>Chapter 5</b>	Effectiveness of consumer consultation
<b>What is Aurora going to be spending my money on?</b>	
<b>Chapter 6</b>	Operating expenditure
<b>Chapter 7</b>	Capital expenditure
<b>Chapter 8</b>	Urgent project allowance
<b>How to ensure Aurora delivers on its investment plan and is held accountable?</b>	
<b>Chapter 9</b>	Risks associated with Aurora delivering on its investment plan
<b>Chapter 10</b>	Impact of the COVID-19 pandemic
<b>How will Aurora and the Commission ensure Aurora fixes its network for the long-term?</b>	
<b>Chapter 11</b>	Asset management maturity

## **Chapter 1 Options for minimising consumer price shocks**

### **Issue description**

- 1.1 Aurora's proposed investment plan will be funded through significant increases in electricity distribution charges. We are seeking your views on the various options we have at our disposal to manage any potential price shocks while also considering what impact this will have on Aurora's financial stability and its ability to fix its network.

### **Why this is important and what is the impact on you**

- 1.2 Aurora's proposal could result in sharp electricity price increases for consumers. Some consumers could experience hardship as a result. Smoothing price increases over time is one way of softening the shock of these increases and giving consumers time to adapt their behaviour and consumption.

### **Expected price increase for Aurora's customers**

- 1.3 Aurora proposes a significant increase in annual allowable revenue from 2020 to 2024. How this translates into higher distribution charges for individual customers will depend on how Aurora allocates its revenues across different pricing regions and different consumer groups, and how much electricity a consumer uses. Aurora estimates its distribution prices for a typical residential consumer will increase by between 48 to 66% (in constant dollars) over the course of Aurora's proposed three-year CPP depending on where they live.
- 1.4 However, electricity distribution charges are only one component of a consumer's bill. The other components include electricity generation, transmission and retail costs. Typically, distribution charges make up around a quarter of the average residential consumer's electricity bill (excluding GST). Aurora estimates the overall consumer bill increase will be between 10.6 to 16.7% (in constant dollars) over the course of its CPP.

### **Our options for minimising price shocks for consumers**

- 1.5 We are considering various options to minimise or smooth price shocks for consumers while balancing these against the need to ensure Aurora has enough money to fix its network. However, these options do not avoid the costs associated with fixing the network, rather they adjust the price increases into a more manageable and smooth profile. In addition, any costs shifted into the future through smoothing incur an interest expense to reflect the cost of financing, so the total amount recovered from consumers will be higher as a result. This raises the question of to what extent consumers are willing to pay this additional expense to smooth the payment over time.

- 1.6 The various smoothing options we are considering include:
- 1.6.1 Adjusting the starting point of Aurora's total allowable revenue in the first year of its CPP and the annual rate of change in revenues over the duration of the CPP to smooth price increases at the start of the CPP.
  - 1.6.2 Examining spreading the price shock into subsequent regulatory periods in order to soften the annual rate of change in prices.
- 1.7 These options are examined in the following paragraphs.

### **Price smoothing within the CPP period**

- 1.8 Aurora's application proposes to smooth its revenue in order to even out any volatility and manage the price impact on consumers. Aurora proposes to set its opening revenue for 2022 to a similar level to its 2021 revenue, and then increase its revenue at a higher rate to recover the foregone 2021 revenue plus the interest expense to reflect the cost of financing.<sup>1</sup> In present value terms the overall effect of smoothing is zero, so Aurora and its consumers are no better or worse off.
- 1.9 In developing this approach, Aurora has adopted feedback from its customers and stakeholders on their preference for a lower initial increase at the start of the CPP period to give them time to adjust to the higher prices.
- 1.10 A potential downside of this approach is that revenues at the end of the CPP may be higher than at the start of the next regulatory period, and there are larger price increases in the final two years of the CPP. There may be alternatives worth us exploring with consumers that balance their needs.

### **Price smoothing across multiple regulatory periods**

- 1.11 Another option for smoothing price shock for consumers is to spread the revenue changes across more than one regulatory period. In some ways this approach is similar to varying the length of a CPP, but it may offer a longer time over which to spread revenues.
- 1.12 This approach is being considered for smoothing the impact of Aurora's regulatory incentive adjustments. Aurora has regulatory incentive revenue allowances that it is entitled to recover. Given the large size of these incentive adjustment amounts, Aurora has applied for these costs to be recovered over two combined CPP periods, thereby smoothing the impact of these costs on prices that consumers pay.

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<sup>1</sup> This is the regulatory year beginning 1 April 2021, ending 31 March 2022.

- 1.13 However, the downside of this approach is that it may deny Aurora the immediate cashflow that it needs to fix its network and it will need to borrow money to fund these investments.

### **We seek your views on this issue**

**Question 1.1:**

We would like to hear your views on Aurora's proposed price increases and how best to manage price shocks for consumers. For example, would you prefer prices to increase immediately followed by inflationary adjustments, or would you prefer prices remain steady initially to give you time to adjust, but then be adjusted at a faster rate?

**Question 1.2:**

Would consumers be willing to pay more in order to smooth price shocks by shifting them into the future? (Note that this means the total amount recovered from consumers will be higher as a result of the interest expense to reflect the cost of financing, which in this case is 4.6% per annum.)

**Question 1.3:**

What are your views on extending the price increases across multiple regulatory periods to better manage price shocks for consumers? (Note this could cause Aurora to have to borrow further to fund its investment.)

## Chapter 2 The length of the CPP

### Issue description

- 2.1 As a result of its historical under-investment, Aurora has signalled it requires significant investment over time to fix its network and has signalled this could take more than ten years. In this context, Aurora's CPP application represents just one step in the process of fixing its network and Aurora has indicated it is likely to require more than one CPP period to get back to business as usual.
- 2.2 CPPs can be between three and five years in length, with five years being the default period. The length of a CPP is a decision we make, and we would depart from the default five-year period only if we considered it was in the long-term interests of consumers.
- 2.3 To ensure we have sufficient information to make our decision, all CPP applicants are required to provide a full five years of forecasts and data. Aurora has done so, although it has requested that the length of its CPP be set to three years primarily because the quality of its asset condition data and systems makes it difficult to accurately determine the investments it needs for a longer CPP. Aurora intends to improve its asset data and systems during its CPP so it has greater certainty of its need when it applies for a second CPP

### Why this is important and what is the impact on you

- 2.4 The length of this first CPP will not necessarily change Aurora's expenditure and the need for price increases over time.
- 2.4.1 Aurora has proposed \$609m under a five-year CPP and \$383m under its preferred three-year CPP. Using an annualised average, expenditure for the three-year CPP is approximately \$128m per year compared with approximately \$122m a year for the five-year CPP.
- 2.4.2 Under a three-year CPP, the \$226m forecast in years four and five will be sought subsequently. Effectively, the duration of the CPP determines whether we consider that additional revenue now or later.
- 2.4.3 If we approve a default five-year CPP, Aurora's proposal would result in a further consumer bill increase in years four and five of between 2.6 and 3.2%, or approximately \$5 to \$6 more a month depending on where you live.

