EA networks
connecting our community

0800 430 460

22 JB Cullen Drive
Ashburton Business Estate
Ashburton

Private Bag 802
Ashburton 7740
New Zealand

eanetworks.co.nz

11 August 2023

Submissions
Electricity Authority
PO Box 10041
Wellington 6143

by email: network.pricing@ea.govt.nz
(subject line "Issues Paper— Targeted Reform of Distribution Pricing")

Submission on Targeted Reform of Distribution Pricing Issues paper

Thank you for the opportunity to provide feedback on the Electricity Authority's (the Authority) Targeted Reform of Distribution Pricing Issues Paper (the Issues Paper) dated 5 July 2023, which sets out five key areas of focus for reform and three regulatory options to promote reform.

We have responded to the questions in the format provided in Appendix G of the Issues Paper (attached), but also wish to draw out some higher-level themes, as follows.

Decarbonisation first

The Authority's angle, which is supported in the Issues Paper, is the dual goal of supporting a shift to a low emissions future at least cost to customers. In terms of influencing customer behaviour, we think that the goal of *decarbonisation transition* is more important than the goal of doing this at *least cost*. If decarbonisation is achieved through mechanisms that are not quite the lowest cost approaches, then we think this is still a good outcome.

For New Zealand, our biggest opportunity for decarbonisation is through electrification of transport and process heat. For this to work, among other things, we will need more renewable generation. We know that bespoke small-scale roof-top solar generation is not the most efficient form of renewable generation, and we observe that the Authority's concerns have focused on removing the artificial incentive that our volume prices have for adoption of this technology. However, our customers like to be able to participate in the decarbonisation transition. Reducing the incentive for small scale solar generation is not going to divert that funding to lower cost renewable generation options. A consequence of the change that the Authority is promoting will be that less renewable generation is developed.

This, in itself, is not a reason to change our path of reducing volume pricing, but is a factor that may temper our rate of change, and extent to which we ultimately reduce our volume prices.

Separately, reflecting costs associated with constraints that come and go creates uncertainty in future prices. Industrial customers that are considering electrification express concern to us about volatility in future energy prices, and adding volatility in distribution charges would compound this concern. If industrial customers are aware that the actions of other connecting customers may create a capacity constraint that will affect their charges, they may look for alternatives that carry less risk.

These points show that, somewhat ironically, the Authority's distribution pricing reform is adversely affecting our decarbonisation transition. When considering the trade-offs between different pricing options, we think that these impacts should be taken into account.

A higher level look at cost reflective pricing

The Issues Paper sets out a section on peak pricing and asks some detailed questions on the use and structure of TOU tariffs. We are concerned that the consultation has missed the opportunity to address some higher-level issues.

- Cost reflective pricing vs side payments to flexibility service providers – both are being promoted by the Authority and are valid options to reward behaviour that reduces costs. However, they are mutually exclusive. If the pricing structure truly reflects costs, then any behaviour change will be accurately rewarded with reduced charges … there's no spare revenue to fund a separate payment to a flexibility service provider. If we do wish to utilise flexibility service providers, then we need to apply additional (non-cost reflective) flat charges in order to collect revenue to make the payments.

- Short run vs long run, average vs marginal – the Authority has been promoting a short run marginal cost focus which presents a number of issues for our customers. This appears to have changed to a long run focus, and short run has now been redefined to relate to incremental operational costs only (previously it related to imminent capital upgrades). Alongside the pure economic considerations, we need to properly consider the elasticity of demand, the impact of uncertainty at a time when we are promoting electrification, the transaction costs of more localised pricing approaches and customer preferences. Clarifying the costs we aim to reflect is a starting point for cost reflective pricing.

Managing load – there's a lot more to lose than there is to gain

We support initiatives to enhance management of load, including through flexibility services, to avoid unnecessary upgrades and to facilitate the integration of renewable generation. However, we need to be cautious, as it's very easy to drive adverse outcomes, and quite difficult to drive efficient outcomes.

