1 October 2019

Jean-Pierre de Raad
Manager, Network Pricing
Electricity Authority
By email to submissions@ea.govt.nz

**Refining NZ submission on the Electricity Authority 2019 Issues paper - Transmission pricing review**

Dear Jean-Pierre,

Thank you for the opportunity to comment on the Electricity Authority (EA) 2019 issues paper.

Before setting out our response to the issues paper we wish to note that the consultation period has in our view, been unnecessarily short.

While we appreciate that workshops were conducted in the regions (including Whangarei) as part of the consultation process, it was apparent that many questions were left unanswered. In our view the workshop process appeared to be an opportunity to present the proposal rather than to conduct an open engagement with interested and affected parties.

Our subsequent questions direct to the EA were answered, but this was very late in the consultation process.

**About Refining NZ**

1. Refining NZ is New Zealand's only oil refinery supplying 70 to 75% of the country's oil product demand, with the remainder imported by the oil companies operating in New Zealand. The Company also owns and operates a refinery to Auckland pipeline which distributes transport fuel to a storage terminal at Wiri, adjacent to Auckland International Airport.

2. To remain a sustainable business Refining NZ must compete with large scale Asian refiners in key export hubs. Refining is an energy intensive industry and Refining NZ uses around 31% of the electricity consumed in Northland. Refining NZ is not grid-connected but receives supply from the Bream Bay grid exit point (BRB GXP) via Northpower's substation and dedicated feeders to site.

3. Refining NZ is a major employer in the region. In total, an estimated 1100 Northland jobs are dependent on the refinery with the refinery contributing around 7 percent of Northland's GDP. Another 2400 jobs in specialist services across the country are also dependent on work provided at Marsden Point.

**Our Response to the EA's 2019 TPM proposal**

Refining NZ's response to this issues paper draws on the Company's responses to previous TPM proposals, and supports similar responses made in the submission by Northpower and by those organisations representing the Northland community.


**Refining NZ**
Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311 Email: corporate@refiningnz.com www.refiningnz.com

Our response is set out under key headings:

**The proposal does not represent good energy policy**

4. The proposal does not meet basic tenets for what is considered best regulatory practice. Good policy meets the following requirements:
   - addresses a material and enduring problem;
   - does so via the smallest intervention possible; and
   - is based on robust economic foundations and a sound CBA (Cost benefit analysis).
5. Furthermore, the proposal does not align with the Government's energy policies including climate change objectives and energy efficiency goals and is at odds with the intent of the Electricity Pricing Review.

**We believe the proposal should take a "triple bottom line" perspective (financial, social, and environmental)**

6. In our view the proposal is based solely on the economics of using the electricity grid and ignores its social and environmental impacts.

7. The poorer sections of the community (e.g. Northland where the unemployment rate of 8.8% is two percentage points above the national average) will face the biggest increase in transmission charges simply to retain an existing level of service.

8. It is an established fact that many Northlanders are subject to energy poverty with consequent health issues, such as rheumatic fever, a reality for too many in the region. Adding financial burden through increases in energy bills, can only exacerbate these issues.

9. The design of the 'Benefits-Based' (BB) charges and arbitrary application of recent investments from which Northland is deemed to benefit, would see a significant increase in the region's annual transmission charges. The EA has estimated that the transmission charge to consumers may increase by around 15.5% for the Northpower network and by around 43% on the BRB GXP. Those indicative figures are only for 'year 1' and do not include the impacts on final prices of the increases in distribution network costs and wholesale prices that would surely flow from the proposal.

**The proposal does not consider the environmental impact**

10. Users' motivation to improve their environmental impact via genuine energy efficiency investments would be reduced: - the economic justification for those investments is undermined by the proposed ten year reset of gross Anytime Maximum Demand (AMD) as the basis for allocating the "Residual Charge" which rules out the opportunity for users to reduce their transmissions charges.

11. Energy efficiency investments, such as co-generation at industrial sites, will become less attractive because they do not reduce the gross AMD and hence do not reduce the "Residual Charge" and have a minimal impact on the "Benefit-Based Charge", despite a structural reduction in actual use of the transmission system.



**Refining NZ**
Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311 Email: corporate@refiningnz.com www.refiningnz.com

12. Looking to the future, the introduction of new lower carbon technologies that support the much needed growth of renewable generation in years to come, requires a strong and stable grid not a radical and untested regime that will drive disputes over who “benefits” from long life assets and what those benefits are.