## Our current thinking

2.5 In making our decision we will weigh up:

- 2.5.1 The conceptual benefits of a shorter period versus a longer period—there are advantages and disadvantages of each approach. A shorter CPP period reduces the risk of Aurora not having the sufficient funding where issues are identified mid-period but unable to be taken account of in the CPP revenue allowances until the next period. However, it would also require Aurora to begin work on its investment application earlier, which could place strain on resources available to undertake the work required to fix its network. A longer CPP provides certainty of prices and quality for both consumers and Aurora for a longer period of time.
- 2.5.2 The quality of Aurora’s forecasts that underpin its CPP—while Aurora faces challenges in its asset condition data and systems, the Verifier had confidence in Aurora’s forecasting approaches and did not think years four and five of Aurora’s data significantly greater degree of uncertainty than the first three years of the proposal.
- 2.5.3 The type of regulation that would apply to Aurora in years four and five if it were not on a CPP—if Aurora’s CPP expires after three years it may potentially revert back to the default price-quality path that did not suit its needs previously. Aurora has signalled its intention to apply for a second CPP. However, the Commerce Act appears not to allow them to do this until 2026, so if we determined a three-year CPP there would be a gap.
- 2.5.4 Whether a five-year CPP can be adapted to address the uncertainty Aurora faces—Aurora’s concern is that the better data that becomes available during the CPP period may identify further investments that are required which its CPP does not allow for. Our input methodologies can allow for additional expenditure mid-period.<sup>2</sup> However, these methodologies have specific triggers which may or may not apply to Aurora’s circumstances. We are considering whether any adjustments to the methodologies are required and are appropriate. To make adjustments we would do so by varying the input methodologies that apply to Aurora with Aurora’s agreement. We would consult on any input methodologies variations as part of our draft decision.

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<sup>2</sup> The Input Methodologies are the upfront rules and processes we set to underpin our regulations.

## **We seek your views on this issue**

### **Question 2.1:**

Would you prefer a three or a five-year CPP period and what do you think the Commission should consider in making its decision on the length of the CPP period that will apply to Aurora?

## Chapter 3 Identifying and mitigating safety risk

### Issue description

- 3.1 Aurora has stated that expenditure on its network is required to address safety and reliability risks, and that it is facing a “multi-year period of investment catch-up and renewal work to avoid new safety risks emerging and to stabilise our reliability performance.”
- 3.2 The 21 November 2018 WSP report into the state of Aurora’s network identified a range of safety issues on its network and we will track how these are being resolved before and during the proposed CPP.<sup>3</sup> We are also looking at how Aurora is identifying safety risks on its network, how it is addressing these, and the decision-making frameworks it has implemented to resolve them.

### Why this is important and what is the impact on you

- 3.3 While we are not the safety regulator, we must determine whether expenditure to meet statutory safety obligations and minimum electricity network design standards is cost effective.
- 3.4 We are also interested in the prudence and cost-effectiveness of safety expenditure that goes beyond that required to meet statutory safety obligations and minimum electricity network design standards.
- 3.5 We are asking Aurora about how safety issues are identified, quantified, prioritised, and mitigated because this decision-making process not only affects safety outcomes, but also the costs consumers face.

### We know there have been safety issues on Aurora’s network

- 3.6 We will review how Aurora identifies safety risks and how this risk is factored into investment decision-making.
- 3.7 The WSP report identified a number of high priority asset safety risk issues. The well-publicised network asset failures that compromised public safety, such as pole failures and high voltage conductors contacting the ground, demonstrate that understanding and addressing safety risk is a key issue for Aurora.<sup>4</sup>

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<sup>3</sup> WSP Independent Review of Electricity Networks – Aurora Network Final Report Table F.1 page F-1 available at <http://comcom.govt.nz/regulated-industries/electricity-lines/projects/aurora-energy-independent-review-of-the-state-of-the-network/independent-review-received>.

<sup>4</sup> The Verifier notes in its report that “There are 162 km of ACSR conductors and 35 km of steel conductor currently exceeding their expected life. The failure rate of these ACSR and steel conductors was considered high resulting in outages. Recent public safety incidents can be related to the failure of conductors. See Verifier’s report Table F.3 page 473.

- 3.8 The Verifier identified that Aurora has been and continues to take actions to address the safety risk identified in the WSP report, along with risks it has identified subsequent to the report being published.
- 3.9 The Verifier concluded that while Aurora saw managing safety as an important part of its business practice, its understanding of safety risk, and residual risk following network investment, is not fully mature.<sup>5 6</sup>
- 3.10 The Verifier also noted that a “lack of specific asset class performance measures and targets can affect expenditure forecasts – establishing interim targets would have provided a degree of understanding of prudent levels of residual risk (safety as the key focus) and would have assisted in decision-making for each renewal program”, and that Aurora intends to develop these over the CPP period.<sup>7</sup>
- 3.11 In mature asset management systems, safety risk considerations should be demonstrable, especially how these are identified, prioritised, and then addressed.
- 3.12 Safety risk cost trade-offs ideally should be made using industry accepted risk frameworks like ALARP.<sup>8</sup> Such frameworks are especially useful when proposing safety mitigation investment that goes beyond the investment levels that are needed to meet statutory safety obligations and industry design standards (the discretionary safety expenditure).
- 3.13 As we review the Aurora CPP proposal, we will assess how Aurora is progressing the way it addresses its safety risks, in line with the Verifier’s conclusion that Aurora is planning to address this over the CPP period. We will test how it is addressing the safety risks identified in the WSP report, and how it plans to ensure that safety risks are identified, mitigated and minimised in the future.

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<sup>5</sup> Verifier’s report Section 1.5.7 page 20 available at [https://comcom.govt.nz/data/assets/pdf\\_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf](https://comcom.govt.nz/data/assets/pdf_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf).

<sup>6</sup> Verifier’s report Section 1.5.7 page 20.

<sup>7</sup> Verifier’s report Section 4.1.3 page 56.

<sup>8</sup> ALARP – As Low As Reasonably Practicable. Refer the Health and Safety at Work Act.

## **We seek your views on this issue**

### **Question 3.1:**

Do you agree that, given Aurora's present asset management maturity, improving its understanding of safety risk and associated costs over the CPP period should be a priority?

## Chapter 4 Quality of services and power outages on Aurora's network

### Issue description

- 4.1 As a result of its historic under-investment, the safety and reliability of Aurora's network has been deteriorating over recent years. Removing unacceptable safety risks is the main driver of Aurora's proposal. In response to consumer consultation and COVID-19, in order to minimise price impacts on consumers Aurora has removed or deferred expenditure that directly targets reducing the level of power outages experienced.<sup>9</sup> Aurora has signalled that improvements in network reliability will be considered as part of a second CPP proposal.

### Why is this important and what is the impact on you?

- 4.2 Consumer power bills are expected to increase by 10.6 to 16.7% under Aurora's proposal, which addresses safety improvements and stabilises its reliability performance. Overall, Aurora's proposal suggests that improving reliability would require more investment and larger price increases for consumers and/or changing its proposed investment expenditures to place less emphasis on improving the safety of its network. We will test whether this is the case and the efficiency of its proposed expenditure (see the discussions on proposed expenditure in Chapters 6 and 7).
- 4.3 In addition to caring about the overall price of electricity, consumers have said that they:<sup>10</sup>
- 4.3.1 expect Aurora to communicate clearly when there is a planned power outage or an unexpected power outage; and
  - 4.3.2 value Aurora maintaining a safe network that is reliable and resilient.
- 4.4 We would like feedback on Aurora's proposal that it:
- 4.4.1 focuses more on the safety of its network rather than improving reliability;
  - 4.4.2 allows the number and duration of unplanned power outages relative to recent performance to modestly increase (ie, get slightly worse);
  - 4.4.3 increases the number and duration of planned power outages to facilitate the safety-driven investment and improvements to how you are notified; and

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<sup>9</sup> Aurora Energy "Asset Management Plan" (April 2020 – March 2030), at page iv.

