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ECO SUBMISSION TO THE ELECTRICITY AUTHORITY ON ENSURING AN ORDERLY THERMAL TRANSITION

Introduction to ECO

ECO is a national organisation of organisations in Aotearoa/NZ with a shared concern for and commitment to the environment, conservation and sustainability. We respect te Tiriti o Waitangi and wish to see that is honoured. ECO supports social justice and recognition of the importance of maintain Earth systems and ecosystem approaches.

We have a long-standing interest and engagement with Aotearoa's energy policy, transport issues and climate change. Our membership is diverse and contains a wide and deep range of expertise. We also have recourse to a range of experts outside ECO and have received advice from several people in relation to this issue for this submission.

On the issue of an Orderly Thermal Transition - some key points.

ECO has specific policies also on achieving a just transition to a low carbon future for New Zealand and for a speedy transition out of the use of fossil fuels.

URGENCY: In the light of the recent IPCC AR6 report, we applaud any moves for a rapid just transition and we also agree that an orderly transition is highly desirable. We do not however think that this should be achieved by means of maintaining gas or coal or other fossil fuel use.

As such we find the limitations of the scope of the discussion paper, and the refusal to examine gas and aspects that surround the operation of the electricity market, to be too narrow and siloed.

ECO considers that the Electricity Authority's legislation and scope of consideration to be far too restricted and it is very lop-sided toward the market participants, especially suppliers, and particularly emphasis on the gentailers. It is a major deficiency and weakness that the Electricity Act places consumer interests and concerns not as a prime consideration but as an "also ran" in Section 15 of that Act.

We had hoped and expected that the Orderly Transition paper would include explicit consideration of both the environment and greenhouse gas emissions in its discussion, but we see little about that. Given however the paper and the Act have a heavy emphasis on efficiency, we consider that efficiency of inclusion of the environmental costs and benefits must be part of the criteria for judging and achieving the orderly transition. This aspect should be clearly articulated but we did not see that. We strongly recommend that this aspect needs far more attention and articulation in the proposals.

The paper would in our view have been much more easily understood and critiqued if it contained more detail and graphing of the expected long term v short term demand and supply schedules and how they are expected to shift, along with more information about the production and consumption functions, and how the price, income and substitution effects are expected to shift in various scenarios.

We looked in vain for clarity and discussion about market structures and market power, how the intramarginal rents are captured and by whom, and what strategic market behaviour has occurred and how this should be managed.

We were very disappointed that there is little discussion of issues such as regulations and measures to achieve resilience such as through distributed electricity production through small and localised renewable supply and demand management, particularly demand reduction.

We are concerned that the Electricity Authority (EA) has not opened its distribution price consultation to the public.

In the sections below, we commented on your strategic ambitions and your priorities (from your website), and wish to see some broader considerations in your framing of the issues that you address. Some of these considerations that we would like to see better consideration given to include:

- Full cost pricing;
- Issues of justice to the future and to the disadvantaged people here now;
- Market structure and regulations to prevent price gouging of consumers;
- Measures to accelerate uptake of genuine renewables and improved energy efficiency to shrink demand;
- A recognition that movement away from all fossil fuels in very short order, and more quickly than the government has committed to so far, is essential in view of not only

the AR6 report but also the critiques of that which suggest that the IPCC's Report is yet again based on substantially conservative analysis and data.

Taking the information you present, you say:

[EA's] strategic ambitions

Your strategic ambitions are agreed with the sector. They're ambitious to match the fast pace of change in the sector and help innovation flourish: [\[But who in the sector? Only the supply side?\]](#)