13. Refining NZ has plans to construct a 26MW solar farm on 31 hectares owned by the Company adjacent to the refinery. This solar farm would be New Zealand’s largest and is a genuine attempt to produce “zero carbon” electricity and to further reduce the carbon footprint of the refinery.

14. This project is designed to be connected “behind the meter” and directly to the refinery feeders. The EA proposal to use gross AMD will create a huge challenge for Transpower to estimate the actual output of this generation plant and add this to the net AMD in order to calculate the Refinery gross AMD. We believe the value Transpower will be able to calculate will be at best, a close guesstimate.

15. The net benefits claimed by the EA since the last CBA in 2016 has increased from $213 million to $2.7 billion on the new CBA, over a 27-year period. This benefit supposedly comes from the more efficient grid use by having more consumption during peak periods without a regional coincident peak demand (RCPD) charge. The EA has said that the new generation needed to supply the increased demand at peak periods is technology and source neutral. However, the EA also claims the rationale for the TPM proposal is decarbonising the economy.

16. We do not believe that new peak generation will improve the carbon footprint of the electricity grid. On the contrary, encouraging more demand during peak periods would only detract from the Government’s 100% renewable electricity and energy efficiency goals.

17. The CBA ignores the cost of the additional carbon emissions that could be produced if peak demand increases as forecast (for example, through constructing more generation or produced by the generation itself, e.g. geothermal).

18. While the EA acknowledges the importance of decarbonisation, it pays it no attention in its quantitative analysis.

**Wholesale changes to existing charges creates an unstable investment environment**

19. The inability of the EA to settle on a TPM regime after ten years of trying has created ongoing uncertainty for major industrials such as Refining NZ, is a strong disincentive for future investment in renewable capacity and has introduced sovereign risk to New Zealand’s energy sector.

20. Refining NZ makes investment decisions using long term assumptions for utility and infrastructure charges. Changes such as these can destroy the business case for investments already made and increase the risk of future investments.

**Price cap benefits direct connect major industrial users**

21. We acknowledge that introducing a cap mechanism to ease the transition for affected parties is an improvement. However, we believe that the cap mechanism needs to provide the equivalent rate of relief for large consumers whether they are direct connect or not. Making a distinction between large consumers on their connection status is spurious and only serves to "cherry-pick" winners from a relatively limited pool of users.

22. The cap design in the 2016 TPM proposal did not provide for this and as a consequence, could have led to unintended consequences: - users such as the refinery may have been incentivized to become a direct connect and as a consequence, Distributors would have needed to increase charges to other consumers within their network to ensure that large consumers were 'compensated' at the same rate as direct connects. We appreciate this has been addressed by the EA's 2019 TPM proposal with the inclusion of clause 42(c):

    *"avoid creating inefficient incentives for a **large consumer or generator** to shift their <u>point of connection</u> (beyond the ability to do so in the prudent discount policy). The prudent discount policy may apply to circumstances where a **large consumer or generator** is considering shifting their <u>point of connection</u>, but the **TPM** must include additional provisions to avoid creating such incentives."*

    However, the proposed guidelines do not prescribe how Transpower is to achieve this objective. As the EA described to Refining NZ during the consultation period on this issues paper, this could lead, for example, to a design that will restrict the application of the price cap to those customers that were grid-connected at the date of release of the EA's 2019 TPM proposal. This approach will not address the concern expressed in paragraph 21.

23. The cap is an extra increase on customers that are not benefitting from the new TPM proposal. The proposed price cap increases the transmission charges in Upper North Island distributors from +$5.9 milion before cap applied to +$10.6 million with the cap applied. For Refining NZ the proposed cap further increases the transmission charges by around $100k.

24. Refining NZ believes that the funds for the cap increase should come from parties set to experience substantial price reductions not from customers already facing price rises – e.g. Meridian's estimated price cut is $28.7 million in the first year; NZAS's anticipated price cut is $11.3 million in the first year.

**Refining NZ does not support a "user pays" basis for basic infrastructure such as electricity transmission**

25. As we have submitted on previous EA proposals, Refining NZ believes that a "postage stamp" pricing basis is appropriate because the service received is the same for each user irrespective of where they live in the country, and because a cost-plus pricing method will lead to future over-investment in infrastructure.