<sup>10</sup> Aurora Energy "Customised Price-Quality – Consultation Report" (12 June 2020), at para 112 – 113.

- 4.4.4 retains the existing financial incentive schemes to efficiently manage power outages.

## We seek your views on this issue

### Question 4.1:

Do you consider that a safe, reliable, and resilient network and clear communication about outages capture the main features of quality that you expect to be included given the proposed increase in Aurora’s prices?

### Question 4.2:

Are there other quality features that you consider should be considered as part of the assessment?

## Aurora is investing to improve the safety of its network

- 4.5 Aurora’s immediate focus is on improving the safety of its network. It expects its safety-driven investments will reduce the likelihood of asset failures and help stop the trend of deteriorating reliability (frequency and duration of power outages). It is not targeting noticeable improvements in reliability of its network over the next five years.<sup>11</sup>
- 4.6 Aurora’s key performance targets for health and safety are set out in Table 4.1. It shows Aurora seeks to reduce the number of injuries to 3.75 per 200,000 hours worked in 2023 and that it is targeting zero harm to the public.

**Table 4.1 Aurora’s health and safety performance targets (calendar years)<sup>12</sup>**

Target	2018	2019	2020	2021	2022	2023	2024	2025
TRIFR	4.63	5.00	<4.50	<4.25	<4.00	<3.75	<3.50	<3.25
Actual harm to public	0	1	0	0	0	0	0	0

<sup>11</sup> Aurora Energy “Asset Management Plan” (April 2020 – March 2030), at page iv and page xiii. Aurora Energy “Customised Price-Path Application” (12 June 2020), at para 104 and 110.

<sup>12</sup> Total Recordable Injury Frequency Rate (TRIFR) per 200,000 hours worked. In 2019, one member of the public was harmed receiving a non-fatal electric shock but was fortunately not hospitalised. The incident could have been more severe. Aurora’s Asset Management Plan notes that it investigated this incident and shared the findings from the investigation across its organisation. See Aurora Energy “Asset Management Plan” (April 2020 – March 2030), at page 50.

## We seek your views on this issue

Aurora's investment is targeting safety improvements, including ensuring its assets do not pose safety risks to the public.

### Question 4.3:

What information should Aurora share with its consumers to show how it is addressing and mitigating these risks?

### Question 4.4:

Do you think Aurora should report publicly on any safety-related targets and if so, what should these targets be? These might include Aurora's performance targets at Table 4.1 above.

## Quality standards and incentives framework

- 4.7 Under price-quality regulation for electricity lines companies, we are required to set quality standards. Currently, the measures we use to set quality standards concern reliability as measured by the frequency and duration of power outages on the network and we set them to deter network deterioration. We also create financial incentives to improve reliability where it is efficient to do so.
- 4.8 Consistent with the approach we apply to other regulated electricity lines companies, we intend to separate the standards and incentives applying to 'planned' and 'unplanned' power outages for Aurora. 'Planned' power outages generally relate to regular maintenance and scheduled replacement of equipment. 'Unplanned' power outages relate to an unexpected failure of equipment that has a variety of causes (eg, storms) that are usually exacerbated by the underlying age and condition of the assets.
- 4.9 Aurora is proposing to maintain the broad structure of the quality standards and quality incentives it currently faces. However, it has proposed changes to some of the values of those standards and incentives to better reflect its particular circumstances and its customers' preferences.<sup>13</sup>
- 4.10 We would like feedback on Aurora's proposal to retain the quality standards and the quality incentive settings and its proposed changes to values, which are discussed in more detail below.

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<sup>13</sup> Aurora Energy "Customised Price-Path Application" (12 June 2020), at para 103, 883, 935.

- 4.11 We note that in addition to Aurora’s CPP application, Aurora has submitted a Quality Standard Variation proposal which seeks changes to the quality standards and quality incentive measures it faces during the current year (ie, the year ending 31 March 2021 prior to the CPP starting on 1 April 2021). You can find this proposal on our website, where we will be updating you on how we intend to consider this proposal.<sup>14</sup>

### **Aurora expects more unplanned power outages than in recent years**

- 4.12 Aurora’s proposal is targeting safety improvements rather than targeting improvements in reliability. It expects overall reliability performance to decline slightly over the CPP period (ie, more unplanned power outages) compared to what customers have recently experienced.
- 4.13 Aurora is forecasting that on average, consumers can expect about 111 minutes (excluding the full impact of potentially severe weather events, which can be volatile and difficult to predict) of unplanned power outages per year over the 2022 - 2026 period – up 4% on the most recent five-year period (2016 - 2020).<sup>15</sup> However, Aurora expects its safety-driven investment to help stop its recent trend of deterioration as shown in Figure 4.1 and 4.2 below.<sup>16</sup>
- 4.14 Figure 4.1 and Figure 4.2 compare Aurora’s proposed unplanned power outage duration (SAIDI) and frequency (SAIFI) limits and targets to the limits it currently faces and its historical performance.<sup>17</sup> Aurora is proposing a significant relaxation in its unplanned reliability standards, setting its proposed power outage targets at a poorer performing level than that experienced in recent years, with the exception of one year.<sup>18</sup>

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<sup>14</sup> See <https://comcom.govt.nz/regulated-industries/electricity-lines/electricity-lines-price-quality-paths/electricity-lines-default-price-quality-path/2020-2025-default-price-quality-path>.

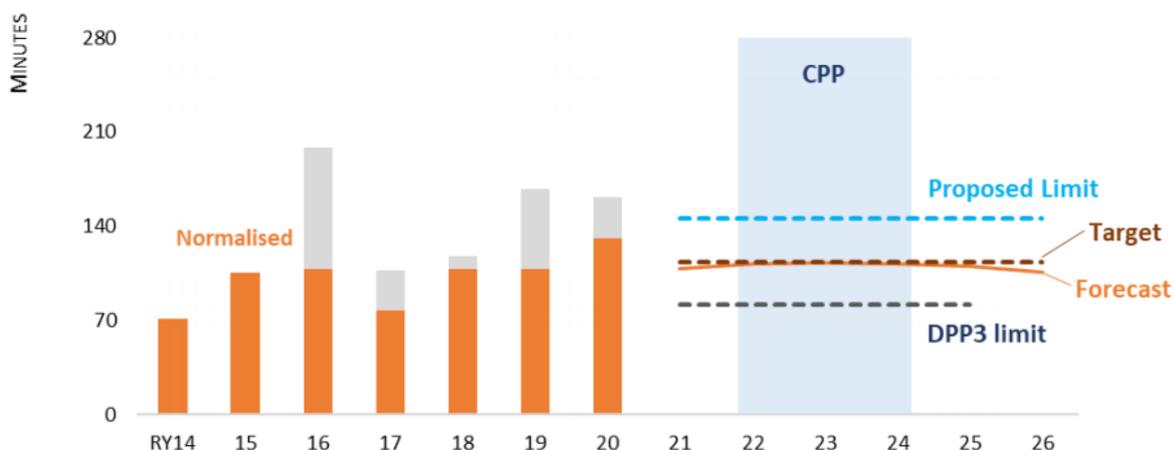
<sup>15</sup> The forecast of 111 minutes is almost identical to Aurora’s forecast of 112 minutes of unplanned power outages, on average per consumer, over Aurora’s proposed three-year CPP (2022-2024).

<sup>16</sup> Aurora Energy “Customised Price-Path Application” (12 June 2020), at para 36.

