Requiring distributors to pay a rebate when consumers supply electricity at peak times Consultation paper

Submission from:

(Nu'uli'itia) Andrew Redwood

Q1. Do you agree with the problem

definition above? Why, why not?

No, I do not agree with the problem definition. As there are far greater problems with the designs of the wholesale market. Retail plans being offered (which the EA is already asking for submissions on). And the provision of generation capacity. These problems should be fixed first, before extra regulations are placed on lines companies.

As currently there is no requirement for retailers to pass through lines company price signals. Therefore any benefits are unlikely to reach consumers. And lines companies are forced to try and predict how their price signals are going to be repackaged by retailers, when setting their prices.

Q2. Do you agree with these principles?

Why, why not?

I do not agree. I repeat my above response. And also that any benefits would somewhat flow through to other parties. EG Transpower, generators, retailers. But those parties won't be required to contribute to the financial cost of making any payments to consumers for injection.

Q3. Do you agree that the principles

should only apply to mass-market

consumers, or should they apply to

larger consumers and generators also?

Why, why not?

I don't agree. I repeat my answers from Q1 and Q2.

Q4. Do you agree the principles should apply to all mass-market DG, including inflexible generation (noting that the amount of rebate provided will still be based on the benefit the DG provides)?

I don't agree. I repeat my answers from Q1 and Q2.

However I would like to add that even having a definition for Inflexible Vs flexible is problematic. As distributed generation without batteries can still have load control attached to it. EG EV chargers that vary charging speed based on solar production and / or other home loads. Tesla already offer this via their Gen 3 Wall connectors. And Wallbox and EVnex home chargers also offer this for non Tesla EVs.

Q5. Do you agree with the direction of the guidance that would likely accompany the principles? Why, why not?

The guidance doesn't appear to consider that lines companies have to also make network upgrades for reasons other than increases in peak demand. EG due to wires / equipment becoming old / unreliable / unsafe. Meaning replacement must occur regardless of peak demand. Therefore the extra cost to meet the peak demand is trivial. EG the price difference between purchasing a new transformer of larger capacity to the original Vs a new transformer of the same capacity as the original. As the cost of installation cannot be avoided.

Q6. Are there any additional issues with the principles where guidance would be particularly helpful?

I cannot find any mention of how these proposed changes are going to interlink with the phaseout of the electricity Low User Regulations. As the Low user regulations phaseout is itself going to cause changes to demand (which was the intent of the phaseout). Is the current timeline for the phaseout of the Low User Regulations going to remain unchanged? As that would create a compliance nightmare if Lines companies would have to face new regulations requiring payments for injection at the same time as still having to offer low user plans.

Since the low user plans were required to have a single 24 hour KWh rate, or otherwise Day / Night rates. Consumers on the low user plans had no incentive to reduce their peak demand. And retailers were not allowed to offer plans that would be cheaper than the low user plans for consumers who use less than 8000KWh per year. Which meant that a retailer was not allowed to offer a plan with a high peak tariff and a low off peak tariff. As it would be possible for a consumer to move most of their consumption to off peak, and therefore pay less overall than what they would have paid if they were on a low user plan.

When the low user plans are gone, all consumers will then have either a direct incentive to reduce their peak demand (due to being on a TOU plan). Or if they are still on a single rate plan, they will be indirectly paying for their peak demand via higher KWh rates. Some of that peak demand will be extremely cheap / easy for those consumers to reduce. EG an EV that gets plugged in after arriving home from work, can have it's charging timer enabled. So it will begin charging late at night, instead of during the evening demand peak.

As the benefit to the network of reducing peak demand via consumers using less power during peak times is the same as power being injected during peak times. Therefore all consumers need to first be fairly charged for their peak demand, before looking at if requiring distributors to pay for injection is the best option for managing remaining peak demand.

Q7. Do you agree the principles should be incorporated within the Code, rather than being voluntary principles outside the Code? Why, why not?

Agree that any principals should be incorporated in the code. As consumers cannot switch lines companies.