- We want **consumer centricity** to guide regulation and the industry [\[ECO's view is that consumers should certainly been one of the key considerations, but given the state of climate shifts and the destruction that causes, the environment – particularly Earth systems - and the future should be central.\]](#)
- We want **low-emissions energy** to electrify the economy. [\[Agreed, but we need to aim for gross zero emissions and that this should be much sooner than the 2050 Paris Agreement goal.\]](#)
- We want to build **trust and confidence** in the industry for all stakeholders. [\[So long as this trust is compatible with the first two of these and is based on full information about performance and GHG emissions reductions not marketing and P.R. At present the Electricity Authority is not trusted to look after the interests of consumers, consumers who also generate power, and those who want to be or already are off-grid. The EA has long been accused of allowing super profits, strategic supply with-holding to maximise prices, favouritism to gentailers and maintenance of electricity market distortions in favour of large suppliers.\]](#)
- We want to see **thriving competition** delivering better outcomes for New Zealanders. [\[Thriving competition needs to be based on full cost pricing with environmental harms priced in and without super profits. Thriving competition must thus be within regulated limits and with the prevention of market power being used in oligopolistic and oligopsonistic ways such that consumers are not price-gouged, substitution to off-grid and other distributed renewable and resilient electricity is encouraged, demand reduction is rapidly achieved, and substitution of passive solar and insulation and other demand reduction is quickly achieved. It is not economically efficient to allow super profits \(in the economic sense\) or the use of market power, planning sleights of hand, undervaluing of sales to the grid of consumer-generated electricity, and other such practices.\]](#)
- We want to see **innovation flourishing**. [\[Yes, we agree and much of this innovation can be achieved by it being regulation-led as well as being generated by competition within social and environmental constraints. Government and retailers can help with smoothing the costs of adoption and installation of innovation and with lowering information costs to consumers.\]](#)

See our [Statement of Intent 2021/25](#) for how we will achieve our strategic ambitions and our [Annual Corporate Plan 2023/24](#) for our planned activities against our strategic ambitions.

Your priorities

You say:

“New Zealand has committed to transition to net zero greenhouse gas emissions by 2050. The government has committed to reaching net zero for long-lived gases by 2050, set a target that 50% of total energy consumption will come from renewable sources by 2035, and has an aspirational target of 100% renewable electricity by 2030.”

“To achieve these targets, Aotearoa will require large quantities of new renewable electricity generation, increased use of distributed energy resources, new ways to participate and more participants. It will change the dynamics of the electricity system and markets.”

“It's our priority to ensure that the low-emissions transition is as efficient as possible while maintaining energy security, system adaptability, and affordability for all New Zealanders. Our priorities are:”

- **“Available low-carbon electricity** that makes the most of renewable resources. Consumers have more opportunity to participate in the generation of electricity, and New Zealand is powered by electricity that benefits us and protects our environment.
- **Accessible electricity** that supports the uptake of new technology and diverse electricity use. Consumers have access to reliable electricity across Aotearoa and feel empowered to invest in new technology.
- **Affordable electricity** that is underpinned by a competitive market. Consumers understand how to make the most of their electricity use and know how to get the best price deal appropriate to their needs.
- **Ample and reliable electricity** that provides trust and confidence in security of supply. Consumers have confidence in the supply of electricity in New Zealand through reliable and responsive generation.”

ECO wants to see commitments here to:

A rapid phase out and termination of all fossil fuel use;

An effective programme to encourage reduction of demand, increased efficiency of use, and easily understood and used peak load reduction;

Promotion of substitutes to reduce demand for electricity such as passive solar heating, real time information to consumers, load shifting and much more. Your priorities do not seem to be clear on these objectives.

Affordable electricity is of course desirable, but for some people, energy saving and income support is a better option and provides much more resilience.

We applaud the idea distributed generation, and some of those who participated in writing this submission have personal experience of the frailties of the power grid and the risks to lines and communities and specific houses connected to them. High winds and cyclonic rain caused arcing of lines, arcing at the power poles, total loss of supply as numerous trees fell on the lines or toppled the poles. These events left communities and homes completely without power, in many cases for days, and in one case caused so much surging that all the electronics and even appliances such as deep freezers, fridges, rural pumps, ovens and routers were wrecked. Houses on stand-alone solar systems were largely unaffected and much more resilient.

Some of us are old enough to have experienced ripple control. We imagine that this can be done better than it was in the 1950s-60s. Those who lived in large families with hot water needs to get the whole family washed can recall the anguished cries when the hot water suddenly ran out. Design and technology to save and smooth supply loads are needed, but as far as possible should be organised to deprive those who can best cope with periodic shut-offs.

Submissions on EA's questions:

Question 1

Do you agree with the desired outcome as described? If not, what do you think is the desired outcome in respect of thermal generation during the transition?