In the absence of coordination, our customer driven load is naturally diversified. People are all very different, and use electricity at different times. When one customer is cooking dinner, many others are not, and this allows us to optimise the size of our network, providing shared capacity that is used by different customers at different times. Influencing behaviour affects this diversity. For example:

> *We know that at times of peak hot water usage, only a third of hot water thermostats are actually turned on. Managing and deferring this load, and then switching it on some time later turns a 10MW load into a 30MW load.*
>
> *Studies and trials of EV charging shows that a group of customers with 7 kW home charges will only add about 1.5 kW to peak evening load each (some start earlier, some later, and some don't charge every day). Providing an effective time-of-use signal could see all chargers turning on at 9pm, and the undiversified load would then eclipse all other peaks.*

We urge caution in promoting market driven solutions as these tend to focus on the realm and profits of the facilitator, and lack the holistic view of wider cost impacts. We observe that electricity retailers view our charges as a cost to pass through, and will embark on plans for savings and profits within their own operations, without consideration for the impact on other areas.

A real world example of an inefficient outcome is summarised in this newspaper article: https://www.odt.co.nz/news/dunedin/power-cuts-north-dunedin-blamed-free-hour-power

Fixed charges are not a goal

A lot of the documentation from and feedback we receive from the Authority appears to promote fixed charges. We don't think that fixed charges should be seen as a goal or target, they are simply an alternative to volume-based charges. The real goal is, in fact, to reduce the inefficient distortionary incentives that come with volume-based pricing.

All pricing options carry inefficient incentives, and the challenge for us is to select pricing options (or combinations of pricing options) that least distort behaviour. We are observing inefficient responses to fixed charges (disconnection), and that will grow as the magnitude of fixed charges increases. For example:

> *Last week we processed a capacity downgrade for the customer of a pumping connection in Winslow Willowby Road. The connection was in our irrigation category where we apply fixed charges based on the size of the pump motor. In this case the customer has elected to install a generator to operate the infrequently used 30kW irrigation pump. The electrical connection has been downgraded to a nominal size supply despite local assets being in place to support the electrical pumping capacity.*

AMD is not the enemy

More recently the Authority has been expressing concern about distributors using anytime maximum demand as a charging metric. In our view and experience, this is one of the least distorting and hardest to avoid charging metrics. If a customer manages to reduce their peak demand, then the next highest loading level, which is invariably not much lower, becomes the chargeable peak. AMD should not be viewed as a volume based charge, and should instead be considered as a an approach for capacity based charging.

For our residual charges it would be inequitable to charge a small residential unit the same daily fixed charge as a large commercial factory, so we need metrics that reflect the scale of the electricity usage. Options are energy volume (kWh), physical capacity of the assets (eg the fuse rating), maximum demand (kW). All carry a degree of inefficient incentive, but of the three approaches, we have observed the least response to AMD pricing approaches.

Connection pricing

The Authority has indicated that this is a new area of focus, and its views are evolving. In this context we are very concerned that the Issues Paper sets out a preference that includes regulating to prohibit or mandate specific approaches. Our responses to the questions in the attached show significant

additional aspects to consider in relation to connection charges which may be undermined through regulation that has a narrow focus.

In context, we have approximately 21,000 customers and only about 300 new connections each year. We are close to our customers, and we don't perceive an issue with our new connection approach from the feedback we receive. It is important that we focus our attention to maximise the results, and we question if this area warrants close attention at this stage.

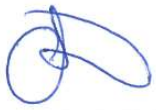
We are concerned that the Authority has included this area of focus in response to a small subset of our new connections – electric vehicle fast chargers. We accept that this customer group would like to pay less to connect, but we are not in a position to support one commercial initiative over another, or one decarbonisation technology over another.

Where capital contributions are consistently applied they lead to lower ongoing charges for customers. The interests of those that have "bought in" through a capital contribution would be undermined if subsequent customers do not pay. Those subsequent customers would enjoy a lower entry fee as well as lower ongoing charges due to the pre-funding by prior customers. The Authority's call for standardisation would evoke these inequitable outcomes.

For those distributors that are already in the process of reviewing their capital contribution approaches, the Authority's threat of regulation is likely to delay any development. We submit that at this early stage in the Authority's thinking, our goal should be to develop guidelines and best practice, rather than to mandate change.

