ELECTRICITY PRICE REVIEW

SUBMISSION FORM

How to have your say

We are seeking submissions from the public and industry on our first report into the state of the electricity sector. The report contains a series of questions, which are listed in this form in the order in which they appear. You are free to answer some or all of them.

Where possible, please include evidence (such as facts, figures or relevant examples) to support your views. Please be sure to focus on the question asked and keep each answer short. There are also boxes for you to summarise your key points on Parts three, four and five of the report – we will use these when publishing a summary of responses. There are also boxes to briefly set out potential solutions to issues and concerns raised in the report, and one box at the end for you to include additional information not covered by the other questions.

We would prefer if you completed this form electronically. (The answer boxes will expand as you write.) You can print the form and write your responses. (In that case, expand the boxes before printing. If you still run out of room, continue your responses on an attached piece of paper, but be sure to label it so we know which question it relates to.)

We may contact you if we need to clarify any aspect of your submission.

Email your submission to energymarkets@mbie.govt.nz or post it to:

Electricity Price Review

Secretariat, Ministry of Business, Innovation and Employment

15 Stout Street

PO Box 1473

Wellington 6140

Contact details

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Use of information

We will use your feedback to help us prepare a report to the Government. This second report will recommend improvements to the structure and conduct of the sector, including to the regulatory framework.

We will publish all submissions in PDF form on the website of the Ministry of Business, Innovation and Employment (MBIE), except any material you identify as confidential or that we consider may be defamatory. By making a submission, we consider you have agreed to publication of your submission unless you clearly specify otherwise.

Release of information

Please indicate on the front of your submission whether it contains confidential information and mark the text accordingly. If your submission includes confidential information, please send us a separate public version of the submission.

Please be aware that all information in submissions is subject to the Official Information Act 1982. If we receive an official information request to release confidential parts of a submission, we will contact the submitter when responding to the request.

Private information

The Privacy Act 1993 establishes certain principles regarding the collection, use and disclosure of information about individuals by various agencies, including MBIE. Any personal information in your submission will be used solely to help develop policy advice for this review. Please clearly indicate in your submission whether you want your name to be excluded from any summary of submissions we may publish.

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Summary of questions

Part three: Consumers and prices

Consumer interests

1. *What are your views on the assessment of consumers' priorities?*

The report is loaded with the word "fairness". Even the relatively neutral Electricity Authority seemed to over use it.
What is fairness?

1. **That the price of lemons is the same in Invercargill as in Hawkes Bay?**
2. **That Hawkes Bay producers should pay to send lemons to Invercargill?**
3. **That the price of avocadoes goes up when they are in short supply?**
4. **That broccoli growers get paid almost nothing if all the broccoli matures at the same time?**
5. **That the price of petrol is the same in Haast as in Auckland?**
6. **That Auckland commuters should spend the same time commuting as those in Invercargill?**
7. **That all people regardless of income or assets should be able to get CAR-T cancer treatment?**
8. **That all people should pay the same taxes?**
9. **That it is colder in Invercargill than Whangarei?**

Fairness is not an absolute. Some would say that it is not possible to be fair to everyone. It is a balance between competing interests and competing measurements of those interests. It is a social construct that needs to be balanced by society and its leaders at any point in time.

My view is the governments can decide to support people with various forms of social welfare or tax relief, but they should not force a market to behave in a certain way. A government should not force Hawkes Bay lemon growers to sell cheap lemons in Invercargill. A South Island electricity producer should not be forced to sell cheap electricity in Northland.

Consumers always want cheaper prices and affordable chocolate, but if any good or service is affordable for everyone it will be grossly over consumed. A priority must be to give consumers and tenants the ability to use electricity more efficiently.

2. *What are your views on whether consumers have an effective voice in the electricity sector?*

I'm not sure that consumers should have an effective voice in the chocolate, banana or electricity markets. Why should consumers have a voice in all markets? All these markets need to operate honestly and efficiently, so that consumers can make choices about suppliers and amount consumed.