Response

ECO agrees that there is a need to consider the orderly thermal transition, and we agree that it is important initially to retain some thermal generation plant. But the real challenge is for demand reduction, resilience measures and for substitution of electricity production from fossil fuels with demand reduction and truly renewable alternative sources of generation.

As one of our contributors to our analysis put it: **The issue for the Authority is not 'getting out of thermal' – it's how to avoid or delay getting out of thermal as much as possible."**

The paper fails to consider justice in transition and also omits consideration of the environment. These are important considerations for any transition, and yet these risks are barely mentioned. There is a reference to the environment but that consideration barely gets mentioned in most of the paper.

Efficient outcomes is one part of the "right" level, but other parts of "right" include pricing that correctly equates full marginal costs with full marginal benefits including environmental costs and benefits, considers justice in transition, adopts constraints and regulations to protect the values not captured by or fully reflected in the market, and corrects market structures and conditions to remove super profits (in the economic rather than financial sense).

The transition risks discussion should include the risks for workers and employees and the need for them to be assisted to transition into renewable energy installation, demand reduction, insulation, and other employment. There is little attention in the paper to this aspect of transition risk.

Re your paragraph 4.3, the concern seems only to be with the electricity suppliers and consumers. There is no consideration of the environmental harms done, the damage to NZ's reputation with consumers abroad, or to the further profound alienation of the people who used to be in a future generation but now are part of a thoroughly disgusted, accusatory and depressed group. They rightly fear for their futures and condemn the continued use of fossil fuels. So actually do many others. This disillusioned group who are youth and older now, will grow in numbers, intensity of desperation and may well withhold cooperation in society on account of the harms we have done.

The fossil fuels used in production of electricity that is then used to dry milk and to produce a myriad of New Zealand's products, will taint those products in a way that will be very hard to counter if continued, but more fundamentally, the harm from fossil fuels is so profound that disruption of supply during the transition is far less of a concern than the physical impacts of using fossil fuels.

We consider that the paper should consider substitutes and should address the issue of fast phase out of ALL fossil fuels including gas.

Our experience of Industry Transition Plans is that these have been developed with an MBIE template that includes industry, officials, possibly some others such as unions, but most of civil society outside of business is excluded. The Plans are largely unhelpful, retrograde, undemocratic and simply serve to provide an inside running for industry to try to extract subsidies and favourable treatment, usually to perpetuate special deals at the expense of the public. We thus put little weight on their value to any but the special interests.

We stress the need also for resilience and for rapid reduction of the use of fossil fuels. We consider that the paper gives insufficient attention to demand side measures and support for consumers rather than seemingly just support for investors and suppliers.

We oppose any perpetuation of or fictions that gas is a transitional fuel for electricity or any other energy source. Coal is worse, but none of the fossil fuels is acceptable.

Question 2

Are there any other aspects of thermal transition risks that should be considered by the Authority?

Response

Yes. To the extent that the government supports and perpetuates gas, and especially investment in gas production and use, this will crowd out and delay substitution to renewables, substitution from energy generation to demand reduction and passive energy design.

The risks to communities and people on low incomes is also not well considered or articulated. Neither is the risk to the environment.

There is no discussion of the impact on employees.

Despite the declaration of the focus of EA being “consumer centric” the actual focus seems to be primarily on the fossil fuel supply side and on investors. This should be refocused with climate and environmental systems impacts the first priority and then to policies that promote a very rapid exit from fossil fuels. That is not achieved in this paper.

Question 3

Do you agree with the above expectation of the likely role of thermal generation throughout the transition? If not, what is your view and reasoning?

Response

Overall, we have a significant concern that the objectives laid out in the opening sections of the paper for abundant electricity is in essence misleading, given the existing and accelerating energy and ecological overshoot on our planet. Our understanding of the work by energy analysts is that the energy crunch is upon us. Of even greater concern, the overshoot of the receiving capacity of the planet is by far the most pressing issue and climate and other Earth systems are severely overstressed and tipping rapidly into a frequently unliveable world. Biodiversity is being very severely affected and irreversible harm will accelerate if we continue to allow fossil fuels.

The EA paper seems sluggish in its approach to the threats to the planet and its biodiversity. We ask for a much greater sense of urgency from officials, industry, politicians and all involved.

