

15 August 2023

Electricity Authority
Level 7 AON Centre
1 Willis Street
Wellington, 6011

By email: distribution.pricing@ea.govt.nz

Horizon Energy Distribution Limited (Horizon Networks) submission on Targeted Reform of Distribution Pricing issues paper

1. Thank you for providing us with the opportunity to provide feedback on the Targeted Reform of Distribution Pricing issues paper (issues paper).
2. Horizon Networks is a small trust-owned Electricity Distribution Business (EDB) serving over 25,000 consumers in the Eastern Bay of Plenty region. As a trust-owned EDB, we have a strong consumer focus and seek to benefit both our Shareholder Trust Horizon and the communities we serve.
3. We appreciate the opportunity to provide feedback on the issues paper. Answers to the questions raised by the Electricity Authority accompany this cover letter, however, we would like to emphasise the following:
 - For pricing reform to be effective, price signals need to reach end consumers.
 - The issues identified in the paper are based on incomplete information.
 - Practical engagement and industry collaboration should be considered ahead of prescriptive regulation.

Context and terms used within this submission

Why distribution pricing needs reform

4. Horizon Networks understands that the context of distribution pricing reform is to support an affordable transition to a low-emissions economy – by providing appropriate signals to consumers as they consider their own power use and respond. Cost-reflective prices can encourage coordinated network usage and for the right investment to occur in the right place at the right time could save consumers billions of dollars through economising on investment in the coming years.¹
5. This consumer benefit focus is the lens Horizon Networks has applied when responding to the points raised in the issues paper.

Use of the term consumer and customer

6. Within our submission we have used the terms “consumer” and “customer”. For clarity, these two terms are distinct and should be read as follows:
 - **Consumer** means the end user of the electricity. Pricing reform is effective when consumers can choose to change their behaviour in response to price signals.
 - **Customer** means the entity that contracts with the EDB for network services. In most cases, this is the retailer who has contracted with the consumer. Retailers combine distribution and energy charges into a product for consumers.

Distinction between “active” and “passive” tariffs

7. Within pricing reform there needs to be a clear distinction between “passive” and “actively controlled” tariffs, both of which can be used to signal the cost of supply and avoidable costs to consumers.
 - **Passive tariffs (such as TOU)** provide a passive price signal that allows consumers to make informed decisions regarding the costs of consuming during certain times. A TOU tariff with different kWh prices for peak and off-peak is an example of a passive tariff.
 - **Actively controlled tariffs (such as hot water)** reward consumers for making flexible load available so EDBs can actively manage peak periods and network constraints. A hot water tariff that compensates consumers for access to their hot water load (regardless of if the load is controlled) is an active tariff.

¹ [Targeted reform of distribution pricing issues paper](#) Executive summary pg 2.

Ideally, this compensation would be part of the daily charge but LFC regulations typically result in a reduced kWh price for the controlled load channel.

8. When considering avoidable costs, the Electricity Authority and EDBs should be careful not to conflate the price signals that set a value for peak load and the price signal for the value of access to controlling load.

Price signals vs. price pass-through

9. Within our submission we have used the term “price signal”. This refers to the incentives and messages from the distribution price that will encourage consumer behaviour to change. Price signals should not be confused with retailer pass-through of distribution charges.

For pricing reform to be effective, the right price signals need to reach consumers

10. Consumers can only make efficient purchasing decisions when they receive accurate price signals from their retailer.²
11. An accurate price signal reflects the cost to supply, and how that cost to supply may vary such as by time and by location.
12. Distribution price signals are an important input into retail pricing. Distribution charges reflect the cost to supply and can signal if there are any costs that can be avoided if the consumer shifts load or reduces consumption.
13. It is critical for pricing reform to be neutral to the types of input costs faced and to focus on the behaviour the signals need to incentivise.
14. In the context of distribution pricing the Electricity Authority needs to recognise that there is no single pricing solution and each EDBs pricing needs will be unique. Different groups of consumers drive different costs, and this is reflected in the prices set. For Horizon Networks this is a combination of fixed, capacity, daily and consumption-based pricing, with an additional TOU price signal that targets the consumer groups where there are avoidable costs.
15. Horizon Networks considers that pricing reform should not be focussed solely on distribution pricing reform or on a single pricing option such as TOU pricing. Industry pricing reform needs to be focussed on the consumer, and how EDBs, retailers and regulators can work together to provide a product and price signals that benefit consumers.
16. A starting point for this would be to work with EDBs, retailers and other regulators to develop a standardised approach to pricing inputs and pass-through of the various price signals from the market. This can ensure that consumers see the true value of their consumption decisions which will support an affordable transition to a low-emissions economy.
17. **Horizon Networks Recommends:** The Electricity Authority focus on coordinated, consumer-focused industry-wide pricing reform that clearly links consumer response to the price signals and inputs.

Issues identified in the paper are based on incomplete information

18. The Electricity Authority has raised concerns that progress towards cost-reflective pricing is not occurring as consistently or rapidly as possible.
19. The Electricity Authority states that they have observed limited progress in ensuring peak rates are set at the right level of signal network costs³. The Electricity Authority also suggests that EDBs have not worked through the process of aligning peak rates with a robustly developed view of the cost of network capacity for each consumer group.⁴
20. These statements are concerning because it appears the Electricity Authority is considering regulatory intervention before it has engaged with Horizon Networks or sought to understand how avoidable costs are factored into TOU pricing.
21. Horizon Networks has a robust model that identifies the value of deferring growth CAPEX (from the AMP) and allocates this avoidable cost (the long-run marginal cost for supplying the additional peak load) to the price

² Retail price signals come from many sources, including distribution costs, wholesale electricity costs and the cost of managing price volatility.