3. *What are your views on whether consumers trust the electricity sector to look after their interests?*

Prices

4. *What are your views on the assessment of the make-up of recent price changes?*

I think it is wrong to look at percentage changes. Instead we must put pricing in place to ensure an efficient system of generation, distribution and use so the overall cost is minimised. Prices changed because business was subsiding retail consumers. Business was paying a greater share of transmission and distribution costs than they were using.

The main difference is that businesses have a much better load factor (less peaky) so their share should be less. See response on distribution and transmission below. I believe that consumers should pay for the power capacity (kW) of the lines and not the energy (kWh) they take from the distribution system. The price changes have partly reflected this more to a fairer allocation of costs.

I would really like to see Figure 7 as c/kWh of monthly maximum demand. This would show and another view which would more honestly inform the debate.

5. *What are your views on the assessment of how electricity prices compare internationally?*

In many countries there are government subsidies, either direct or indirect. Comparisons should be made with care.

The rate of change of prices is not important; it is the absolute value of prices without subsidies that we should look at. But even then, what actions can we take to give Latvian residents a fairer price? I.e. so what?

6. *What are your views on the outlook for electricity prices?*

It is my view that energy prices are too low. We have a societal disconnect between the "right" to transport for transport, flying and heating, and CO_2 emissions causing global warming. By relying on solar energy stored as coal and oil over millions of, we are heading for massive global problems.

We need the prices of all forms of energy to be related in such a way that efficient, sustainable sources are used. Prices must be high enough to encourage new

sustainable generation that can replace coal and gas generation.

Affordability

7. *What are your views on the assessment of the size of the affordability problem?*

Consumers always want cheaper prices and affordable chocolate, but if any good or service is affordable for everyone it will be grossly over consumed.

The definition of affordable is different for everyone. Electricity could be affordable if governments supplied the capital to build more electricity supply than necessary. But capital for electricity generation comes from the international pool of capital for industrial and commercial projects. If governments subsidise capital costs they risk more capital being invested in electricity production than is required and hence the total cost to all of NZ through direct costs and subsidies will be higher than necessary. I.e. government intervention will just create an illusion of affordability.

If the cost of building generation facilities is high, the cost of electricity will be high. Governments cannot directly control the capital costs without direct subsidy.

If the electricity supply market is working well, those able to use the minimum amount of capital will have a financial advantage, and hence there is every incentive for the market to be capital efficient.

I hope that everyone at some stage has to cut back on heating. If we are always perfectly heated we are wasting energy.
It is when people become unwell because of insufficient heating that we need to worry, but I see this as a role for the Government who could implement direct support for those with demonstrated needs.

I question the view created in perhaps the last 50 years that it is a "human right" to live at temperatures between 18 and 25 degrees Celsius. Humans evolved in a much wider range of temperatures

8. *What are your views of the assessment of the causes of the affordability problem?*

The bottom axis is unlabelled so it is not clear if positive means a positive benefit.

I think the single most important thing we can do is promote energy efficiency. We need to have mechanisms to break down the investment barrier for efficiency.

The report did not address the lack of alignment of capital expenditure and operation expenditure in rental properties. A residential or commercial landlord must supply the capital required for energy efficiency but the tenant gets the operating savings.

In a market with an excess of buildings for rent, the market could easily price in the value of energy efficiency, e.g., well insulated houses with heat pumps would attract a higher rental. However the current shortage of housing means that the market is not so sensitive to energy efficiency.

The current government's approach to requiring minimum insulation standards seems appropriate. This could be extended to a minimum heat efficiency and lighting standard which require a minimum amount of heating by heat pump and use of efficient lights in rental properties.

An alternative is offered by Selwyn district council at present. They are offering low cost loans for selected energy efficiency projects. Thus capex is replaced by loan repayment. Thus the issue of affordability of solar panels (p65) need not be a problem.