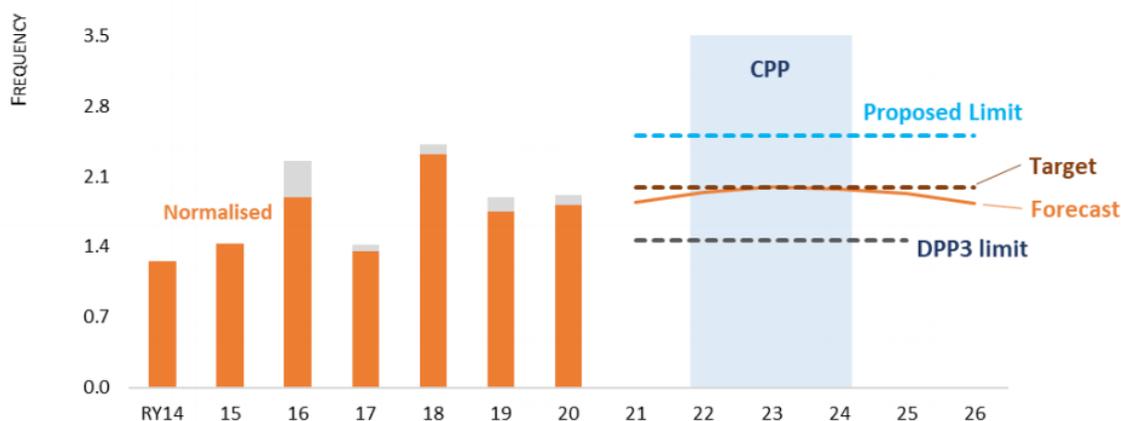
<sup>17</sup> Aurora Energy “Customised Price-Path Application” (12 June 2020), at para 110-111 and figures 12 and 13.

<sup>18</sup> Compared to its proposed SAIDI and SAIFI targets, Aurora experienced longer unplanned outages in 2020 and more frequent outages in 2018.

**Figure 4.1 Actual, forecast and proposed duration of unplanned power outages (SAIDI RY14-RY26)<sup>19</sup>**



**Figure 4.2 Actual, forecast and proposed number of unplanned power outages (SAIFI RY14-RY26)<sup>20</sup>**



<sup>19</sup> The grey bars in this chart show the actual minutes of historical outages Aurora’s customers experienced. The orange bars and the forecast information is “normalised” to exclude the full impact of major interruption events, including severe weather events, which can be inherently volatile. For further discussion on how we normalise unplanned interruptions see Attachment K of Commerce Commission “Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision – Reasons paper” (27 November 2019).

<sup>20</sup> The grey bars in this chart show the actual number of historical outages Aurora’s customers experienced. The orange bars and the forecast information is “normalised” to exclude the full impact of major interruption events, including severe weather events, which can be inherently volatile. For further discussion on how we normalise unplanned interruptions see Attachment K of Commerce Commission “Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision – Reasons paper” (27 November 2019).

- 4.15 We intend to focus on understanding the relationship between Aurora’s proposed expenditure and the health of its assets (see chapters 6 and 7) with likely impacts on the reliability of its network. Understanding this relationship will help us set Aurora’s unplanned standards and targets that provide appropriate incentives on Aurora to manage costs efficiently and provide service reliability that reflect its customers’ expectations. We understand that many customers have said they do not want to pay more for improved reliability at this time.<sup>21</sup>

### **We seek your views on this issue**

Power bills are expected to increase by 10.6 to 16.7% percent under Aurora’s proposed expenditure plan, which target safety improvements rather than reliability improvements (Figure 4.1 and 4.2 refers). The proposed unplanned reliability is similar to, but slightly worse than recent years.

**Question 4.5:**

Are you satisfied with the reliability you have experienced in recent years?

**Question 4.6:**

If not, what improvements would you like to see and how much would you be willing to pay for it?

**Question 4.7:**

Bad weather can cause unexpected outages as well as vulnerabilities on Aurora’s network. What would you like to see Aurora do differently to manage unexpected power outages?

**Question 4.8:**

Aurora is proposing investment to enhance real-time updates for unplanned power outages with cause and restoration times. Please explain how communications about unexpected power outages can be valuable to you and what good communications look like.

### **Aurora expects more planned power outages than in recent years**

- 4.16 Planned power outages allow Aurora to undertake network replacement, maintenance work, and tree trimming. Aurora is forecasting a similar level of planned power outages during the CPP as that experienced since 2019, but significantly higher than earlier years. Its expectations about planned power outages represent a substantial increase on the targets it currently faces under the default price-quality path.

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<sup>21</sup> Farrier Swier “Verification Report – Aurora Energy CPP Application” (8 June 2020), page 40.

- 4.17 Aurora forecasts about 154 minutes of planned power outages per customer in 2021 and steadily reducing to about 118 minutes per customer by 2024 and about 75 minutes per customer by 2026. Prior to Aurora’s significant investment on its pole replacement programme, where planned power outages peaked at 290 minutes in 2018, it averaged only 17 minutes per customer. This illustrates the size of the step change in work Aurora is carrying out on its network.
- 4.18 Unlike unplanned power outages, Aurora proposes to work within the current planned power outage duration and frequency standards it is subject to under the DPP, as shown in Table 4.2. However, it has proposed adjustments to the planned power outage incentive scheme parameters, as discussed below.

**Table 4.2 Proposed planned duration and frequency of power outages (SAIDI and SAIFI)<sup>22</sup>**

Proposed planned quality standards	5-year (DPP3) RY21-RY25	3-year (Aurora’s proposed CPP) RY22-RY24	Annualised
Planned SAIDI limit (minutes)	979.80	587.88	195.96
Planned SAIFI limit (interruptions)	5.5385	3.3231	1.108

- 4.19 Aurora states that customers generally accept the need for planned work to maintain and replace its network equipment, as long as notification and communications are well-managed.<sup>23</sup>
- 4.20 To help us set Aurora’s planned standards and targets, we intend to focus on understanding the key drivers of its planned power outage targets, including the extent to which the standards and targets may be driven by other changes in operational policies that do not relate specifically to planned work.

<sup>22</sup> Aurora Energy “Customised Price-Path Application” (12 June 2020), at table 49. Annualised value does not change with the length of the CPP.

<sup>23</sup> Aurora Energy “Asset Management Plan” (April 2020 – March 2030), at page xiv.

## We seek your views on this issue

### Question 4.9:

Reflecting on the unplanned power outages and safety concerns that Aurora's network has experienced in recent years, are you comfortable with the frequency and duration of planned power outages over the CPP period?

### Question 4.10:

Do you have any preferences that Aurora should consider when scheduling or notifying you of a planned power outage?

### Question 4.11:

How do you prefer to receive information about planned power outages (eg, social media, texts, mail drops) and how much advance notice do you expect to receive?

## Aurora proposes to retain the revenue linked incentive scheme

- 4.21 Currently, under DPP3 Aurora operates under a quality incentive scheme which allows it to recover additional revenue from consumers if it outperforms a specified duration target of power outages and recover less revenue from consumers if it fails to meet the target. These duration targets are derived from Aurora's historical power outage levels and represents Aurora's revenue neutral point.<sup>24</sup>
- 4.22 The quality incentive scheme applies to both unplanned and planned power outages, although with a lower incentive rate for planned power outages. Aurora proposes retaining the quality incentive scheme, but updating the values, including increasing the 'revenue neutral' planned and unplanned power outage duration, influenced by its relatively high levels of recent planned and unplanned power outages compared to its historical performance.
- 4.23 We are considering the extent to which we retain the revenue linked incentive scheme, particularly for planned power outages. On the one hand, it may provide Aurora with an incentive to efficiently undertake the planned increase in replacement and maintenance work it has proposed. Conversely, it may provide Aurora with a financial benefit for delaying or otherwise reducing its CPP work programme. Given the significant uplift in Aurora's proposed planned works relative to historical levels, we need to have confidence that we set an appropriate duration of planned and unplanned power outages to ensure Aurora is no better or worse off financially. This may be challenging to set given Aurora is not yet operating in a 'steady state'.