³ [Targeted reform of distribution pricing issues paper](#) paragraph 3.5(a)

⁴ [Targeted reform of distribution pricing issues paper](#) paragraph 4.19

differential used for TOU pricing. TOU pricing is not arbitrary and is linked to the benefit consuming off-peak provides.

22. There may be opportunities to improve understanding within the Electricity Authority and EDBs. A collaborative approach to developing clear pricing signals should be considered ahead of regulatory intervention.
23. Horizon Networks recognises that the Electricity Authority is very receptive to engaging with EDBs on request, has engaged with EDBs via the ENA, and participated in recent ENA-led workshops and discussions., However, these were never at the technical level that would allow the Electricity Authority to understand an individual EDBs approach and models used for distribution pricing or draw conclusions about the effectiveness of EDBs avoidable cost calculations and allocators.
24. **Horizon Networks Recommends:** The Electricity Authority work with EDBs to understand their approach to identifying and allocating TOU costs, so there can be informed and constructive discussions on potential areas for improvement.
25. The Electricity Authority also notes that its thinking has evolved in some areas and other issues such as connection costs are relatively new focus areas.
26. Horizon Networks understand that this evolved thinking and new focus areas are contained in the updated information provided by the Electricity Authority in late 2022 as well as this issues paper. As communicated in late 2022, the annual EDB pricing process for the 2023/24 year was well advanced and could not change before we needed to notify of price changes starting in January 2023. This was acknowledged by the Electricity Authority and assurances were provided by Horizon Networks that the evolved thinking and guidance provided by the Electricity Authority in late 2022 would be considered as part of the pricing process for the 2024/25 year.
27. Because evidence is not yet available, regulatory intervention on these issues is premature. There is no evidence that EDBs have not responded, because EDBs have not yet had the opportunity to work through the pricing process and incorporate the feedback into upcoming price changes.
28. Evidence of progress against the late 2022 advice will be available in the 2024/25 pricing methodology, roadmaps, and price changes. This can be provided to the Electricity Authority as part of the improved engagement Horizon Networks considers necessary to ensure issues and solutions regarding industry pricing reform are evidence-based and consumer focussed.
29. **Horizon Networks Recommends:** When the Electricity Authority issues updated feedback and identifies new issues, sufficient time is provided to allow stakeholders (such as EDBs) to act on the feedback and issues. Any concerns regarding the timeliness of actions should be addressed through collaborative engagement with stakeholders so realistic timeframes and expectations can be set.

Practical engagement and industry collaboration should be considered ahead of prescriptive regulation

30. A theme within the issues paper is the preference of the Electricity Authority to develop backstop regulation in parallel with issuing guidance and areas of focus to address the issues identified.
31. Regulation (including backstop regulation) will set the requirements for pricing reform and is likely to lead to poor consumer outcomes if made before the issues and inefficiencies are understood and there are practical steps that can be taken to address the issues and inefficiencies.
32. Horizon Networks cautions against jumping straight to prescriptive regulation of pricing, particularly where problems are based on incomplete information or solutions have been developed without considering the impact on key stakeholders, including EDBs, retailers and consumers.
33. **Horizon Networks Recommends:** The Electricity Authority take a collaborative approach to engagement with stakeholders to ensure that expectations are understood and where action is not being taken, why this is the case and how addressing the issue links back to consumer benefit. Collaborative engagement and a shared understanding will provide a flexible and responsive approach to pricing that keeps the consumer at the heart of the process.

In conclusion, the Electricity Authority needs to work with the industry to deliver industry pricing reform that is consumer focussed

34. Horizon Networks supports the Electricity Authority in reforming pricing in a way that provides a consumer benefit by allowing consumers to respond to the true cost of supply. This will require an 'end to end' approach. Simply targeting distribution pricing without providing an incentive for retailers and therefore consumers to respond will not support the transition to a low-emissions economy.

35. The tone of the issues paper leaves us concerned that the Electricity Authority is drawing conclusions without first asking about the work EDBs are doing to reform pricing, particularly in response to the points raised by the Electricity Authority in late 2022. This risks the development of unnecessary and overly prescriptive regulation.
36. Horizon Networks recognises that the Electricity Authority has recently been active in engaging with the ENA, and some EDBs, and remains optimistic that continued proactive engagement and shared understanding across all stakeholders can lead to prompt, efficient and consumer focussed pricing reforms to encourage a low-emissions economy.

Yours Sincerely

A handwritten signature in blue ink that reads "Jonathon Staite". The signature is written in a cursive, flowing style.