Possibly, electricity retailers could be required to offer good value loans for efficiency improvements that can be paid back by electricity payment. For example a loan for a heat pump could be paid back at such a rate the same heating was achieved with the same electricity payment, and then once the loan was paid back the electricity price drops. This is potentially more difficult for rental properties.

9. *What are your views of the assessment of the outlook for the affordability problem?*

The introduction of electric vehicles must be done in such a way that peak hour charging is strongly discouraged. Flick Electric have pricing structures to ensure consumers get the correct pricing signals. Other companies must introduce similar incentives.

Summary of feedback on Part three

10 *Please summarise your key points on Part three.*

Fairness is not an absolute. Cheapness does not mean fairness.

Affordability is not a human right. If things are affordable for everyone they get wasted.

We need to promote efficiency, not cheap electricity. Efficiency will give lower costs throughout the system.

Solutions to issues and concerns raised in Part three

11 *Please* briefly describe any potential solutions to the issues and concerns raised in Part three.
We need strong incentives to ensure that owners or landlords put in energy efficient devices, especially heat pumps, but also low flow showers, insulation and LED lights. There need to be strong incentives for night time, rather than peak time, use of electricity

Part four: Industry

Generation

12 *What are your views on the assessment of generation sector performance?*

13 *What are your views of the assessment of barriers to competition in the generation sector?*

We have seen a range of small generation projects, e.g. Ngawha in the North or Pioneer Energy in the South. There don't seem to be barriers, except for wind as mentioned next.

The report is disappointingly silent on the shape of the marker as we approach 100% renewable electricity. At present when the lakes are full and the wind is blowing the price of electricity is unreasonably low. Only when there is enough thermal production of electricity does the price seem to be supported.

There will be times when we will need to spill wind, water or even solar electricity, but we do not want the market to fail. We want to be able to go into winter with full lakes but this risks spillage with autumn rains and equinoxal winds. Spillage should not be seen as bad, but rather as a sign that we have good storage and sufficient capacity.

During the winter of 2018, we saw electricity prices generally lower when the wind was blowing through the Manawatu. We have a good wind resource in NZ which is very effective to help keep the dams full, but not if the market takes such a short term (hours) view of pricing.

It is my view that there needs to be an effective minimum market price which I would guess would be about $40/MWh. I'm not sure the best way to achieve this. Even when there is a glut of bananas you don't expect them to have a wholesale price of close to zero.

Similarly the market does not seem to reward dry year capacity well. Here wind power has a disadvantage as it is not instantaneously reliable, but to does allow NZ to keep more water in the lakes. I'd like to see a way of supporting a reasonable but not excessive amount of excess capacity.

14	*What are your views on whether current arrangements will ensure sufficient new generation to meet demand?*

Retailing

15	*What are your views on the assessment of retail sector performance?*

16	*What are your views on the assessment of barriers to competition in retailing?*
	I see few barriers to retail marketing. Flick Electricity is a good example.

Vertical integration

17	*What are your views on the assessment of vertical integration and the contract market?*
	I understand that the contract market is working well enough. But we must ensure continued exposure to supply and demand through the spot market or a similar mechanism, so that all consumers get appropriate pricing signals.

18	*What are your views on the assessment of generators' and retailers' profits?*

Sustainable companies must make profits. A healthy market ensures profits are not excessive.

Transmission

19 *What are your views on the process, timing and fairness aspects of the transmission pricing methodology?*

I am a strong supporter of a user paying transport costs, be it for lemons from Hawkes Bay to Invercargill, bananas from Equador to NZ, or electricity from Manapouri to Auckland.

We need strong signals for electricity intensive industry to be built close to sources to avoid losses.