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<sup>24</sup> For more information on the quality incentive scheme see: Commerce Commission "Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision – Reasons paper" (27 November 2019), Chapter 7 and Attachment M.

### Other incentives that Aurora faces

- 4.24 We note Aurora has a customer charter which specifies it endeavours to limit the number of power outages experienced by a customer in a year. It offers compensation of at least \$50 if unplanned power outages exceed four to six hours depending on location.<sup>25</sup>
- 4.25 Aurora’s customer charter also commits to providing customers with a \$20 credit if it does not provide customers (via electricity retailers) with at least ten working days’ notice of a planned power outage.<sup>26</sup> By adequately notifying consumers in advance of a power outage, Aurora is subject to lower potential revenue losses and revenue gains via the quality incentive scheme. Aurora intends to significantly increase the number of planned power outages it notifies electricity retailers about and has factored this into its forecasts.<sup>27</sup>

### We seek your views on this issue

#### Question 4.12:

Do you think we should retain the quality incentive scheme for Aurora in its current form? Please explain why/why not.

#### Question 4.13:

Do you consider there may be other financial incentives that may be more suitable given Aurora’s proposal? For example, a penalty only scheme is possible. Its design would need to provide Aurora with an ex-ante expectation of receiving a normal return.

#### Question 4.14:

Under its customer charter, Aurora offers consumers \$50 credit when power is not restored within four to six hours. Do you think this policy provides affected consumers with reasonable compensation?

#### Question 4.15:

Are there any changes you would like to see Aurora make to its customer charter?

#### Question 4.16:

How should compensation be funded when certain standards are not met. Would you prefer lower prices across all consumers in future as is done through the revenue linked incentive scheme or by providing direct credits to affected consumers and funding those credits through higher prices across all consumers in future?

<sup>25</sup> Aurora offers \$50 credit to customers on residential pricing and one month’s free line charges are offered to customers on general pricing. Aurora Energy “Customer Charter” (1 July 2017), at page 5 and 8-9.

<sup>26</sup> Aurora Energy “Customer Charter” (1 July 2017), at page 8.

<sup>27</sup> The Verifier notes that Aurora’s planned SAIDI forecasts include an expectation of providing 10 days’ notice of a planned outage 20 percent of the time in 2021 and improving this to 80 percent by 2026. Farrier Swier “Verification Report – Aurora Energy CPP Application” (8 June 2020), page 35.

## Chapter 5 Effectiveness of consumer consultation

### Issue description

- 5.1 Aurora consulted with its consumers and stakeholders using a variety of methods in preparing its application. The Verifier found that this was in line with precedents set by other electricity lines companies who have made investment applications in recent years.
- 5.2 The Verifier's view is that Aurora met the requirements for consumer consultation and listened to consumer feedback in developing its final proposal. This is evidenced by the proposal's scope being narrowed to focus on safety and asset health, deferring growth-related projects due to COVID-19 and ultimately reducing its application by \$20 million which has reduced the proposed consumer price increases.

### Why this is important and what is the impact on you

- 5.3 We need to satisfy ourselves that Aurora took your views into account in developing its proposal.
- 5.4 It is also important that we understand how Aurora's proposal will impact you and that our decisions reflect your preferences.

### We seek your views on this issue

**Question 5.1:**

Is there anything Aurora did not properly consider in its investment application or consult with you on that you want to bring to the Commission's attention?

**Question 5.2:**

Aurora's substantive consultation was undertaken prior to the COVID-19 pandemic. Has your feedback on Aurora's proposal changed as a result of COVID-19?

**Question 5.3:**

How will Aurora's proposal affect you and what would you like Aurora to do to help reduce the impact (eg, they are advocating for a regional energy efficiency fund for vulnerable households in collaboration with local Councils).

- 5.5 The Commission has received feedback from some consumers about their lack of awareness of Aurora's proposal and consultation process. In particular, we want to hear from consumers about how Aurora could improve its communications and consultation processes for its signalled second CPP application.

## Chapter 6 Operating expenditure

### Issue description

- 6.1 The operating expenditure (opex) forecasts that we use to set Aurora's CPP will have a direct impact on allowable revenues, as Aurora will be allowed to recover the full forecast opex from consumers during the CPP period.

### Why this is important what is the impact on you

- 6.2 Examining Aurora's operating expenditure will be a priority for us as all of the forecast operating expenditure we allow is recoverable in the regulatory period. Therefore, we need to test that the expenditure Aurora is proposing is well justified.

### The Verifier has identified a number of areas we should focus our attention on in the opex programme

- 6.3 Aurora is undertaking a substantial opex programme to address a maintenance backlog and move from a reactive to proactive opex approach. It is also investing significantly in capability and capacity to support its increased expenditure activities and asset management capability as a standalone entity from Delta (a utility services contractor that provided services to Aurora up until mid-2017).
- 6.4 The Verifier identified that while Aurora's overall approach to forecasting opex was reasonable, there are some aspects of the programme forecasts that may not be efficient. Some of the recommendations to us are:
- 6.4.1 To consider whether RY19 expenditure is efficient. The RY19 maintenance opex base year may not be efficient and appears high when total maintenance opex is compared to similar expenditure incurred by other New Zealand electricity lines companies. The Verifier suggested the Commission review Aurora's actual RY20 maintenance expenditure when this becomes available to determine what efficiencies may have been achieved by initiatives introduced since RY19. This could inform how we adjust the base year value.
- 6.4.2 To consider whether RY18 expenditure is efficient. The vegetation management unit rate does not appear efficient when benchmarked against comparable lines companies. The Verifier recommended we consider the scope for efficiency improvements with Aurora, including any market testing or benchmarking that may be available to assess the efficiency or otherwise of historical costs.

- 6.4.3 To consider updating the base year to RY20 values and review whether the use of base, step and trend to forecast people and System Operations and Network Support (SONS) costs is appropriate given that Aurora is effectively setting up a new team, where historical costs are less relevant.
- 6.4.4 To consider whether the proposed level of staffing is efficient, and how reviews Aurora makes decisions about appropriate staffing levels.
- 6.4.5 To review the Verifier's conclusion that the application of a general network growth factor to opex categories such as corrective and reactive maintenance, SONS, and people costs is inappropriate because the key drivers in these categories are due to specific maintenance concerns. The Verifier recommended that we consider whether applying a network growth factor to these categories is appropriate.
- 6.4.6 To consider whether Aurora's proposed timing to undertake maintenance work (and any associated replacements) on its electricity poles is more aggressive than necessary and should be reviewed by us.
- 6.4.7 To consider whether insufficient information was provided by Aurora to justify the step changes related to increased opex for defects, insurance premia and training costs.
- 6.4.8 Consider whether further productivity improvements should be factored into the forecast trend to capture expected benefits of ICT investments and changes to contracting arrangements. Only modest allowances for opex efficiency reductions given the proposed expenditure initiatives were noted. The Verifier recommended that we work with Aurora to better understand what efficiency improvements could be expected over the CPP period and review period from the proposed expenditure.