Jonathon Staite
Regulatory Manager

HORIZON ENERGY DISTRIBUTION LIMITED

Format for Submissions

Submitter	Horizon Energy Distribution Limited (Horizon Networks)
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Questions
Q1. Are there other options that you think the Authority should consider?
Comment
<p>The Electricity Authority has proposed three non-exclusive options for intervention. These are:</p> <ol style="list-style-type: none">1. Continuation – expand the practice note and pricing scorecards.2. Control – amend the Code to specify requirements.3. Call-in – amend the Code to review and approve pricing methodologies. <p>An additional approach the Electricity Authority should consider is a “collaboration” approach. This approach would look to engage with EDBs on a more technical level than in the past to better understand how EDBs and retailers are quantifying and signalling avoidable costs in their pricing. This approach can help develop a consistent approach to pricing that is focused on positive consumer outcomes and will help inform if Code changes are necessary.</p>
Q2. Do you have any comments on the options outlined?
Comment
<p>Horizon Networks notes that the pricing scorecard is an effective tool that promotes continual improvement within pricing reform as Electricity Authority expectations evolve.</p> <p>Scorecards support efficient, focused distribution pricing reform. Scorecards benefit EDBs and the industry. They allow EDBs to understand the Electricity Authority’s expectations and highlight other EDBs work as examples of industry best practices. Many of the issues identified in the consultation paper are new or emerging Electricity Authority views which can be effectively implemented through the scorecard process.</p> <p>Horizon Networks cautions against unnecessary regulatory intervention by the Electricity Authority when evidence that the guidance and information issued in late 2022 has been incorporated into pricing will not be available until early 2024.</p> <p>Horizon Networks considers effective action can be taken when there is a shared understanding of the challenges faced by New Zealand, the Electricity Authority, EDBs and retailers in progressing meaningful pricing reform.</p> <p>An additional option that should be considered is meaningful engagement and empathy between EDBs, retailers and the Electricity Authority. This can help EDBs, and retailers better understand the impact of potential inefficiencies on consumers and allow the Electricity Authority to see first-hand how pricing reform is being progressed within the models maintained by EDBs and retailers.</p> <p>This will provide benefits by allowing the Electricity Authority to see the work that is being done, understand the challenges faced and help stakeholders overcome those challenges to benefit consumers.</p> <p>This collaborative approach should be considered ahead of any directive regulatory intervention or Code change.</p>

A directive approach risks poor consumer outcomes by following the wording of the obligation over having the flexibility to consider efficient solutions.

Q3A. Do you agree that a combination of TOU tariffs and load control (appliance) tariffs would be useful for the smart management of peak demand?

Q3B. Do you consider that TOU pricing could have unintended consequences for congestion on the LV network?

Q3C. Do you consider that use of shoulder pricing as part of the TOU price structure could be an effective way to mitigate this risk? What other ways could be effective?

Comment

There needs to be a clear distinction between passive tariffs (such as TOU), where the consumer is incentivised to control load, and actively controlled tariffs where the consumer is compensated with a lower cost to serve by allowing some of their load to be actively controlled (such as an appliance tariff).

Passive tariffs (such as TOU) allow consumers to make informed decisions regarding how much they value access to electricity during certain times. If consumers are not responding to a correctly priced passive (TOU) tariff, then this signals to the EDB that consumers would prefer the investment required¹ (that the price was signalling) to provide capacity to meet any increase in demand over shifting their load.

Actively controlled tariffs (such as hot water) should only be necessary once there is an identified need and value from the service. This will typically involve active engagement with the consumers or their representatives (such as flexibility traders) to gain access to manage load and/or generation to meet the identified need. This is effectively a payment for access to control load when needed. The value (and payment via pricing) is for access to flexibility.

Q3A:

Horizon Networks does not consider that the level of load control (such as hot water) on our network is sufficient and in the right locations to address peak load and defer investment so does not currently actively manage hot water load.

Horizon Networks considers that TOU pricing can be useful to signal the cost of providing services during peak periods, and where the TOU price signal is being passed through to consumers this allows the consumer to respond to the TOU price signal.

Where price signals are not being passed through, consumers are unlikely to respond and the EDB will receive a potentially misleading signal that consumers are unwilling to shift load and would prefer investment to meet any increase in demand.

Smart management of peak demand could be further enhanced by improving access to meter data and transparent billing of consumers.

Q3B:

It is unlikely that residential TOU pricing will have unintended consequences for congestion on the network as residential consumers have a limited capacity to consume beyond their needs. As a result, TOU pricing will encourage the shifting of load.

¹ This investment may be in physical equipment, or in flexibility services.

However, in extreme cases, where the price signals are too strong, this may overstimulate consumer response and result in unnecessary constraints on the network.

Horizon Networks currently considers the risk of unintended consequences to be low, where TOU pricing is passed through to the consumer.

Q3C:

Horizon Networks has a pricing structure that includes shoulder pricing; however, current modelling has shoulder pricing at the same level as off-peak. Shoulder pricing was not implemented to mitigate the risk of unintended consequences for congestion. This option was chosen to align our pricing structure with other similar TOU pricing.

In terms of effective ways to mitigate the risk of unintended consequences for congestion on the LV networks, this could include limiting eligibility for TOU pricing to certain consumer groups, investment in infrastructure to support peak load management, ensuring that EDBs have access to meter data and ensuring TOU pricing signals are passed through to the consumer.

Q4. Do you agree with the assessment of the current situation and context for peak period pricing signals? What if any other significant factors should the Authority be considering?

Comment

Horizon Networks does not agree with the current situation and context as described by the Electricity Authority.

The assessment of the current situation (paragraph 4.19) is flawed in that it relies on the output of pricing materials without engaging with EDBs on the information that has been used to inform the pricing materials.