We certainly hope that thermal electricity generation will drop fast, and that there will be a role for thermal power generation only as a very short term back-up: we and the planet cannot wait until 2030.

We consider that the phase-down and out should be much faster than portrayed. As long as there is an expectation of government subsidies of, investment in, or tolerance of fossil fuel burning, there will be a dampening effect on transition to truly renewable low emission electricity and on effective demand reduction measures and design and their implementation. There is an important function of government to lower expectations of energy use in the light of the necessary end to the use of fossil fuels.

In our view the paper is misdirected in that it seems alarmed by the idea that there will be a phase down and out of thermal generation, whereas we want to see it gone as quickly as possible to allow for other options less damaging options.

As one of our contributors put it:” **there is no political will to change the wholesale market structure and governance arrangements. Absent that, gentailer profit levels will continue not to be effectively disciplined. The pricing impacts of that [market] structure [will continue when] gentailers have the ability to price thermal at the margin.**

We were surprised to see little discussion of investment in demand reduction, temporary or permanent, except in relation to ripple control and apparent approval of measures to keep ordinary consumers in a position of paying high prices and bearing the brunt of peak

smoothing when necessary. The EA has a role in demand reduction in concert with work undertaken by EECA.

We recommend that there should be serious attention given to very large electricity demand sources, such as the Tiwai point smelter. We have heard for years the Rio Tinto arguments for leaving and the arguments that it uses to negotiate the down the price. Should it be phased down? It uses hydro, but that electricity could be used elsewhere, cables and geography of demand permitting.

One option would be to require the smelter to pay much higher prices when the electricity is needed elsewhere – but for years the smelter has paid much lower rates than other consumers on the grounds of its baseload. Would such a pricing provision then induce innovation to make aluminium production more easily adjustable so that its massive base load requirements can be a bit more flexible and available to others? Or will it once more threaten to leave and to sacrifice its workers who would have to re-start their lives. The good news about that issue is that renewable energy provides jobs where people live and/or where the water, sun or whatever is. Retrofitting buildings and installing solar energy systems employ people where houses and other buildings are , which is ultimately much more efficient than employing people long ways from where they live.

We appreciate the discussion of which larger generating plants can fire up quickly or more slowly. We note the suggestion of government contracts to keep thermal plants available for dry years or very cold snaps, but any such “back-stop” plant will dampen innovation and dampen both the incentives for renewables investment, for energy efficiency investment and for demand management.

The discussion in Part 3 of the paper has a very strong emphasis on maintaining fossil fuel options, but we consider this is misdirected. Investment should be into demand reduction and renewables, and not into further fossil fuel use.

Paras 3.6 – 3.7 stand out for their suggestion that the coal fired units might find it difficult to stay viable, but that gas could be maintained. 3.6.c and 3.7 appear to us to be an attempt to push for subsidies to the thermal generators as their strangle hold on the market is eroded by alternatives and declining prices.

We note that the Concept analysis suggests that investment into new thermal generation will not be economically beneficial up to 2032, on the basis of public information. We consider that efforts and investment should be directed to rapidly phasing down and eliminating fossil fuel burning. Instead, energy efficiency should be the focus and regulatory standards such as performance standards, incentives for consumers to modify their demand and the timing of demand should be adopted.

Question 4

What (if any) improvements could be made to information to aid decision-makers in relation to thermal transition risk?

Response

The most important omission from the discussion is the much greater understanding of urgency that we have from the IPCC's AR6 and the increases in knowledge about the damage of fossil fuel burning to the planet, Earth systems and the losses of biodiversity.

Increases in efficiency of renewables and drops in costs are significant and helpful, contrary to the attitude reflected in the paper.

Markets do of course need good information and governments too need to know how far they are being taken for a ride. Regulators need to have strong minded commitments to the citizenry and to avoid becoming captured by the industry that they are set up to regulate. The structure of the EA and its subsidiary bodies has long been a cause of concern for those who want to avoid market power abuse and industry capture of regulators and regulations.

We appreciate the recognition in 4.19 that prices can be manipulated via market power and strategic behaviour that does not reflect the physical fundamentals of weather and other conditions, as appears to have happened when water was spilled on dams rather than used for generation. This however seems like some other paragraphs to have been inserted but does not seem to actually condition most of the discussion or the focus of the discussion about maintaining rather than retiring thermal generation.