### **Our current thinking**

- 6.5 We consider that the Verifier has thoroughly reviewed Aurora's opex programme and identified some key areas for us to investigate further. We are also interested in efficiencies in the SONS and Business Support opex categories as Aurora continues to embed itself as a standalone business. We will be exploring the historical costs in these opex categories and the justifications for the proposed increases.

- 6.6 We also intend to investigate how Aurora is forecasting its vegetation management opex. Preliminary analysis suggests that when compared to its industry peers, Aurora is spending significantly more on a dollar per kilometre basis and we want to understand why. These two key areas, as well as determining an efficient base year, will be our focus areas as we review Aurora's opex forecast. We seek your views on this issue.

### **We seek your views on this issue**

**Question 6.1:**

We welcome your views on the overall appropriateness of Aurora's opex proposal and whether you consider it will deliver better outcomes for consumers. We are also interested in whether you agree with the focus areas we have identified for our review or whether there are other issues you think deserve our scrutiny?

## Chapter 7 Capital expenditure

### Issue description

- 7.1 We are interested in a number of capital expenditure (capex) programme issues such as the drivers for the network growth project and consumer connection capex, how Aurora carries out its modelling to justify some renewals expenditure, and inputs into some of its business case justifications.
- 7.2 Additionally, while we are not the safety regulator, we must determine whether the safety expenditure required to meet statutory obligations and minimum design standards is cost effective.
- 7.3 Finally, the Verifier reviewed 66% of Aurora's capex programme which means we need to decide what level of scrutiny should apply to the unreviewed amount.

### Why this is important and what is the impact on you

- 7.4 The money Aurora spends on its network will have a direct impact on your electricity bill and we need to test that the expenditure it is proposing will be invested when and where it is needed.
- 7.5 In contrast to operating expenditure, capital expenditure is usually spent on equipment with long asset lives (50+ years is common), with the full cost recovery of expenditure spread over the lifetime of the asset.
- 7.6 Aurora has stated that a key driver for much of the capex programme is to address safety issues and renewals of ageing assets. There are also a range of projects to meet growth demand.
- 7.7 We are also interested in the prudence and efficiency of safety-related expenditure that goes beyond what is required to meet statutory obligations and minimum design standards. This is what we call discretionary safety expenditure.

### The Verifier has identified a number of areas we should focus our attention on

- 7.8 The Verifier made a number of observations regarding Aurora's capex programme, including that we should:
  - 7.8.1 For pole renewals, confirm with Aurora its plans for an independent engineering review over the CPP period and revisit the viability of the programme.
  - 7.8.2 Investigate how Aurora is modelling zone substation power transformer replacements with a focus on the asset health and criticality, and the sources of input data.

- 7.8.3 Investigate how Aurora is assessing the risk profile of the zone substation outdoor switchgear fleet.
  - 7.8.4 Reconsider the triggers for consumer connection capex noting that this is demand driven and COVID-19 effects need to be included, as well as looking into the consumer connection capex contribution level of 60% and whether this should be revised.
  - 7.8.5 For a number of growth and security projects test the demand, value of lost load, and discount rate used in the cost benefit analysis. We may wish to consider these as contingent projects or consider another mechanism to account for project uncertainty.
  - 7.8.6 Consider whether the identified benefits from the ICT projects are realistic and how the business cases have informed the decisions to invest.
- 7.9 We intend to investigate these observations further. We also seek your views about any areas of the capex proposal that was reviewed by the Verifier that you think we should investigate further.

### **How we will address the Verifier’s limited capex portfolio review of Aurora’s proposal**

- 7.10 In addition to the issues raised by the Verifier and those that we intend to investigate further, we also need to decide how we should approach the 34% of capex that the Verifier did not review.
- 7.11 The Verifier is limited to reviewing up to 20 projects and programmes by our IM’s and chose to review 18 of these. Aurora also has many more capex programmes to choose from than we have seen in previous CPP applications, so the capex is spread more widely over a greater number of programmes.<sup>28</sup>
- 7.12 Given that Aurora’s asset management is at an early stage of maturity, we will be seeking external expert advice about projects and programmes not reviewed by the Verifier to gain comfort that the proposed expenditure is prudent and efficient. This review will progress in parallel with our own review of the Verifier’s report and Aurora’s CPP proposal.

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<sup>28</sup> Electricity Distribution Services Input Methodologies Determination 2012 (Amended on 31 January 2019 Schedule G4(1)).

- 7.13 We will also be testing whether Aurora is addressing and prioritising the key safety risks identified in the WSP report, such as:<sup>29</sup>
- 7.13.1 how the protection system issues are being addressed and prioritised, and in particular how Aurora is providing adequate protection coverage as the old electromechanical relays are replaced;
  - 7.13.2 when redundant battery systems will be installed at zone substation sites;
  - 7.13.3 progress on protection settings, calculations, and protection relay input variables;
  - 7.13.4 the noted protection performance issues at the Costorphine, Green Island, Queenstown, Smith St, South City, St Kilda, Willowbank and Neville St zone substations; and the high-risk electromechanical relays at Halfway Bush GXP, North City and Ward St zone substation;
  - 7.13.5 the condition of instrument transformers which feed network information to the protection relays;
  - 7.13.6 how the circuit breaker maintenance issues at the Alexandra, Arrowtown and Green Island zone substations will be addressed, including plans to address the Outram zone substation circuit breaker risk.
- 7.14 We note that since the WSP report was published Aurora has been making steady progress to address the safety and reliability risks highlighted by WSP and is informing its investment strategy with its own asset risk framework. We also note that on 31 July 2020 Aurora will provide us with a progress report on how it is addressing the priority risks identified by WSP.

### **Our current thinking on the limited review issue and our questions for you**

- 7.15 We now have two detailed and independent reports from WSP and the Verifier. These reports have given us a good insight into the issues on Aurora's network. Additionally, Aurora has been supplying us with regular progress updates since it started implementing the WSP recommendations.
- 7.16 We would like to hear from you about Aurora's expenditure plans and whether you consider it is planning to spend money in the right areas and for the right reasons.

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<sup>29</sup> WSP Independent Review of Electricity Networks – Aurora Network Final Report Table F.1 page F-1 available at <http://comcom.govt.nz/regulated-industries/electricity-lines/projects/aurora-energy-independent-review-of-the-state-of-the-network/independent-review-received>.

**We seek your views on this issue****Question 7.1:**

Do you agree that Aurora's expenditure appears to be targeting the right assets for renewal at the right time?

**Question 7.2:**

If not, what do you think Aurora should focus its network expenditure on over the CPP period?

**Question 7.3:**

Do you think there are any other capex issues raised in the Verifier's report that we should investigate further?

## Chapter 8 Urgent project allowance

### Issue description

8.1 Our rules allow CPP applicants to apply to recover costs associated with urgent and prudent works that are undertaken in the lead-up to their application being determined (this is called an urgent project allowance).<sup>30</sup> Aurora has applied to recover costs under these rules and would also like to extend the timeframe that our rules cover (from 12 June 2020 to 1 April 2021). We need to assess whether Aurora's costs meet the prudent and urgent criteria and make a decision on whether the timeframe should be extended to cover additional costs.

### Why this is important and what is the impact on you

8.2 The costs that we allow Aurora to recover under a CPP will impact your electricity bill. However, we also need to ensure that Aurora has incentives to invest in its network.

8.3 We are currently working with Aurora to establish the value of the additional costs it is seeking to recover under the urgent project allowance.