Horizon Networks has models to look at the forecast expenditure and costs that can be avoided through shifting of load to quantify the avoidable costs by consumer classes². These are then used to develop TOU pricing. Horizon Networks also does not use flexibility services so has not priced for them. Given our quantification of avoidable costs, the TOU pricing already signals the value of shifting load for each consumer group.

This value is unbiased as to the type of technology or service that the consumer uses to shift load or avoid consuming during periods where there is a higher cost to supply.

TOU pricing is targeted at consumer groups that have quantified avoidable costs. Where there are no avoidable costs Horizon Networks does not offer TOU pricing. We consider this approach is cost reflective for each consumer group.

The Electricity Authority should be talking to EDBs and asking to see the logic and workings to understand the thinking and modelling that goes into an EDBs pricing for each consumer group. This is a low-cost approach that will reduce the number of assumptions that are made regarding what has (or has not) been considered when reviewing prices and updating the pricing methodologies.

The Electricity Authority should also consider the rationale for TOU price differentials. For Horizon Networks this differential is a direct result of the avoidable cost for that consumer group. If consumers are exposed to the TOU price signal and are willing to consume during peak periods then that is a clear signal to the EDB that consumers would prefer to pay for the necessary investment to provide supply during peak periods, over shifting load away from those periods.

EDB price signals are not going to be effective unless the consumer who is making the consumption decisions is exposed to them. The effectiveness of the retailer's pass-through of the signal is a factor that needs to be considered by the Electricity Authority. Distortionary pricing by retailers (such as

² These are sourced directly from our [asset management plan](#).

'free' power hours incentivising consumption at certain times that will create new peak periods) may create a moving target where EDBs shift their peak periods based on when new peaks are occurring, which results in retailers shifting their distortionary pricing, creating new peak periods.

Q5. Do you agree with the problem statement for peak period pricing signals?

Comment

No.

In paragraph 4.28 the Electricity Authority claims there is little evidence that the strength of the signal is tied to the cost consequences of usage. Horizon Networks suspects this is because the Electricity Authority has not actively looked for evidence or sought to understand how EDBs identify avoidable costs and allocate them to TOU tariffs.

For example, Horizon Networks TOU pricing is directly linked to the forecast expenditure on our AMP which can be avoided if consumers shift load away from peak periods.

Horizon Networks recommends: The Electricity Authority work with EDBs to gain an understanding of how EDBs are determining avoidable costs and allocating these to TOU tariffs. This can be used to develop an informed problem statement.

In paragraph 4.27 of the issues paper the Electricity Authority notes that many consumers remain on uniform usage tariffs and there appears to be little progress to establish price signals that reward flexibility.

This does not appear to be a problem as it is not clear what the negative outcome that the Electricity Authority is trying to avoid. Many consumers remain on uniform usage tariffs for two reasons:

1. This is what they have contracted with from their supplier; or
2. There are no constraints or load growth within that consumer group that would warrant the EDBs developing a TOU tariff.

For Horizon Networks most consumer groups are on uniform usage tariffs and do not have the option of moving to a non-uniform tariff. This is an informed, evidence-based price signal that reflects the lack of future systems growth investment needed to support load growth for that consumer group.

Flexibility remains an emerging technology and for Horizon Networks we have yet to identify a business case that would justify the procurement of flexibility services on a scale that requires a pricing mechanism.

For price signals to be effective, consumers need to be exposed to and respond to the price signal. Unless retailers provide those signals to consumers, a change in consumer behaviour and the cost savings that change in behaviour provides will not be realised.

As noted in our cover letter, there is a need to focus on the consumer and consumer behaviour. This will likely require industry-wide pricing reform, rather than simply focusing on distribution prices.

Additionally, the introduction of new prices and new price categories is not a simple process and requires an identified need and consultation with customers and consumers. This is the approach we took when introducing TOU pricing from 1 April 2022.

Q6. Do you have any comments on the Authority's preferred pricing for peak periods?

Comment

The Electricity Authority's preferred pricing for peak periods is unclear and does not appear to be linked to a problem or evidence of a problem. While these proposals would progress change, it is not clear if these will provide a consumer or customer benefit.

In terms of the individual views, Horizon Networks has the following comments:

Rapid phasing out of uniform usage tariffs for networks with anticipated congestion.

This will introduce an additional element of volatility for retailers and direct billed consumers that unlike the wholesale market they cannot hedge against.

The consumer impact of this decision needs to be considered as this additional risk will be built into consumer bills³.

While we don't have anticipated congestion Horizon Networks is expecting to invest in the network to meet forecast system growth. As a result, we have a TOU tariff targeted at residential consumers and small businesses that is directly linked to costs that can be avoided if peaks are reduced. The remaining consumer groups are on uniform usage tariffs, which reflects that there are no avoidable costs for those consumer groups.

Rapid phasing out of deemed and residual profiles for smart meters

Horizon Networks interprets this to be the deemed and residual profiles used by traders in the settlement of the wholesale electricity market. The provision of half-hour information will not improve TOU billing as we are already receiving EIEP1 information that is time sliced into the peak, shoulder and off-peak periods required for TOU billing. The provision of HHR information will improve the visibility of the LV network and may improve the ability to allocate costs to consumer groups.