One of the areas of information that regulators need, is to understand the profits being made so that they can contain the oligarchical behaviour of the big players. The EA has shown little concern or interest in these matters despite that being the original purpose of the EA.

Consumers and citizens need to know that the regulators are regulating in the public good and are not dominated by the industry they are set to regulate. At present there is no such assurance and the discussion paper at times reads as though the thermal generators and their profits is the main thing of concern to EA. Although the problem is couched as being in terms of certainty of supply, it does not seem from the discussion that that is the main issue.

Question 5

Are there any aspects in current spot market arrangements that are likely to undermine incentives to make efficient decisions in relation to back-up resources? If so, what are they?

Response

We find it particularly concerning that the paper does not address the meaning of "efficiency".

Achieving marginal cost = price = marginal revenue will NOT be efficient in a situation that either omits environmental and other costs, or if there is oligopolistic or oligopsonistic pricing. Both the latter occur in the electricity market.

Market prices do not capture all the elements of true costs, they do not reflect environmental harms, nor do the private discount rates capture the public concerns about whether market

decisions are appropriate to effects on the future people or the citizens who are limited in their incomes or choices. Employment effects are also seemingly disregarded.

We understand that pricing for long term investment – or retirement of big chunky capital equipment, is intrinsically difficult and with many factors to consider and a multitude of possible scenarios and unknowns.

Given the profound severity of climate destabilisation of climate and the social, environmental and economic effects of this, it strikes us as absolutely vital that fossil fuels must promptly be phased out, (along with other long-lived gases) and that the hugely potent pfc's and methane are also tackled.

We urge that the EA set this imperative as its highest priority and not to set up systems for contracts and other arrangements to maintain fossil fuel electricity generation. Annoying as brown outs and power cuts may be, they are better than doing more severe damage to the environment and the future.

We wish EA to do its level best to avoid any arrangements that will perpetuate fossil fuel burning. EA has agency here to help to downshift NZ's emissions – we urge you to give that priority.

Question 6

Do current arrangements provide balanced incentives to conclude forward contracts to manage thermal risks of transition appropriately? If not, what are the reasons for your view?

Response

We do not understand exactly what you mean by “balanced incentives to conclude forward contracts”.

We reject the position that the paper seems to be taking that reductions in burning fossil fuels is a problem because of the fall in demand for the electricity industry big thermal generators.

As one of our advisors remarked: “Paragraph 4.33 speaks volumes. Ditto 4.55-4.38. The whole thing is a sustained argument for high prices and fat profits while keeping the politicians' noses out....” We tend to agree with this critic and we also find the lack of attention to forward contract specification for renewables and for energy saving and efficiency to make the analysis in the paper excessively focussed on fossil fuel supply side solutions. Options to diminish demand by substitution, passive energy sources, distributed electricity and prosumers are given far too little attention.

We are concerned that the section on The Availability of forward Contracts in the paper is so much only focussed on maintaining supply but not on substitution or efficiency. The paper is so focussed on investors and production but not on workers and the environment, that the paper is seemingly blind to other risks.

Question 7

Do current arrangements ensure reasonable availability of forward contracts related to back-up services – such as dry year cover? Please explain your reasoning.

Response

In s6 and in section 7 on Forward contracting Incentives, we agree that there will be greater volatility in spot prices, but we reject the idea that the goal should be to maintain thermal power provision via forward contracts rather than retiring it and allowing alternative sources of electricity and of demand management and reduction to provide the signals to the market.

Re you point in 4.38, it is vital that there is full disclosure to the Authority – but it is also vital that the Authority draw back and look much more carefully at the major imperatives and not simply attend to fossil fuel generator interests.

Thermal Transition Risks

Question 8

To what extent do current arrangements create potential for misaligned incentives between retailers and consumers in relation forward contracting with adverse impacts on thermal transition risk? Please explain your reasoning.

Response

Current arrangements appear to provide for cartel-ish market power and the EA's paper underscores its disposition to consider perpetuating fossil fuels under guise of avoiding supply interruptions.