I see this as simple in that when considering the shortest distance from generation to users, Transpower could calculate a kWh.km charge. This could incorporate the cost of lines losses. Over a typical year they could use linear programming or another technique to calculate the total kWh.km and hence they could set a charge in $/kWh.km for transmission. The charge might be reviewed each year if supply and demand patterns change. It would include different components for different lines and the HVDC link. This would make them very similar to freight companies who charge per kg.km.

The high cost of transmission to Northland has been seen as unfair. But it would be quite unfair if the new geothermal generation in Ngawha in Northland did not significantly reduce the transmission costs for the consumers in Northland. If we apply a fairness argument, the Northland consumers would share the national costs of transmission, and even Winston Peters might argue that this is unfair once Northland has sufficient generation of its own.

p49. While EVs will add to consumption, there is no reason for them to add to the peak load. This is very manageable with appropriate pricing.

Distribution

20 *What are your views on the assessment of distributors' profits?*

21 *What are your views on the assessment of barriers to greater efficiency for distributors?*

"The current flat pricing structure fails..." I absolutely agree. I would like flat pricing to be strongly discouraged. The pricing doesn't need to fully reflect all of the costs, but as least some proportion does.

22 *What are your views on the assessment of the allocation of distribution costs?*

I strongly support allocation of distribution costs to be based on maximum demand (kW) to some extent. Distribution based on energy (kWh) usage causes distortions and is unfair because the average price is higher than necessary.

The problem of consumers wanting the ability to be supplied at any time, but not consuming much energy is well outlined in the report.

I see a simple solution being the extension of maximum demand payments to all users. Consumers should pay for their maximum demand, perhaps within the peak consumption times, in a given period. The period could be a month, quarter or year, perhaps with the ability to reset the maximum is some circumstances.

We know that the cost of distribution is closely related to the total maximum demand of all consumers. As stated in the report about 50% of the cost is directly related to maximum demand. The cost of distribution should reflect this.

If someone installs PVs, but still uses a connection to a distribution system for heating, lighting and cooking at 6 pm, then they should pay for the power (kW) capability, not just their energy use (kWh).

I would be very happy for all of my distribution costs to be paid this way, though an analysis on the impact on a range of users would be required first.

23 *What are your views on the assessment of challenges facing electricity distribution?*

I have found that electrical engineers are excessively pessimistic about network stability. We have several examples throughput the world now of large scale solar and wind generation that are managed. The management is more active than for a hydro based supply, but certainly not impossible.

I suspect that companies will soon realise that they are in the business of facilitating energy and not in the transfer of electrons from dams to households. With a different focus they can apply many of the solutions that are technically possible.

Summary of feedback on Part four

24 *Please summarise your key points on Part four.*
Generation, transmission and generation costs must be related to real costs with appropriate price signals to consumers.

Solutions to issues and concerns raised in Part four

25 Please briefly describe any potential solutions to the issues and concerns raised in Part four.
Move more to prices based on power (kW) capacity for transmission and distribution so that consumers have real incentives to reduce peak demand.

Part five: Technology and regulation

Technology

26 *What are your views on the assessment of the impact of technology on consumers and the electricity industry?*

p63 "Being produced at its source ... has significantly lower emissions ..." Be careful with statements like this. While lines losses are significant, the greatest source of inefficiency is thermal generation. The Enefarm system is probably more efficient because it is a combined heat and power system. However doing this on a small scale can have excessive losses.

p64 "Widespread use of EVs ... will create shifting, unpredictable demand". I think this is quite wrong. The demand will be more predictable than demand changes due to weather.

27 *What are you views on the assessment of the impact of technology on pricing mechanisms and the fairness of prices?*

It is my view that when there is a shortage of tomatoes consumers should get a price signal and hence adjust their buying. In contrast, most pricing systems (as used for electricity) allow consumers to set an annual price for tomatoes and buy them at that price all year.

I think that practically all consumers should be exposed to changing costs of electricity. While the initial impact might be harsh for some, it would encourage a new efficiency industry, where specialists advise and install power saving systems, such as hot water heater timers, heat pumps, low flow shower heads and more.