Differentials between peak and off-peak rates

Horizon Networks considers it is already quantifying the avoidable costs for its TOU tariffs. These are clearly linked to forecast expenditure within the AMP that can be avoided if peaks are reduced. TOU prices are based on economic analysis and pricing models that were built in 2021 and are updated annually.

Platform-agnostic prices that signal the value of flexibility

As noted in our response to Q3, any "actively controlled" tariff will require the EDB to be able to control the load when it needs to. Horizon Networks agrees that "actively controlled" tariffs can be platform agnostic if the platform can meet certain performance standards required by the network. Consistent with the theme of our submission, to provide a consumer benefit any price signal for flexibility needs to be passed through to the consumer providing the service.

Efforts to ensure signals are coherent and internally consistent across and between tariffs and consumer groups

Horizon Networks is not clear what the Electricity Authority intends by this statement. Pricing involves complex modelling and the characteristics of each consumer group (number of customers, total consumption, contribution to peaks etc) affect their final price and the final price of other consumer groups. Horizon Networks considers that prices and price signals should reflect the cost to serve (and avoidable cost) for each consumer group and that our current pricing practices achieve this.

Standardisation on ICP pricing (pricing based on individual consumption)

³ As noted by the Electricity Authority in footnote 48 of the [issues paper](#), this is likely to favor large retailers who have a lower after-diversity peak demand.

Horizon Networks interprets this to refer to ICP billing rather than pricing. Pricing is set by consumer group and does not discriminate by retailer. Horizon Networks does not support any proposal to require individual pricing for each ICP on our network. Horizon Networks currently bills by ICP so sees no issue with the proposed approach. We do note that some EDBs use market system information (from the registry and reconciliation manager) to bill retailers, and we can see the appeal of this approach which ensures the EDB bills are consistent wholesale market bills.

Q7. Are there other options you think the Authority should consider for improving peak period pricing?

Comment

The Electricity Authority should understand and communicate the problem which means peak period pricing is not achieving the desired outcomes.

The proposals appear to be based on the assumption that current pricing practices are inaccurate, and the Electricity Authority is the only organisation with a sufficient understanding of distribution pricing to be able to intervene.

An alternative to the proposed directive approach would be to develop a collaborative approach that looks to understand how EDBs have implemented peak period pricing and work with EDBs to identify effective solutions using the tools and analysis already developed.

Q8. Which if any of the above options do you consider would best support distribution pricing reform around peak pricing signals and why?

Comment

Horizon Networks considers that consumers will benefit most from a collaborative approach to distribution pricing reform. This will ensure changes remain focussed on the consumer and the paradigm within which the EDB operates.

The best option to support industry pricing reform would be to improve retailers' ability to pass-through price signals to consumers. Pricing reform is unlikely to be effective if it focuses solely on one input. The focus needs to be on the consumer and their response to price signals. Retailers and consumers are a key part of ensuring there is a cost-effective transition to a low-emissions economy.

Q9. Do you agree with the assessment of the current situation and context for off-peak pricing signals? What if any other significant factors should the Authority be considering?

Comment

Horizon Networks agrees that material off-peak usage charges remain common, particularly for uniform tariffs where there are no avoided costs by consuming during different times of the day.

Horizon Networks agrees that the LFC regulations limit the amount of revenue that can be recovered from LFC customers via a fixed daily charge and any shortfall needs to be recovered via usage charges.

Horizon Networks does not agree with the suggestion that this issue could be avoided or mitigated by allocating less target revenue to residential consumers. Manipulating the target revenue allocation will lead to poor consumer outcomes. Allocation of target revenue is based on the cost to serve each consumer group, arbitrarily reallocating target revenue outside of a given consumer group is distortionary and risks the creation of cross-subsidies between consumer groups.

Horizon Networks understands that making TOU pricing available to consumers is not a priority for many retailers as it requires major system changes to implement. Horizon Networks considers a lack of pass-through of price signals to consumers is a barrier that will diminish the benefit of TOU distribution price signals.

Horizon Networks recommends: The Electricity Authority consider consumer response as part of any pricing reform discussion to ensure their needs are considered before changes are made.

Q10. Do you agree with the problem statement for off-peak pricing signals?

Comment

Horizon Networks agrees that prices should be efficient and cost-reflective, and our TOU model looks that the upcoming investment required and the gap between peak and off-peak prices reflects the avoidable cost.

Horizon Networks considers that this problem applies equally to retailers and EDBs, unless the consumer is exposed to these price signals the problem of inefficient investment signals for technologies that matter for efficient electrification will remain.

Q11. Do you have any comments on the Authority's preferred pricing for off-peak usage?

Comment

The Electricity Authority's preferred pricing is for low or zero kWh charges for off-peak usage with residual cost recovery achieved through fixed charges.

In principle, Horizon Networks agrees with this approach, with the caveat that the low fixed charge regulations limit our ability to recover distribution costs via fixed charges.

Where there is a peak or off-peak price signal, Horizon Networks considers this approach will not be effective until retailers are passing these signals onto consumers who can then choose to respond to those signals. Until consumers are actively receiving and responding to price signals, any requirement for EDBs to provide TOU pricing will not result in the consumer response necessary to support an efficient transition to a low-emissions economy.

Q12. Are there other options you think the Authority should consider for improving off-peak pricing?