Concluding remarks

Thank you again for the opportunity to provide feedback. If you have any queries regarding these comments, please feel free to contact me on 027 248 8614 or at anisbet@eanetworks.co.nz.



Alex Nisbet
Pricing Manager

Appendix G Format for Submissions

Submitter	Electricity Ashburton Limited

Questions
Q1. Are there other options that you think the Authority should consider? We would like to see a further option added where the Authority facilitates and supports guidelines and development of best practice. At an industry level there is a strong appetite to develop themes and approaches that are well thought-out, and where distributors know that they are acceptable to the Authority, they will be adopted. Rather than the current approach which points out areas where a distributor's approach might not align with the Authority's preferences, this alternative would provide solutions that do align with the Authority's preferences.
Q2. Do you have any comments on the options outlined? Any threat of regulation will, itself, slow or stop development as distributors look to avoid the cost and adverse impact on customers of imposing changes that might subsequently be revised to meet a regulated approach. The Issues Paper includes a range of proposals that include regulation, which, ironically, undermines the pace of reform that the Authority is seeking. Call in and control options run the risk of becoming default approaches that fail to recognise local circumstances and may prevent innovation. The default distributor agreement is an example where the regulated default approach has effectively prevented access to information that would support pricing innovation. We submit that regulation should only be used as a last resort where it would address very clear cases of inefficient or undesirable outcomes. Regulation should only be used where a clear and well founded approach can be adopted, and regulation should be applied without a protracted lead-in period during which voluntary reform is effectively stifled.
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? Not in isolation. TOU tariffs are too blunt to incentivise coordinated management of load (for example, an off-peak period starting at 9pm may create a peak at that time), and the various methods of addressing this issue quickly become too complicated for retailers to administer and customers to understand (see our response to Q3C below). Controlled appliance tariffs only work where you have a captured appliance with storage. They work well for storage water heaters where the appliance is hard-wired (and can't be simply shifted to an alternative source which would defeat the control), where the appliances are largely uniform, and where the appliance can be turned off and on remotely. In the traditional sense, controlled tariffs are not suitable for EV charging, because: • EVs can be plugged in to alternative sources • EVs usually don't resume charging when power is restored • Retrofitting separate metered circuits and adding separate metering can be prohibitively expensive • EVs are very diverse, and a fixed charge reduction is not an equitable way to reward control of a load that may never be plugged in (or may even cease to exist at a premise) • Charging needs vary considerably between customers and from day to day, and AC home chargers (and electricity meters) cannot see the state of charge or battery capacity.

A controlled appliance approach would require development of mechanisms that can interact with the vehicle directly, assess and respond to different charging requirements, and report back metrics that allow the controlled behaviour to be rewarded. This technology is not currently available to us, and with the range of EV manufacturers, we are unlikely to see a ubiquitous solution.

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

Yes, as noted above.

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?

No. The nature of storage loads is that they can be set to take advantage of the cheapest option and avoid peak *and* shoulder periods. The alternative options we have considered to address this include:

- Setting many price bands throughout the day so that customers respond at different price points,
- Assigning customers to separate load groups and applying different times for the price changes to each group,
- Using off-peak pricing, rather than peak pricing – setting a short period for the lowest off peak pricing (for example, 3am to 4am) that is insufficient to in duration completely charge/heat (with flat prices at other times). This would attract customers to include that period in their charging schedule while maintain a diversified start time,
- Setting prices with small differentials so that customers do not respond (although this undermines the intent of the pricing).

For various reasons, we do not consider that these options provide workable solutions to the issue.

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?

No. Controlled tariffs and off-peak tariffs are very different, and there are many reasons that drive different pricing approaches. Controlled tariffs provide a certain response, whereas off peak usage is discretionary. Controlled tariffs target loads that can be turned off for shorter durations (and usually need to reheat during a shoulder period), whereas off peak tariffs reward load that has been shifted completely.

The flat tariff suggestion in paragraph 4.26 of the Issues Paper places a larger cost burden on residential customers than it does on business customers (because residential customers tend to have a higher load factor).