### What Aurora is proposing

8.4 Aurora's request to extend the timeframe during which urgent and prudent costs are able to be recovered has been requested as a variation to our input methodologies.<sup>31</sup> With the agreement of Aurora, we may vary the IMs that would otherwise apply to Aurora).<sup>32</sup>

8.5 In Aurora's IM variation request it explained that its proposed variation to clause 3.1.3(11) would recognise that there is an unavoidable lead-in time for a CPP proposal (including a stand-down period in the year immediately preceding a DPP reset), but that Aurora has been prudently incurring costs related to its CPP application during this period.<sup>33</sup>

8.6 Aurora considers that the proposal is consistent with the Part 4 purpose statement and to the extent possible, the process requirements of the CPP should not disincentivise suppliers from commencing necessary CPP-related investment if it is in the interest of consumers.

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<sup>30</sup> This proposal is made under clause 3.1.3(11) of the EDB IM determination.

<sup>31</sup> Input Methodologies are the rules and processes that underpin our regulations.

<sup>32</sup> Commerce Act 1986, s 53V(2)(c). This proposed IM variation is to clause 3.1.3(11) of the EDB IM determination.

<sup>33</sup> Aurora Energy "[Aurora Energy CPP Proposal – Application for IM Variations](#)" (1 June 2020).

- 8.7 Aurora further states that, given the extensive unrecovered costs incurred by Aurora since early 2017, including substantial negative regulatory incentive adjustments, an inability to recover any part of this expenditure would diminish incentives to invest in network assets, or encourage deferral of expenditure.

### **Our current thinking**

- 8.8 We are currently considering whether the additional net costs:
- 8.8.1 exceed those already provided for in the DPP3 determination;
  - 8.8.2 will not otherwise be recovered by Aurora; and
  - 8.8.3 will be *prudently* incurred by Aurora in responding to an *urgent* project or programme.<sup>34</sup>
- 8.9 During the 2015/2016 IM review we introduced the ability for electricity lines companies to recover the prudently incurred costs, in response to an urgent project, between when a CPP is applied for and when it comes into effect. We considered that the provision creates incentives to invest where urgent work is needed while the Commission is assessing a CPP proposal.<sup>35</sup>
- 8.10 As part of this process, Powerco suggested that we broaden this provision to allow CPP applicants to recover prudently incurred costs up to 24 months prior to submitting a CPP application. We did not consider it appropriate to extend the recovery of costs to costs incurred prior to the CPP application, as we considered that it would remove the incentive for applicants to submit a CPP proposal in a timely manner. We also considered that it is desirable to minimise the level of controlled expenditure that is approved after the costs have been incurred.<sup>36</sup>

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<sup>34</sup> Clause 3.1.3(11)(c) states that the additional net costs that will be prudently incurred by the EDB before commencement of the resulting CPP regulatory period in responding to an urgent *project*. Aurora's proposed drafting for a variation to clause 3.1.3(11)(c) would extend this to additional net costs that will be prudently incurred by the EDB before commencement of the resulting CPP regulatory period in responding to an urgent *project or programme*.

<sup>35</sup> Commerce Commission "[Input methodologies review decisions – Topic paper 2 – CPP requirements](#)" (20 December 2016), page 5.

<sup>36</sup> Commerce Commission "[Input methodologies review decisions – Topic paper 2 – CPP requirements](#)" (20 December 2016), page 35.

**We seek your views on this issue****Question 8.1:**

Do you consider Aurora has sufficiently established a case to recover additional costs incurred prior to submitting its CPP proposal to us for our evaluation? Please state your reasons.

**Question 8.2:**

Do you think we should permit the IM variation to allow Aurora to recover these additional costs in the CPP?

## **Chapter 9 Risks associated with Aurora delivering on its investment plan**

### **Issue description**

- 9.1 The work programme proposed by Aurora is significant and larger in scale than what it has delivered previously. Aurora's proposal explains how it will deliver what it has proposed. We will assess this based on the material it has supplied.

### **Why this is important and what is the impact on you**

- 9.2 When work programmes are not delivered on time, planned power outages can go on for much longer than anticipated and unplanned power outages may be more frequent or longer. Consumers would also end up paying too much in the longer term as a result of ongoing maintenance or the assets not lasting as long as they should.
- 9.3 If work is delayed beyond the regulatory period, consumers may end up paying for work that is not done. It is not unusual for the work programme to change during a regulatory period, with forecast work deferred and substituted for new work programmes.
- 9.4 When work is delivered to an inferior standard or quality, there may be issues with testing, commissioning and return to service of the replaced assets, which could result in longer power outages for consumers. The work may also need to be revisited which may result in more power outages.

### **What Aurora is proposing**

- 9.5 Significant work has been done by Aurora on its contracting model since its separation from Delta in 2017.<sup>37</sup> It has set up agreements with two other providers, Unison and Connetics, and has additional approved contractors to draw labour resources from for tendered and other work. These agreements have elements to improve service delivery and efficiency over time.

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<sup>37</sup> Prior to July 2017, Delta had provided services such as asset management, engineering, network operation and corporate services functions to Aurora. Delta and Aurora shared a common board. On 1 July 2017, Aurora separated from Delta which saw 100 staff transferred from Delta to Aurora, Aurora becoming fully responsible for its governance and operating functions (including asset management and network operations) with the appointment of a new Board and CEO. Delta continues to provide some of Aurora's core maintenance and faults response services.

- 9.6 Internally, Aurora set up a Planning and Work Delivery design team for a 12-month period to ensure it had the right processes in place to support project delivery. In addition to this, it has also invested in Sentient (project and programme management software tool) to enable tracking of projects and programmes.<sup>38</sup>
- 9.7 Aurora has carried out its own risk assessment on its ability to deliver its work programme and has summarised its key risk areas and mitigation actions.<sup>39</sup>

### **The Verifier's summary**

- 9.8 The Verifier has assessed Aurora's ability to deliver its work programme and has stated that its approach appears well considered. The Verifier noted that discussions with service providers are well advanced and concluded that although there are risks associated with its deliverability plan, it expected that Aurora can and will manage them.<sup>40</sup>
- 9.9 Some of the key delivery risks the Verifier notes, could result from:<sup>41</sup>
- 9.9.1 management bandwidth and the timeframe to mobilise projects and programmes given the significant step up in proposed activity in some areas;
  - 9.9.2 shared resources being used to support the delivery of multiple projects and programmes in both capital and operating expenditure areas;
  - 9.9.3 some Aurora internal vacancies which have yet to be filled and are a work in progress, as well as dependent on our final decision; and
  - 9.9.4 impact of COVID-19 on recruitment, resourcing and activity.

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<sup>38</sup> Aurora Energy "Customised Price-Path Application" (12 June 2020), para 956 and 957 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf).

<sup>39</sup> Aurora Energy "Customised Price-Path Application" (12 June 2020), Appendix M Sections M.3 and M.4 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf).

<sup>40</sup> Verifier report Section 1.5.2 page 16 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf).

<sup>41</sup> Verifier report Section 1.5.6 page 19.

## Our current thinking

- 9.10 We have not formed a view at this stage whether the deliverability risks are of a magnitude for us to consider reducing the proposed expenditure by excluding certain projects and programmes. We will be testing the key deliverability risk areas as suggested by the Verifier to form our own conclusions and assure ourselves that the work programme is able to be delivered.
- 9.11 Even though consumers ultimately pay for Aurora's investments through their power bills, there is a time lag between Aurora having the funds in place, spending it on the investment that is required and recovering it from consumers. Because of this, our role in assessing deliverability also involves financeability. This involves checking that Aurora has clear access to funding so it can deliver on its proposed investments. This is to avoid a situation where consumers are charged in future for spending that Aurora is unable to finance.