Comment

The Electricity Authority should consider extending any regulation of price signals to retailers to ensure price signals are received by consumers that want to engage with the electricity industry. Unless consumers are exposed to and respond to price signals, distribution pricing reform will be ineffective.

Horizon Networks cautions against prohibiting uniform usage charges. There are situations where a low uniform usage charge may be efficient and necessary.

The Electricity Authority should also consider consumers that place a high value on the certainty of pricing and do not want to be exposed to peak and off-peak pricing.

Q13. Which if any of the above options do you consider would best support distribution pricing reform around off-peak pricing signals and why?

Comment

Similar to the peak pricing reform, Horizon Networks considers that consumers will benefit most from a collaborative approach to distribution pricing reform (see response to question 8). This will ensure changes remain focussed on the consumer and the paradigm within which the EDB operates.

Only consumers have the ability to respond to price signals (including non-TOU price signals). These signals need to be received by consumers in order to be effective.

Q14. Do you agree with the assessment of the current situation and context for target revenue allocation? What if any other significant factors should the Authority be considering?

Comment

Horizon Networks agrees that cost allocation is complex and that EDBs have developed models and methods to equitably allocate revenue across consumer groups.

Horizon Networks does not agree with the claim that residential consumers are over-allocated a proportion of shared costs but we recognise there is an opportunity to improve consistency and understanding of target revenue allocators.

The other significant factors the Electricity Authority should consider are:

- the lack of reform signals and guidance regarding target revenue allocation that has been provided by the Electricity Authority to date
- the willingness of EDBs to engage with the Electricity Authority to improve and simplify their allocators
- the consumer impact of any reallocation

Q15. Do you agree with the problem statement for target revenue allocation?

Comment

Horizon Networks agrees that there is a need to understand subsidy-free ranges and shifting away from complex allocation methodologies is likely to be beneficial.

Horizon Networks understands the Electricity Authority considers the problem is that there is little evidence of EDBs addressing the issues of efficient allocation of target revenue to consumer groups or of EDBs having a clear understanding of subsidy-free ranges.

Horizon Networks considers subsidy-free ranges when it allocates target revenue to consumer groups. Horizon Networks' approach to the allocation of target revenue is accurate and effective.

Horizon Networks also notes that this is a new issue and there has been no previous indication that EDBs are not operating within the requirements of the distribution pricing principles.

There is an opportunity for the Electricity Authority to work with EDBs to understand the current complexities of target revenue allocation within the various approaches and see how these consider subsidy-free ranges and comply with the distribution pricing principles.

Horizon Networks recommends: The Electricity Authority work with EDBs to understand how target revenue is allocated, and if there is benefit in issuing further guidance regarding target revenue allocation.

Q16. Do you have any comments on the Authority's preferred pricing?

Comment

In terms of the preferred pricing approach, Horizon Networks considers it is already meeting several of the points raised, including:

- Accounting cost allocation to our large customers based on the assets they use.
- Use of AMD for allocation of target revenue to consumer groups.

- Testing prices against subsidy-free range estimates (provided by a third-party consultant).

Horizon Networks would expect the Electricity Authority's preferred pricing approach to include education and engagement with EDBs to understand each EDBs pricing approach and models so that appropriate feedback can be provided regarding the effectiveness of the allocators and methodologies.

Q17. Are there other options you think the Authority should consider for improving target revenue allocation?

Comment

Horizon Networks agrees that an approach that allows the Electricity Authority to fully explore and understand the range of EDB views and undertake a collaborative engagement and analysis of cost allocation approaches would lead to positive consumer outcomes.

Horizon Networks does not support unnecessarily regulating target revenue allocation.

Q18. Which if any of the above options do you consider would best support distribution pricing reform around targeted revenue allocation?

Comment

Horizon Networks supports the proposal for more engagement and support from the Electricity Authority regarding targeted revenue allocation. Horizon Networks recognises that the Electricity Authority has greatly improved its engagement recently and supports continuing this approach.

Horizon Networks does not support unnecessarily regulating target revenue allocation.

Q19. Do you agree with the assessment of the current situation and context for connection pricing? What if any other significant factors should the Authority be considering?

Comment

Horizon Networks acknowledges that the approach to allocating connection costs differs for each EDB.

Horizon Networks considers its connection pricing is efficient as it looks to allocate the full cost of the connection to the connecting party, including both the immediate connection costs and a contribution to the costs associated with bringing forward system growth investment (due to the additional load being connected).

The costs associated with bringing forward system growth investment are covered by our infrastructure development contribution and have been calculated to ensure that existing consumers don't pay more solely because of the new connection, and the new connection pays the true cost of connecting to the network. Once the site is connected, the consumer faces no additional ongoing charges.

Horizon Networks also has a scheme to refund a share of connection costs when other parties connect, addressing the Electricity Authority's concerns around first mover disadvantage.

Horizon Networks' approach is to ensure that existing customers do not face a change in charges (now or in the future) solely due to new connections on the network.

However, we are aware that other EDBs have different approaches and views that result in varying costs for connection and downstream impacts.

The Electricity Authority should be considering the fact that different EDBs have different approaches to allocating connection costs to the connecting party and to consumers. The consumer impact of the allocation of connection costs to parties other than the connecting party should be a core function of connection costs.

Q20. Do you agree with the problem statement for connection pricing?

Comment

No. Horizon Networks considers that the problem is that the inconsistency in connection pricing approach and terminology leads to inefficient signals and decisions.