A significant factor that's overlooked is access to metering information to apply peak pricing. Not all customers have advanced meters, and those that wish to avoid peak pricing can refuse metering upgrades or request legacy metering (and there's a company providing this service). For those that do have advanced meters, the main retailers are unable to provide volumes that differ from the periods that are pre-configured in the meters. In other situations they are able to provide half-hour information but on a basis that is not "revenue quality".

A further challenge is that, for a specific location, the timing of the peaks that drive costs occur at different times in different parts of the network. Optimising pricing to reflect peaks in the local low voltage network will result in sub-optimal results in the high voltage network, subtransmission network and transmission network. Over many years we have identified that it is most efficient to focus efforts on the higher value upper network (where the network is shared, and one customer's reduction can offset another customer's increase), and to adopt standard sizing approaches for assets closer to each customer (where capacity needs to be sized more to meet individual peak loads). We do not think this will change with the adoption of electric vehicle charging.

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

No. In particular, even if we need to build capacity to meet new demands, we consider that total energy costs for customers will decrease rather than increase. Supporting this reduction:

- Intensification of energy will provide efficiencies in many areas of our network, and
- Electricity is much cheaper than the alternative fuels that will be offset.

We do agree that lower cost solutions are available, but we think that customers should be given the choice to adopt alternative approaches. Where a customer is prepared to pay for an electrical solution that meets their need (perhaps through a uniform usage tariff), then we should provide that solution.

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

For the vast majority of distributors that use an ICP pricing approach, in the distribution pricing space, deemed and residual profiles are not the issue that the Authority has presented. In these situations, the profiles used for energy reconciliation do not affect distribution billing in any way. Metered volumes are reported to distributors for billing based on:

- configured registers in the meter,
- half hour volume information accumulated by time period, or
- on a half hour basis.

In relation to energy reconciliation, we support the phasing out of deemed and residual profiles where possible, but for us, this is not a topic that sits under distribution pricing reform.

Controlled tariffs have proven to be a very useful way to gain access to and reward controllable load. However, the approach relies on a volume charging approach that rewards customers in proportion to the amount used on the controllable tariff, which in turn reflects the amount of controllable load. A fixed charge discount would not reflect the different usage levels, and the market would morph to the minimum sized controlled appliance that qualifies for the discount (and then that appliance may never be used). We know we are not in a position to police or keep up with changes in customers' appliances, and the volume charging approach allows us to be agnostic of this. Importantly, a controlled tariff is only attractive if the alternative is a higher priced volume tariff … if the Authority prohibits higher priced volume tariffs, then this distinction is lost.

We are concerned that "platform-agnostic" access to controlled tariffs would remove or reduce distributors' access to controllable load. The reduced price for energy supplied on a controlled tariff is intended to reflect the value of that control. We support the development of alternative platforms, but each will provide a different level and degree of access. Security of access will differ, separate control will impact availability and time-shift the controllable load, and the diversity of the load (which is significantly important) will be affected. Each alternative platform will need to be assessed on its own merits, also taking account of the cost to integrate each new system into our control arrangements. Mandating alternative access while requiring the controlled tariff price to remain will completely undermine the value proposition.

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

No

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

We oppose any mandated or regulated approach, as we don't think that it would take account of our customers preferences, nor the impacts on particular sub-groups within our customer base. Peak pricing has shown to be almost universally opposed by customers. Even those that stand to save see it as a penalty for using power when they need it the most. Peak pricing creates volatility as capacity constraints come and go (and networks are reconfigured). These attributes significantly undermine our efforts to encourage customers to electrify to decarbonise, and we must balance the need for efficiency incentives with the need to facilitate decarbonisation. This is best done at the local level, where distributors interact with their customers and can provide pricing approaches that suit customers' needs.

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?

We advocate for a more principled approach to the issue where we focus on developing the least distorting pricing basis for recovery of residual costs (instead of starting with the premise that off peak volume prices are a problem). All pricing options carry distortionary influences, and our challenge is to select the least distorting approach (or combination of approaches) while taking account of customer preferences and impacts.