Question 9

To what extent do current arrangements relating to use of ripple control in periods of tight supply affect thermal transition risk? Please explain your reasoning.

Response

Re 4.41-4.5, There is an issue here about market structure and power. Small retail level consumers operating in a restricted market and facing oligopolies, will not necessarily have the purported option of paying what they are willing to pay, given that in the short to medium term they have price inelastic demand. The goal should be that the market is diversified as much as possible and energy saving costs should be lowered, made more feasible with options for self-generation and the installation of solar systems, passive solar, links for existing and new batteries such as in cars, and switching to deep cycle lead-carbon and other such alternatives is made easy for consumers to either exit the grid or feed into the grid, depending on circumstances.

As one of our contributors said: "Paragraph 4.45 implicitly says that small consumers need to be forced to pay more for their own good because they unreasonably expect reliable supply. At the same time paragraphs 4.46-4.51 invite distributors to make big profits from their ability unilaterally to shut down consumers' hot water. There's no clear linkage between the two, which means that consumers lose agency on both fronts. No prosumers exist in the Authority's mindset... And of course there's a firm "not recommended" on p.34 and in paras 5.31-5.35 when the possibility is mentioned of actually compensating consumers for getting cut off..."

In principle ECO is open to arrangements for load shifting and smoothing and giving consumers to the opportunity to accept ripple control and be compensated for that. With modern technologies there must be capability to provide options to business and retail consumers to accept more supply disruption risk or less, or to provide that some specific times of day should not be subject to interruption.

Question 10

Do you agree with the Authority's view above that lumpiness does not (at present) threaten to disrupt an orderly thermal transition? If so, or if not, please explain your reasoning.

Response

ECO agrees with your point 4.63 about thermal plant not being the only source of back-up services, and that dedicated renewables, batteries and storage, and demand management will be of growing importance. We had hoped that the paper would give far more attention to these issues than it does. We are concerned that the effect of depressing the prices for thermal electricity seems to be being treated as a problem rather than a solution. Sure, it does depress the prices and intramarginal rents from high spot prices, but that is actually what we need to bolster alternatives to thermal electricity and to help give the planet some chance of having a reduced rate of damage.

Question 11

To what extent are there any selective support mechanisms paid outside the wholesale market which could pose a challenge to achieving an efficient thermal transition? Please explain your reasoning.

Response

We cannot answer the matter of fact, but we can address the issues in this section.

To again quote one of our contributors: "Paragraphs 4.67-4.70 insist that if a feed-in tariff or similar is introduced, then taxpayers should compensate Huntly for its lost revenues as renewables uptake accelerates. While also forcing all renewable generation to go through the wholesale market instead of confronting the cartel suppliers head-to-head at local level. Distributed generation is not to be allowed, on "efficiency" grounds...."

Question 12

To what extent is thermal generation providing a service that is needed but not explicitly priced and rewarded? Please explain your reasoning.

Response

An issue not considered by the paper is the effect of continued thermal generation in crowding out investments in energy saving, switching to non-fossil fuel generation, distributed generation etc.

"Paragraphs 4.71-4.74 seem to be designed to create a worry to justify another subsidy to big thermal – "inertia" as an ancillary service."

Question 13

To what extent will thermal retirement/investment decisions be driven by non-financial factors? Please explain your reasoning.

Response

ECO hopes that there is a very strong response to the warnings of scientists and the overwhelming evidence of the planetary, social and economic impacts of greenhouse gas emissions. Alarming hat does not seem to be reflected in the EA paper.

As our analyst put it: “Paragraphs 4.75-4.78 then worry that owners of thermal plant might suddenly get green consciousness and be in too much hurry to shut down. So of course we’ll have to pay them to salve their consciences while continuing to burn coal and gas....”

“Paragraph 5.79 reminds us approvingly of the cartel’s success in shutting down the Whirinaki reserve when it threatened their profits back in 2008.”

Question 14

What (if any) other factors could undermine an efficient thermal transition? Please explain your reasoning.

Response

We consider that vested interests, lack of political will as governments come under pressure from vested interests and market arrangements and blockages to decentralisation are the chief factors that will inhibit the transition. The EA needs to shift its focus from protecting fossil fuel generation and market structure to enabling rapid exits from fossil fuel use.