An EDB that is not recovering the full costs of connection from the connecting party (including the cost of bringing forward system growth investment) will need to invest in the network to support the connection. This approach could be viewed as subsidising the cost of connection for connecting parties.

Any subsidy for connection costs will incentivise more connections but ultimately harm consumers who are paying for the connection costs.

Q21. Do you agree with the Authority's preferred pricing approach for connection charges?

Comment

Horizon Networks agrees with the principle that connection charges should be subsidy-free. Horizon Networks does not want to have to increase prices for consumers because we are required to allocate more expenditure to support new connections or charge more because we have needed to bring forward growth investment because of new connections.

Horizon Networks does not believe that standardised pricing options will be beneficial to consumers, connections can vary from simple to highly complex and the connection costs will also vary greatly depending on the work and assets required to connect.

Horizon Networks disagrees with the statement regarding 'funding anticipatory capacity'. Horizon Networks interprets this to mean that the Electricity Authority does not support the use of an infrastructure development contribution. Horizon Networks considers this contribution is an important tool to address the impact of new connections on the timing of growth investment. This infrastructure development contribution ensures that existing consumers do not pay more due to the new connection forcing upgrades to be made earlier. Our infrastructure development contribution requirement is based on an average cost per MW of capacity based on historic costs incurred to upgrade the network.

Horizon Networks agrees that there would be value in having consistency between distributors. This can be achieved if EDBs can understand the issues the Electricity Authority is raising, and the Electricity Authority can understand the challenges EDBs face in ensuring that the connection process is simple and does not impact existing consumers.

Q22. Do you have any thoughts on the complementary measures mentioned above and to what extent work on these issues could lead to more efficient outcomes for access seekers?

Comment

Horizon Networks has concerns that the proposed complementary measures have not been fully explored or understood.

In terms of the publication of heat maps, increased access to smart meter data is needed to provide EDBs with greater visibility on the LV network. Connections to the HV network are less common and are typically very complex so will be of less value to connecting parties.

In terms of allowing access seekers to contract works directly from a large pool of approved providers, there are currently two providers who can connect consumers to our network. These providers both meet the safety and operational needs of the network.

Horizon Networks is concerned that the Electricity Authority is conflating the direct cost of providing the new connection (covered by the EDB's capital contribution policy) with the cost associated with engaging a provider to connect the customer's ICP to the network (connection services).

Connection services are subject to competition, and due to a limited pool of providers, some EDBs such as Horizon Networks have related parties that can provide this service.

These related parties are required to operate at arm's length and will offer services at market rates. Any proposal by the Electricity Authority to regulate these providers risks undermining the competitive basis under which they operate.

Capital contributions are the costs faced by the EDB as a result of the customer connecting. Capital Contributions seek to recover incremental capital costs associated with connecting a consumer to the network. These costs do not change based on who the customer chooses to engage to connect the ICP to the network.

Horizon Networks is concerned that proposals to regulate connections and connection practices risk conflicting with Commerce Commission regulations and expectations, including new connection measures consulted on as part of the targeted information disclosure review⁴ and the recent "large connection contract" mechanism. The "large connection contract mechanism" has been noted by the Electricity Authority in Appendix B, but not within the complimentary measures identified.

Q23. Are there other options you think the Authority should consider for connection pricing?

Comment

The issues raised regarding connection processes and connection charges are relatively new (raised within the past 12 months and not yet incorporated into pricing methodology updates).

An alternative to the options provided in the paper is for the Electricity Authority to take a collaborative approach to work with EDBs and connecting parties to develop practical industry guidance regarding the connection process, and capital contributions.

This guidance can then be used as a baseline for EDBs and the Electricity Authority from which the effectiveness of pricing reform can be measured and the need for regulatory intervention quantified.

Q24. Which if any of the above options do you consider would best support distribution pricing reform in the area of connection pricing?

Comment

Horizon Networks supports a collaborative educational approach that ensures that there is a baseline expectation regarding behaviour and allocation of connection costs.

Horizon Networks expect that any education or regulation of behaviour would make reopening the price path necessary, as price paths are based on expected levels of expenditure (which are lower where EDBs are not required to cover the costs of connection).

Horizon Networks would support the Commerce Commission being involved in any regulatory change that materially impacts areas it regulates, including new connection practices and the costs faced by EDBs and consumers for new connections.

⁴ The targeted information disclosure review tranche 1 final decision paper decision Q3 set out additional qualitative connection practice disclosures and signalled that quantitative disclosures on new connections would be considered in tranche 2.

Q25A. Do you agree with the assessment of the current situation and context for retailer response? What if any other significant factors should the Authority be considering?

Q25B. [**for retailers**]: What plans do you have for responding to distribution price signals as distributors reform their price structures? What barriers do you see to responding efficiently?

Q25C. [**for distributors**]: What plans do you have to increase the proportion of your customers that face time-varying charges (for example, making TOU plans mandatory for retailers whose end-users have an AMI meter installed)?

Comment

Q25a: No. While the use of deemed and residual profiles is common within the settlement of the wholesale electricity market, Horizon Networks is not aware of any electricity retailers that are providing us 'through day' or 'peak vs. off-peak' data based on a profile. Horizon Networks expects all data for billing to come from HHR meters or NHH meters with registers that have been configured to match the time periods for 'through day' tariffs.