26. Under the EA's proposed approach outlined in this issues paper, electricity users would be forced to pay prices for new investments based on a 'guesstimate' of the benefits that they might receive over a series of uncertain scenarios over several decades. Those charges might never change. There is no known competitive market in which prices are set in this way.



**Refining NZ**
Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311 Email: corporate@refiningnz.com www.refiningnz.com

27. If BB charges were construed as being fair to apply to new investments, the benefit needs to be allocated based on an improvement, not purely because the investment is being used, because another party has used up all the capacity in the existing assets.

28. In addition, a clear process setting out the timing of reviews, should the use of the assets materially change over their lifetime, would need to be established.

**Refining NZ does not support including sunk costs in new methodologies**

29. Long term business decisions are fundamentally dependent on assumptions for utility and infrastructure charges. Changes to such charges can destroy the business case for investments already made and increase the perceived risk of any future investments. Refining NZ's business cases are particularly long term due to the life expectations of our big assets and we re-iterate the often expressed desire for certainty, even if imperfect, over continuous change.

30. We do not support wholesale changes that alter the economics of previous investment decisions, so any revision to pricing methodologies should exclude re-allocating sunk cost. The Government's electricity price review queried why the EA was trying to undertake such reallocations and the EA itself admitted that it has not been able to find any examples of other regulators reallocating the sunk costs of past investments.

31. Under the EA's proposal Northland users would pay for an arbitrary selection of seven recent investments, as well as for a share of older investments that may have had more benefit to customers in other parts of the country. Refining NZ estimates that this proposal will result in increased cost to our business of around $1.2 million per annum.

**We support a permanent peak demand charge**

32. The proposal removes the incentive to reduce use of the transmission grid because the transmission cost will not reduce. We believe this may well lead to inefficient or unnecessary infrastructure investments.

33. We acknowledge that the EA's latest proposal gives Transpower the option to propose a transitional peak price signal to manage the risk of a large withdrawal in load control.

34. While more pragmatic than the TPM 2016 proposal we believe that the need for a peak demand charge should be permanent, not transitional as it is currently proposed, and leave nodal pricing as the appropriate instrument to send a signal of long run investment costs. The EA highlighted the limitations of nodal pricing in its 2015 TPM Working Paper:

    *" Reliance on nodal pricing is insufficient to promote efficient transmission investment because nodal pricing does not provide a sufficient price signal about the cost of the future transmission investment needed to supply changes in demand for transmission services."*[1]

[1] Electricity Authority, TPM Working Paper, 16 June 2015, P.53.


**Refining NZ**
Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311 Email: corporate@refiningnz.com www.refiningnz.com

35. We agree with the above statement that nodal pricing on its own is insufficient. Without an additional price signal during peak periods, electricity consumption will be too high and lead to Transpower investing sooner than would otherwise be the case - i.e. if a peak charge was giving an explicit signal to consumers to reduce peak demand.

36. The EA has failed to provide a satisfactory explanation for what would happen in these future scenarios.

**Concluding comments**

37. The changes to transmission pricing proposed by the EA will have negative impacts for major industrials such as Refining NZ and ultimately undermines our ability to compete with Asia pacific refiners and to continue to provide work to around 1100 Northlanders.
38. Wholesale changes to the electricity market introduces sovereign risk, and will prevent investment in the low carbon technology New Zealand needs to generate more renewable electricity in the future. At a community level these proposed changes will only exacerbate energy poverty which is prevalent in the Northland region.
39. The future of energy requires a stable electricity system grounded in prudent, sound policy. Radical change to transmission pricing only breeds uncertainty and by the EA's own admission, is not needed.
40. To that end we strongly recommend that the EA consider options that can be implemented within the existing guidelines:
    - modify the RCPD charge by increasing the number of peaks over which contributions are measured, and or, increase the number of regions where these peaks are measured to 'soften' the strength of the price signal; and
    - modify the HVDC charge by undertaking a pragmatic reallocation so that it is not levied solely on South Island generators.
41. In the absence of pragmatic change, that is fair and equitable to all electricity consumers, Refining NZ is of the view that such an important matter is beyond the purview of the EA and would be better managed via a government policy statement.

Yours sincerely

Mike Fuge
**Chief Executive Officer**



**Refining NZ**
Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311  Email: corporate@refiningnz.com  www.refiningnz.com