We note the point in 5.2 that there are low risks of investment related thermal transition risk.

Thermal Transition Risk

Question 15

What (if any) other evaluation criteria should be considered? Please explain your reasoning.

Response

ECO welcomes moves to ensure that the wholesale market is reviewed, and that it is redesigned to foster renewables. We request that you ADD demand reduction, distributed and consumer-based generation as well as rapid phase out of fossil fuels.

Re paras 5.5 and 5.6 we stress that the environment and the interests of citizens, now and in the future must be key criteria for assessment of options. Consumers may not always behave in society’s interest, and there is plenty of literature about how people make different decisions as citizens than if they are placed within the framework of being consumers. The common good tends to get marginalised if decisions are framed simply within markets.

The acknowledgement in para 5.5 of the decarbonisation goals is welcome but too limited. This should be **to ensure** that decarbonisation is achieved to a greater extent and a greater speed than is yet committed to.

On your criteria in 5.6,

These criteria are mostly valid but are not enough and are not the most important.

Achieving rapid deep cuts and the total phase-out of fossil fuel thermal electricity is by far the most important goal.

The interests of society at large, and consumers should be ranked in that order.

The unintended side effects should be minimised, but should not be equated with investment to retain thermal fossil fuel generation. Thus we recommend that 5.6.c be qualified to exclude maintaining fossil fuel-based electricity generation.

We are unsure where the criterion 5.6.e comes from and we reject it completely. It says: *(e) "Align with the aim of transitioning to 100% renewables, including the target for 50% renewable energy."*

All energy must be renewable and all fossil fuels must be phased out much faster than Aotearoa has already planned.

We consider the criteria should include elimination of cartel-ish behaviour; that measures to smooth the affordability of and implementation of generation by consumers and other localised systems, innovation and implementation with new disruptive technologies that have low environmental impacts and so on should centrally considerations.

Re section A on information, we are mystified why this is only about "thermal plant retention investment". What about "retirement" and companion options, demand reduction campaigns, etc?

Re B 5.14, the problem with spot prices is that these can be manipulated by suppliers particularly by those who can lower the rate of generation in order to crank up prices in order to exploit price inelastic demand in the short term in order to raise revenues. Strategic behaviour of this kind will always be a risk unless the regulator is vigilant and strong minded to protect the public good rather than the profits of big players.

The objective of the EA should be to control market manipulation and predatory pricing but not to perpetuate fossil fuelled thermal generation.

C- Modify Stress testing:

The problem with the strategy of requiring forward contracting is that it places all the emphasis on achieving future supply rather than demand reduction and demand management. It also fosters chaining people to the grid and does not assist with getting people into energy efficiency, passive solar, and self-sufficiency where that works.

Resilience: We had a vivid lesson in the resilience provided by off-grid power generation when during Cyclone Gabrielle, houses that are off-grid were fine and continued to provide power via solar PVs, providing lights, some appliances such as fridges and freezers, power to recharge communications equipment, do some of the household energy needs and to help neighbours, while houses on the grid had arcing of the lines and poles and then extended power losses with none of the recharging and maintenance of essential basics. People were dumping fridge and freezer contents, were unable to recharge communications just when they needed most to do that, and they could not boil a kettle, keep the lights on or use a microwave.

This taught a good deal about the virtues of being off-grid and not having vulnerable lines that shorted, were felled by trees and slips and the like. Lead-carbon batteries were in several of the off-grid homes. Vehicle batteries might also have been a source of extra resilience.

E – Require retailers to make compensation payments to customers affected by force power cuts.

Re para 5.33., we see no reason why consumers should not be able to opt in or out at least in advance of certain times of ripple control outages and be rewarded for their demand reduction and peak smoothing with tariffs or other pricing or incentives. Electricity generation avoided is probably cheaper than the marginal cost of peak energy generation, so there should be incentive space for win-win outcomes.

F – Ancillary service products:

This would only be acceptable to ECO if it specifically excluded fossil fuel generated products. Thus, we recommend that contrary to paras 5.38 and 5.39, the provision not be “technology agnostic” but that it be specifically required not to use fossil fuels.