A significant factor not covered in the assessment is the purpose of the non-uniform tariff. Horizon Networks considers the purpose of the non-uniform tariff is:

For "passive" tariffs – to signal to consumers the costs associated with consuming during peak and off-peak periods.

For "actively controlled" tariffs – to signal the value of having access to load that can be controlled.

Critically these are a signal for consumers (not retailers) and require the consumer (not retailer) to respond.

Additionally, the lack of a non-uniform tariff is a price signal. It should not be assumed that uniform tariffs are inefficient.

Q25c: From recent conversations, it is Horizon Networks' understanding that many retailers do not have systems in place to bill consumers on a TOU price. We understand it may be years before TOU pricing is widely available to consumers.

Following discussions with retailers, Horizon Networks staff are looking at options to improve TOU, and believe uptake will be improved by:

Better alignment between TOU standard and non-TOU standard fixed charges. This will make it simple for consumers to understand the value of shifting load.

Increased TOU price differential due to increased system growth expenditure forecasts. As studies are completed into the impact of electrification and decarbonisation on the network system forecast capex for system growth will likely increase. This expenditure can be deferred by consumers shifting load from peak periods, and the value of that deferral is used to derive our TOU prices.

Horizon Networks opposes making TOU pricing mandatory where there are no avoidable costs. We have quantified the benefits of TOU pricing as being with residential and small business ICPs (connection capacity up to 15kVA). We have not extended TOU pricing to higher price categories because these connections have much lower avoidable costs (if any).

Q26. Do you agree with the problem statement for retailer response?

Comment

No. Horizon Networks disagrees with both elements of the problem statement.

In terms of the two problem statements raised:

Continued use of deemed or residual profiles for network billing – we are not aware of this occurring and network billing is based on data provided by retailers and sourced from meter readings allocated to the correct time periods. If a retailer is not providing accurate information this is a significant concern beyond pricing reform.

Overly permissive assignment policies for transitioning ICPs to non-uniform tariffs – this is a symptom of poor retailer pass-through of price signals. By focusing on the consumer and the price signals they receive the industry can ensure that appropriate price signals are received by consumers. Effective, consumer-focused price signals are necessary to support an affordable transition to a low-emissions economy.

Q27A. Do you have any comments on the Authority's preferred pricing?

Q27B. [**for retailers**]: What use do you make of deemed and residual profiles? Please explain the reasons for this. What barriers do you see to phasing out use of deemed and residual profiles?

Comment

Horizon Networks disagrees with the Electricity Authority's view. The proposal to bill retailers based on actual half-hourly usage does not recognise that billing for non-uniform tariffs does not require an AMI or HHR-capable meter. A non-AMI NHH meter that has registers aligned with the EDB price structures will produce exactly the same bill as an AMI HHR meter.

Additionally, billing retailers using non-uniform tariffs will not provide a network benefit unless consumers are exposed to the price signals, so the consumer has the incentive to respond. Without a consumer response to price signals, there will be no change in consumer behaviour and no cost savings for EDBs and consumers.

However, Horizon Networks notes that the provision of more EIEP3 information can enable EDBs to better understand the consumption and peaks within the LV network, which will improve the efficiency of pricing initiatives and peak demand management. Horizon Networks supports the provision of HHR data from all HHR-capable meters for this purpose.

Horizon Networks does not support the introduction of mandatory non-uniform tariffs because this does not consider individual EDBs' circumstances and if there are avoidable costs that would justify a non-uniform tariff. Horizon Networks has reviewed its customer groups and for many larger consumer groups, there are no avoided costs, so no need for a non-uniform tariff.

Q28. Are there other options you think the Authority should consider for retailer response?

Comment

An additional option would be to extend the monitoring of retail pricing to include applying a scorecard approach to retailers regarding how effective they are in passing price signals through to consumers.

This approach could also look to assess the effectiveness of the signals in influencing consumer behaviour, which ultimately reduces the cost to supply consumers for both distribution and energy.

Horizon Networks cautions against implementing any backstop regulations. The proposals the Electricity Authority is considering may not provide long-term consumer benefits. Regulation (including backstop regulation) will set the requirements for pricing reform and is likely to lead to poor consumer outcomes if made before the issues are understood and there are practical actions to address.

Consistent with the theme of this submission, the Electricity Authority should collaborate with consumers, retailers and EDBs to understand the challenges and benefits of pricing and consumer

response to price signals. This can help ensure that there is a shared understanding and clear goals.

Q29. Which if any of the above options do you consider would best support distribution pricing reform in the area of retailer response?

Comment

Horizon Networks considers that consumers would be best served by receiving the price signals that distribution pricing reform is trying to convey.

Any regulation of EDB pricing should include a proportional regulation of retailer pricing to ensure that the price signals are received by consumers.

Horizon Networks expects retailers will look to manage their input costs as part of pricing for consumers. Retailers can manage spot market volatility through energy hedges however, retailers have no such mechanism for non-uniform distribution pricing. As a result, Horizon Networks expects retailers on TOU distribution pricing, but offering consumers a fixed kWh price regardless of the time the electricity consumed will increase the risk premium within their charges to the consumer.

This would be a poor consumer outcome that would increase costs to consumers without providing the consumer with an incentive to respond to price signals which will ultimately support an efficient transition to a decarbonised energy system.