Volume pricing is widely accepted by our customers, and even where it doesn't reflect our costs, it *does* reflect the relative value that customers derive from the delivered energy. That is, customers who use more, benefit more, and pay more.

Customers value off peak power. If they didn't then we could simply turn the power off overnight (which we clearly cannot do). This supports an approach where a small level of off-peak volume pricing can be used to recover residual costs without distorting behaviour unduly.

As noted in our cover submission, AMD should not be viewed as a volume-based charge. It is a method of capacity-based charging, rather than being an alternative (as suggested in paragraph 5.14 of the Issues Paper). It is significantly less distortionary than kWh based charging.

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

The use of the word "material" makes it difficult to know what level of off-peak charges are seen as problematic.

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

We do not agree that active management of target revenue allocation is a suitable solution. There are situations where it is difficult or challenging to recover an equitable share of costs in a non-distortionary way, but that does not mean we should instead charge those costs to some other group of customers that are less able to respond.

Notwithstanding this objection, we agree that a better understanding of the subsidy free range would assist distributors in revenue allocations and could help address issues. Developing industry model approaches to assist in determining subsidy-free ranges would be a pragmatic way forward.

As noted above and in our cover submission, we question the Authority's aversion to AMD based charging. A customer's own peak is a good measure of the relative use of the network (particularly in relation to assets that are closer to their connection), and is one of the more difficult metrics to avoid.

We are of the view that making use of a range of pricing metrics might provide the least distortionary incentives, as each price is low enough that a response is not beneficial for the customer. Depending on the customer size (and considering complexity), combining some or all of a small fixed price, a small volume price, a small connection capacity price and a small AMD price might provide the last distortionary basis.

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

No

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

We do not consider that the problem or solutions have been sufficiently defined yet, and we are not at a stage where we should be encouraging or mandating reform. As an example, the Authority's aversion to AMD charging is a new concern that has emerged in the last year, and the concerns highlighted are not consistent with our experience. Moving to prohibit this AMD as a charging metric may cause more harm than good.

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?

We agree that developing a better understanding of the subsidy free range will help distributors adopt efficient cost allocation approaches. We want to be able to show our customers that they are better off as a result of the contribution made by other customer groups.

However, when allocating costs within that subsidy free range, we want to show that we have been objective and equitable. We disagree that we should take a "purposive" approach that looks at the outcome (for example, loading up costs on a customer group that is unable to respond). We accept that it is challenging to recover residual costs in a non-distortionary way, but we don't think that justifies charging those costs to some other customer group.

We don't think that an accounting-based approach is unhelpfully, complex and opaque. We consider exactly the opposite to be true. An accounting-based approach is helpful as it tends to be objective, does not need to be complex, and is readily explained to customers. A purposive approach would tend to be complex, opaque and subjective.

We also question the reference to the 2019 Electricity Price Review. The Authority appears to:

- support prices that fall within the subsidy free range, but then suggest that this is an issue when referenced in the Electricity Price Review, and
- suggest that the subsidy-free range is not well defined, but then observe that residential customers are in the upper portion of the subsidy free range.

While this is not the case for us, distributors might have identified that residential customers respond less and may be taking a "purposive" approach to their allocations – an approach supported in the Issues Paper.

Many distributors do not apply specific residential pricing, and use cost allocation metrics that are agnostic to the end use of electricity. We question how this can be seen as disadvantaging residential customers.

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

No. We support the concept that resulting prices must fall within the subsidy free range, and that a better understanding of the boundaries for this range would be useful.

However, we consider that within this range, the level of pricing must also be fair and equitable, and transparently so. A building blocks approach to cost allocation (what the Authority is calling an accounting approach) provides this basis in a clear and transparent way.

It would be useful to avoid mixing the concepts of cost allocation and revenue allocation, which the Authority appears to use interchangeably in the issues paper. In a pricing methodology, allocating costs (in a way that reflects how customer groups contribute to costs) is a step that comes before any revenue assessment.

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

No. We support an accounting-based approach to cost allocations. The metrics that distributors use for allocations where costs are shared are already the simple metrics that the Authority mentions. We think that reducing inefficient distortion should be addressed when setting pricing structures, rather than though allocating costs.