G – Notice periods:

ECO agrees notice periods for major long term reductions in plant capacity, but we do not agree that the period should be a minimum of 3 years, for fossil fuelled generation. That might indeed have harmful effects by continuing the very greenhouse gas emissions that need to be terminated for the sake of the climate and all who depend on it. Thus we do not agree with the last sentence of para 5.43.

H – Introduce a capacity mechanism:

ECO is undecided about capacity mechanisms. We can see that they could cause responsiveness to be dampened. We are not necessarily in agreement that the consequences of overcapacity are as bad as under capacity. That is not self-evident and needs to be teased out and considered not solely in terms of investment considerations, but also in terms of social and environmental consequences and impacts on the incentives to leave behind fossil fuels, to innovate, to reduce demand etc.

Whatever is decided it is clear that any capacity involved must be specified not to be fossil fuel driven. We can well see the tendency to lock in fossil fuel generation noted in para 5.73.

J – Introduce a strategic reserve scheme:

ECO considers that the reasons for the closure of the Whirinaki plant need to be unpacked in this discussion. There is a strong suspicion that this was due to vested interest pressure from those who stood to gain from the intra-marginal rents.

The discussion of this option (and others) in our view needs to distinguish between short term options and the longer term options and consequences.

K – Pre-arranged short-term emergency reserve scheme:

This discussion does provide for the short, medium and longer term (but not long term), and that is important to reflect differing scopes for adjustment and in essence, the price elasticities of supply.

ECO would like to see more attention to the variations of elasticities of demand and how those are reflected in different large and small customers' abilities and willingness to tolerate interruptions and restrictions under different conditions and incentives.

Question 16

What other options (if any) could be explored to mitigate thermal transition risks, should these risks increase in future? Please explain your reasoning.

Response

ECO appreciates the work that has gone into this consultation and the development of options, but as above, it still feels as though there is an underlying goal of continuity of fossil-fuel supply that trumps concerns either for the immediate imperative of reducing greenhouse gas emissions, and of achieving demand reduction. Both of those goals need to be signalled with certainty and resolve: but that does not shine through in this paper. We assume that some members of your team are spread in their positions of this, but the dominant theme seems to be to be how to retain fossil fuel capacity.

We reject that goal and consider there is far, far more to be said, incentivised and done in the adoption of transition policy particularly in demand reduction and renewables.

We remain concerned too that there is little discussion of how low-income and vulnerable consumers can have their access to electricity protected (by say, income support) and how varying intensity of demands and in-elasticities of demand can be discerned and catered for to an individual household level.

The attention in the paper to fossil fuel supply options is excessive, and skews the consideration of options.

We would like to have seen much more discussion of the barriers to adoption of renewable energy – prosumer or consumer generated energy, and the smoothing out of capital costs, provision of technical advice and support, and of demand reduction mechanisms.

Some Reflections on the Limitation of the Consultation Framework

ECO has for the moment run out of time and capacity to flesh out elements of this submission.

The thrust of our concerns are clear, and though we are glad of the opportunity to send our views and thankful for the extensions provided. We quote again our well informed analyst:

“Summary: the current market structure is strongly defended, potential improvements to deal with the shortcomings of total reliance on the wholesale spot price are white-anted, distributed generation and decentralised decision-making are blocked as much as possible, and the task of determining what is in the “long-term interests of consumers” remains firmly with the Authority – not with consumers or their advocates.”

We discovered that there were many other EA “projects” that had been developed, some open for consultation some not, and some only open to the industry, or (undefined) “sector”.

It would have helped us to have had a summary of all those in this paper so that we could get our bearings on how the jig saw of consultations fitted together (or didn't).

We are very struck by how narrow are the objectives and goals of the Authority, and its priorities. We think there is scope for changing that, and also for auditing how far the Authority is set up to serve the interests of the generators and gentailers rather than society, the environment and the public as both citizens and as consumers now and in the future.

We would have liked to see a significant discussion of justice in transition, particularly for the workers and the disadvantaged consumers or those with few options. Virtually the only attention was to the interests of the investors. That needs to change.

Thank you for the opportunity to submit on your paper.

Nga mihi nui,

Cath Wallace,
Vice-Chair of the Environment and Consultation Organisations of NZ/Aotearoa.