## We seek your views on this issue

### Question 9.1:

In Appendix W of its CPP proposal, Aurora included a letter of comfort from its owners confirming funding availability for the proposed investment. Does this letter provide you with assurance or satisfaction on Aurora's access to funding to deliver its investment programme?

### Question 9.2:

Do you consider that Aurora will be able to deliver on its proposed work programme? Do you have any specific concerns relating to non-delivery, late delivery or inferior delivery? What other factors do you think may impact on the delivery of its proposal?

### Question 9.3:

How would you like to see Aurora held to account for delivering on its work programme? For example, should Aurora have to report each year on progress against delivering its plan. We are also keen to hear what level of detail you would like to see in these reports and how often you would like to receive progress updates.

## Chapter 10 Impact of the COVID-19 pandemic

### Issue description

- 10.1 The implications of COVID-19 on economic and financial systems are still emerging. However, it is clear that it is likely to have ongoing implications for Aurora's proposal. Projects may not be required due to reduced demand or growth. The Verifier noted that Aurora may incur increased costs as a result of a sustained economic downturn. Delivery of the work programme may also be impacted if there are further travel restrictions, sickness, a reduced labour resource pool and delayed lead times for equipment. As a result, we are considering how to account or allow for the resulting uncertainty.

### Why this is important and what is the impact on you

- 10.2 If we do not have a mechanism to allow for the demand and growth uncertainty as a result of COVID-19, we may end up over or under approving expenditure:
- 10.2.1 Approving too much expenditure on growth projects that may not take place, due to reduced demand or growth, would mean Aurora will have access to additional funding that it does not need. This means there is less incentive on it to efficiently deliver its other non-growth-related projects during the CPP period costing consumers more in the longer term.
  - 10.2.2 Approving too little expenditure would mean that in the event demand and growth recovers earlier than expected, Aurora would not have access to funding that is required to deliver growth projects. This then impacts access to electricity which may affect residential, commercial and industrial activity in growing regions.

### What Aurora is proposing

- 10.3 For Aurora, in the short term, the pandemic and economic fallout is likely to impact electricity demand and growth, especially in the Central Otago and Queenstown Lakes areas.
- 10.4 Given the likely reduction in demand and growth, Aurora has revised downwards its forecast expenditure in its proposal. It has deferred proposed major growth projects, distribution and LV reinforcement projects and reduced connection expenditure. This had the effect of reducing forecast capital expenditure by \$2.6 million.

- 10.5 Aurora has suggested that the uncertainty in this scenario could be tackled via a streamlined contingent projects arrangement which would allow for projects to be considered for activation when certain triggers are reached.<sup>42</sup>

### The Verifier's summary

- 10.6 The Verifier concluded from its assessment that 2% of Aurora's total proposed expenditure can be categorised as contingent, due to COVID-19. In our assessment of Aurora's proposal, we will evaluate whether there are any further projects that might fall into this category.
- 10.7 The Verifier has recommended that we consider a mechanism to account for pandemic-related uncertainty.<sup>43</sup>

### Our current thinking

- 10.8 Our preferred approach is to introduce a demand driven uncertainty mechanism to deal with unforeseen projects and foreseeable projects that are uncertain in timing and cost. This would be similar to the one we recently introduced for the default price-quality path that applies to most electricity lines companies and which Aurora is currently on.<sup>44</sup> This would give Aurora the opportunity to revise its forecasts for projects that fall into these categories when demand trends settle and demand driven project timing becomes more certain.
- 10.9 Introducing this mechanism would reduce the risk to consumers of us under or over approving expenditure.

### We seek your views on this issue

#### Question 10.1:

Do you agree with our preferred approach to dealing with demand driven project uncertainty associated with COVID-19?

<sup>42</sup> Aurora Energy "Customised Price-Path Application" (12 June 2020), Executive Summary para 72 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0027/218592/Aurora-Energys-CPP-application-12-June-2020.pdf).

<sup>43</sup> Verifier report Section 7.1 page 133 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf).

<sup>44</sup> "Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision Reasons Paper" para 4.36 page 76 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0020/191810/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2020-Final-decision-Reasons-paper-27-November-2019.PDF](https://comcom.govt.nz/_data/assets/pdf_file/0020/191810/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2020-Final-decision-Reasons-paper-27-November-2019.PDF).

## Chapter 11 Asset management maturity

### Issue description

- 11.1 Aurora has indicated that aspects of its application are to improve its asset management systems and processes. We believe that these improvements will result in asset management practices that are consistent with good industry standards and ensure that expenditure efficiencies are realised in the future.

### Why this is important what is the impact on you?

- 11.2 The asset management issues at Aurora have been well-publicised. While the primary purpose of this CPP is to seek approval for expenditure to remedy historic under-investment, another aspect of the CPP is to improve asset management systems and asset-related decision-making.
- 11.3 Better asset management decision-making processes will help ensure Aurora invests in its assets in a timely manner and supports consistent and repeatable asset investment decision-making. This will ensure that consumers are not paying for asset replacements before they are needed, and that network safety is maintained.

### Our current thinking on the issue

- 11.4 There are many aspects to good asset management systems. Key inputs include asset condition informing asset health models, and asset criticality informing prioritisation of asset replacement or renewals interventions. We have observed a variety of maturities across Aurora's asset fleet in these key areas. Aurora has identified this as an area of development for its business.
- 11.5 Fundamentally, mature asset management systems rely on data and consistent process driven data systems. We understand from Aurora and the WSP report that the data Aurora is relying on to forecast expenditure for work programmes on its network assets is of variable quality.<sup>45</sup> This will affect the level of confidence we can have in the expenditure that it will be proposing in its CPP proposal and how we will scrutinise and make decisions on how much it is permitted to spend.

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<sup>45</sup> Independent Review of Electricity Networks – Aurora Network Final Report Table F.1 page F-1 available at <http://comcom.govt.nz/regulated-industries/electricity-lines/projects/aurora-energy-independent-review-of-the-state-of-the-network/independent-review-received>.

- 11.6 The Verifier also concluded that while Aurora’s asset management processes provided “effective direction to manage this fleet of Aurora’s network assets” the efficient application of the plan is “limited by asset data availability and quality that would otherwise enable it to target investment and risk mitigation measures with much greater precision, and in the process further optimise asset strategies and expenditure forecasts.”<sup>46</sup>
- 11.7 We believe that asset data is a priority area for Aurora to mature over the CPP period and intend to impose reporting requirements on it to demonstrate how it is improving how it collects, uses and audits the data that are inputs into its asset management system.
- 11.8 The Verifier recommended that Aurora develop data standards documentation “to provide guidance on the management of data and the data requirements for an asset register as part of the implementation of the proposed Enterprise Asset Management system. This will be an improvement that will assist in optimising strategies during the CPP and review periods”.<sup>47</sup> We agree with these recommendations.
- 11.9 Improving data processes is the first step on the asset management journey and it is fundamental to setting the scene for higher levels of asset management maturity in the future.

## We seek your views on this issue

### Question 11.1:

Do you agree that, given Aurora’s present asset management maturity, improving its data processes over the CPP period should be a priority?

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<sup>46</sup> Verifier’s report Section 4.2.3 page 61 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf).

<sup>47</sup> Verifier’s report Section 4.2.3 page 61 available at [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0028/218593/Farrier-Swier-Consulting-Pty-Ltd-and-GHD-Pty-Ltd-Aurora-Energys-CPP-application-Verification-report-8-June-2020.pdf).