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

No

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

We consider that this is a new area of concern, and we hope that the Authority's view will evolve as a result of the feedback it receives. We agree that distributors would benefit from better guidance for determining subsidy-free ranges. We think it is too soon to consider regulating specific outcomes.

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?

We agree with most of the context set out in the Issues Paper, and that it is appropriate for the spotlight to be turned on connection pricing to ensure that we achieve efficient outcomes through our decarbonisation transition. However:

- Paragraph 7.4 misses the key point that regulatory allowances are appropriately reduced by capital contributions. It also suggests that capital contributions fall outside the regulated efficiency incentives – this isn't the case, as efficiency incentives are affected where a distributor must invest in capital that might otherwise be funded by a customer (that is, adjusting capital contributions does have an impact on efficiency incentives).
- Paragraph 7.1 of the Issues Paper suggests that connection pricing is a capital contribution. This isn't necessarily the case. New connection charges (or some proportion of new connection charges) can be accounted for as a fee, rather than a capital contribution.

Within the subsidy-free range, there are three main aspects to consider when setting connection pricing.

1. Administration costs. Processing new connections and connection modification requests carries an administrative overhead that should not be borne by the existing customer base. This work includes maintaining a new connection process, recording connection attributes on asset management systems and the registry, assessing and recording compliance documentation (eg record of inspection), interacting with electricity retailers and metering providers. Some distributors also provide the initial electrical inspection and livening. Although relatively small, these costs are appropriately reflected with a flat fee covering broad categories of new connection.
2. Relative cost to serve. In most situations, new connections will be allocated to a pricing category that attracts standardised ongoing charges which do not reflect different costs to serve (for example, in terms of location). Connection pricing is a useful way to reflect different costs at the point that a customer is making a decision about energy sources and location. Reflecting higher costs in connection pricing then validates the application of a standardised pricing approach, which reduces ongoing transaction costs. It also facilities customer choice – for example, customers can elect to have a higher level of security, or locate connection assets in a more convenient (but more expensive) location.

3. Front loading. Connection pricing can be viewed as a front-loaded charge for the delivery service. Where connection pricing is higher, ongoing charges will be naturally lower, as fewer assets are capitalised to the regulated asset base, and other costs are covered. Front loading isn't, in itself, a bad thing, but it is important that it is applied consistently, both across customers and over time. Customers that pay more up-front should receive the benefit of lower distribution charges on an ongoing basis. In this context, any change can have inequitable outcomes. For example, a distributor that has consistently had high connection charges will have lower ongoing charges. If that distributor changes its approach and reduces connection charges, then new customers will get the benefit of that, and also enjoy lower ongoing charges effectively funded by those that joined before them. The Authority's call for more standardisation would require changes that would result in such inequitable outcomes. Our view is that any change needs to be applied gradually, over a long period of time.

A challenge when applying a relative cost to serve (point 2 above) is how to treat new connections that are lower than average cost. Ongoing distribution charges would usually reflect the average costs for the connection category. On the face of it, this would imply that lower-cost connections should receive a credit when connecting. However, this would provide perverse incentives. Applying a base level of front loading (point 3 above) to all new connections usefully addresses this issue, and can be used to ensure that all new connections attract a charge and relative costs to serve can be reflected.

Large users that attract bespoke distribution charges can also have bespoke connection pricing. In this situation front-loading can be a useful way of addressing stranding risk that would otherwise be borne by other customers or shareholders. Applying a connection charge equivalent to the non-recoverable costs of a new connection for a large user appropriately leaves that risk with the customer requesting the connection.

Finally, front-loading some proportion of charges is a useful way to address "agency risk". This agency risk occurs when the party requesting a new connection (a developer) will not become the customer at that connection. In the absence of some capacity related front-loaded charges, the developer is incentivised to inefficiently oversize the capacity to the connection. This is a very commonly observed issue, and the inefficient oversizing is a cost that is either borne by the subsequent customer, or spread across the customer base.

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

See above. We consider that applying a consistent approach over time is more important than standardisation.