It would also strongly incentivise the charging of electric vehicles at off-peak times. In this regard p 65 of the report is very good.

The report did not address the lack of alignment of capital expenditure and operation expenditure in rental properties. A residential or commercial landlord must supply the capital required for energy efficiency but the tenant gets the operating savings.

In a market with an excess of buildings for rent, the market could easily price in the value of energy efficiency, e.g., well insulated houses with heat pumps would attract a higher rental. However the current shortage of housing means that the market is not so sensitive to energy efficiency.

The current government's approach to requiring minimum insulation standards seems appropriate. This could be extended to a minimum heat efficiency and lighting standard which require a minimum amount of heating by heat pump and use of efficient lights in rental properties.

An alternative is offered by Selwyn district council at present. They are offering low cost loans for selected energy efficiency projects. Thus capex is replaced by loan repayment. Thus the issue of affordability of solar panels (p65) need not be a problem.

Possibly electricity retailers could be required to offer good value loans for efficiency improvements that can be paid back by electricity payment. For example a loan for a heat pump could be paid back at such a rate the same heating was achieved with the same electricity payment, and then once the loan was paid back the electricity price drops. This is potentially more difficult for rental properties.

28 *What are your views on how emerging technology will affect security of supply, resilience and prices?*

Fig 28 is unclear. The text refers to 2 GW. Is this a maximum of 1 GW generated from 2 GW of panels?

p68 Transpower found that solar power won't help the winter peak. However it should help by ensuring that we always go into winter with our hydro batteries (lakes) full.

Regulation

29 *What are your views on the assessment of the place of environmental sustainability and fairness in the regulatory system?*

Is it fair that we support ongoing energy inefficiency through poor insulation or inefficient heaters? I don't think it is fair on all of us, or on the environment.

In cases of hardship I hope we can "give the man a fishing rod, not fish", i.e., give people a heat pump, not cash to continue using an inefficient heater.

30 *What are your views on the assessment of low fixed charge tariff regulations?*

p75 states that low fixed charge tariffs were intended to help low income families. My memory of this (I remember it well) was that it was to encourage greater energy efficiency. When the fixed charge made up too much of the bill, there was little incentive to reduce consumption.

31	*What are your views on the assessment of gaps or overlaps between the regulators?*

32	*What are your views on the assessment of whether the regulatory framework and regulators' workplans enable new technologies and business models to emerge?*

33	*What are your views on the assessment of other matters for the regulatory framework?*

Summary of feedback on Part five

34 *Please summarise your key points on Part five.*

Solutions to issues and concerns raised in Part five

35 *Please briefly describe any potential solutions to the issues and concerns raised in Part five.*

Additional information

36 *Please briefly provide any additional information or comment you would like to include in your submission.*

Factual information in the report
p10. It states that consumptions in measured in kilowatts used per hour. This in incorrect. It would be better to state "consumption is measured in kilowatt hours.

Figures. Please make sure graphs have tick marks (eg Fig 13, 14) so the dates are clear.

p63. It is arguable that the life time cost of electric vehicles is already less than petrol vehicles in 2018.

p67 73 TWh "per year" I hope

Loose statements
The report would be better with few loose or unsupported statements

p12, 58, 63 "5ome commentators", "Some say", "Some predict". This type of phrase is used a lot. It can just be a way of getting an unsubstantiated opinion into the report and should be backed up by references.

p12 "impose huge demands". This is not true. Moving to passenger EVs causes only an increase of about 20% in demand. Yes there may be other transitions, but it is not "huge".

p13. "and we are watching them closely". Who are we and so what?

p31 Of course companies are going to "build those types of station that produce electricity at the lowest cost per unit first". Since the disestablishment of NZED, such decisions have been firmly based on cost.

p61 "a skills shortage is possible if the training of such people does not keep pace." What a meaningless statement. Let's be more direct.