Q8. Do you agree with the proposed implementation timeline for this proposal? If not, please set out your preferred timeline and explain why that is preferable.

I agree with the proposed timeline, with the reservation that the Low User Regulations need to first be fully phased out. (refer to my answer in question 6). And consideration needs to be given to if lines companies own policies for making price changes are consistent with price changes driven by policy / law changes. EG Vector say that they try to avoid price changes that would result in a group of consumers having a greater than 10% increase in

their lines fees. Although that helps avoid bill shocks. It also means that certain consumer groups are going to be making investment decisions based on todays lines fees. Without knowing that there are large changes already mapped out.

No guidance has been given as to if the approach taken by Vector and likely by other lines companies of slowly making pricing structure changes Vs making those changes all at once is the correct approach or not.

Q9. Do you agree the proposal strikes the right balance between encouraging price-based flexibility and contracted flexibility? Why, why not?

Moot question. Since I don't think that the proposed changes should be made in the first place.

Q10. Do you agree the proposal will lead to relatively minor wealth transfers in the short term, and will lead to cost savings for all consumers in the longer term?

Agree that any wealth transfers in the short term would be minor. However these proposed changes create a big risk of large wealth transfers in the future. As there is an assumption that battery uptake will remain slow due to the cost of battery systems. But that fails to consider widespread uptake of EVs / PHEVs. And those EVs potentially being capable of exporting to the grid. If someone has already purchased an EV to avoid paying for petrol, then their marginal cost of using the battery in their EV to export to the grid would be trivial. As the capital cost of purchasing the EV is a sunk cost. And exporting to the grid at 5KW (max allowed on a single phase connection) puts less stress on the battery than driving at 100Km/hr. And some models of EV battery degrade based mainly due to age. Rather than due to the number of charge / discharge cycles. And price falls in new EV prices haven't been reflected yet in the pricing of home batteries. Implying that large decreases in the price of home batteries will soon occur.

Q11. Do you agree that more prescriptive requirements to provide rebates will be less workable than a principles-based approach, and therefore should not be preferred? Why, why not?

Moot question. Since I don't think that the proposed changes should be made in the first place.

Q12. Do you agree that a consumption-linked injection tariff would not be sufficiently targeted, and therefore should not be preferred? Why, why not?

Q13. If this approach was progressed, do you think:

a) injection rebates should perfectly mirror consumption charges?

b) there are sufficient safeguards in place that would allow distributors to avoid over-

incentivising injection to the extent that it incurs additional network costs?

A consumption linked tariff definitely won't be sufficiently targeted. As currently, lots of lines companies recover part of their fixed costs and / or variable costs that are independent of demand (EG repairs after natural disasters) via per KWh surcharges. Any consumption linked tariff would be ripe for manipulation. By lines companies, (via setting daily fees Vs KWh surcharges) Retailers (via design of their retail prices), and consumers (via deciding if they should export their generation and buy it back later, or directly consuming their generation).

As solar / battery hybrid inverters can easily be reprogramed to change their battery management protocols. EG if they should prioritize export or time shifting. Tesla Powerwalls already include Storm Watch. Which changes the control profile to keep the Powerwall full if bad weather that might increase the risk of power cuts is forecast.

Q14. Do you agree with the objective of the proposed amendment? If not, why not?

Since I don't agree that the proposed changes to lines companies are needed. I therefore don't agree with the proposed amendment.

Q15. Do you agree the benefits of the proposed amendment outweigh the costs?

I disagree. As the option of maintaining the status quo doesn't consider the low user regulations phaseout that is currently occurring. That limits the ability for lines companies to set cost reflective tariffs. Or proposed changes to retail pricing plans that the Electricity Authority is also consulting on. As those things will deliver the same benefits but without placing extra regulations on lines companies.

Q16. Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objectives in section 15 of the Electricity Industry Act 2010.

I disagree. I repeat my answer from question 15.

Q17. Do you have any comments on the drafting of the proposed amendment?

Leave the code as is, Instead of making the proposed changes.