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

No. The Authority has indicated a preference for reducing connection pricing, and we do not think that front-loaded pricing is necessarily a bad thing (where costs fall in the subsidy free range, and ongoing distribution charges appropriately reflect the up-front contribution). The Authority also suggests standardisation, yet we consider that change for the sake of standardisation will drive inequitable outcomes for customers.

We do agree that connection pricing should be reviewed to ensure it is set appropriately, that improvements can be made in terms of transparency and consistency, and that there are opportunities to provide better flexibility for new customers to select connection arrangements that suit their needs.

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?

No comment.

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

No.

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

We do not consider that the issues have been sufficiently canvassed for change to be mandated. We are also concerned that the suggested "back stop provisions" would effectively become mandated approaches, and could lead to inequitable and inefficient outcomes for our customers.

We are concerned that this area of focus has been driven by a specific customer segment that is looking to connect new load – electric vehicle fast chargers. It may have come as some surprise that there are significant costs associated with connecting these very large loads, but this is not a good reason to react in haste. We also consider that we should be agnostic to the type of technology being connected – we should not be picking between home charging and centralised fast charging, and we should not discriminate between electrification of process heat and electrification of transport.

The Authority draws on a comparison of the ratio of EVs to public charging capacity in New Zealand and other countries to support its argument for reform. However, underlying differences between countries may explain some of the difference. In particular, New Zealand has a high proportion of homes that provide garaging or off-street parking which facilitates home charging of EVS. We also have off peak pricing plans where customers can charge EVs over-night for 9c/kWh whereas public fast chargers tend to cost around 80c/kWh (both incl GST). Anecdotally, observing a local fast charging depo at a service station, the vast majority of the time there are no vehicles charging at the three fast chargers that have been provided. For us, it is not surprising that we have a low penetration of public fast chargers.

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?

We would like to see more work done on how retailers pass through distribution pricing. If retailers are eliminating our pricing signals, and if competition between retailers does not drive them toward efficient reflection of distribution pricing structures, then there is little to be gained through a transition to more cost reflective prices. In the extreme, the higher transaction cost of more cost reflective pricing may bring about a burden that exceeds any benefits.

Other than through the few distributors that use GXP pricing approaches, we are not aware that deemed or residual profiles have any bearing on distribution charging.

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)?

Rather than *current* capacity constraints, our network faces *future* capacity constraints from home based electric vehicle charging. We have developed and are promoting voluntary uptake of TOU pricing plans that encourage and reward efficient charging behaviours. At this stage, mandating approaches would have impacts on a large number of customers that are not contributing to the issue, and without any storage loads, may not have an opportunity to respond.

Q26. Do you agree with the problem statement for retailer response? No. Although we agree that the use of deemed and residual profiles is an issue for energy billing (but this would not fall under the heading of distribution pricing reform). Currently most volume tariff approaches are tied to the registers that are physically configured within the meters at each premise. This creates a cost barrier for changing tariff options. We think it would be useful if retailers were able to instead use half-hour metering information to accumulate alternative tariff volumes allowing customers to switch between options without cost. Providing pricing incentives has an impact on customers. For those customers that are unable to respond, little is achieved in applying pricing that might penalise them for their behaviour (which may have been unchanged for a long period of time). Mandating the wide-spread use of specific pricing options with the aim of addressing what is currently a very small number of customers with solar generation or electric vehicles will result in undesirable impacts on our customers. We consider that efficient outcomes can be encouraged with more targeted pricing approaches and options.
Q27A. Do you have any comments on the Authority's preferred pricing? For the reasons noted above, we are opposed to mandating specific tariff options. 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?
Q28. Are there other options you think the Authority should consider for retailer response? No
Q29. Which if any of the above options do you consider would best support distribution pricing reform in the area of retailer response? As noted in 3A above, we don't think that "appliance tariffs" are a suitable solution for new storage loads, and nor do we think that our customers would accept mandated access to control their electric vehicle charging. In the current environment, we think that our pricing approaches need to be technology agnostic and allow customers (and their third-party agents) to coordinate a response to the pricing incentives that we provide. W are not sure that the Authority's suggestion that we should provide "anytime access to off-peak rates" would provide any useful outcome.