



MAJOR ELECTRICITY USERS' GROUP

23 September 2014

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General Manager Market Design
Electricity Authority

By email to submissions@ea.govt.nz

Dear John

Working paper – TPM: LRMC charges

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Electricity Authority working paper¹ "Transmission Pricing Methodology: LRMC charges" dated 29th July 2014. On 12th September the Authority published the spreadsheet referred to in Appendix A of the working paper.
2. Members of MEUG have been consulted in the preparation of this submission. This submission is not confidential.
3. The Authority's decision to have a working paper on LRMC charging is helpful and relevant given LRMC charging, a market-like approach, at first glance has a higher ranking on the hierarchy of decision making than beneficiaries-pay approaches. If demand forecasts, capital expenditure forecasts and the impact of future changes in technology and innovation were all known accurately then LRMC charging would be a better option than beneficiaries-pay options. However all of those are subject to material forecast uncertainties.
4. Experience with demand and cost forecasting by Transpower has been poor and costly as evidenced by Transpower's North Island Grid Upgrade Project ("NIGUP"). The Authority's prior SPD modelling has illustrated how NIGUP charges paid by transmission customers exceed the value they derive from NIGUP². To rub salt into the wound, Transpower are concurrently seeking approval from the Commerce Commission for a further \$52m cost overrun to be approved that will be added to interconnection charges. This is not a theoretical concern. For example all South Island consumers derive negligible benefit from NIGUP and yet they too will pay a share of the \$52m cost overrun if approved. Given this

¹ Document URL <http://www.ea.govt.nz/dmsdocument/18259> at <http://www.ea.govt.nz/development/work-programme/transmission-distribution/transmission-pricing-review/consultations/#c13677>

² E.g. EA working paper, TPM: Problem definition relating to interconnection and HVDC assets, 16 September 2014, table 3, p51 estimated the net market benefit of NIGUP according to SPD method in a 2017 scenario at \$40m per year, compared to annualised cost in excess of \$90m. Document URL <http://www.ea.govt.nz/dmsdocument/18474> at <http://www.ea.govt.nz/development/work-programme/transmission-distribution/transmission-pricing-review/consultations/>.

experience with NIGUP MEUG's starting point is to be sceptical LRMC charging will, because of its reliance on model forecasts, run the same risk of capture by Transpower and or parties seeking justification for transmission over-investment where the cost is spread to others.

5. The working paper asks if those uncertainties and any perverse incentives are sufficient reason not to proceed with further work on LRMC charging; or they minor and manageable and therefore LRMC charging should be considered in more detail?
6. The most important two paragraphs in the working paper are 1.18 and 1.19. Those are quoted in full below:

1.18 *In addition to those technical issues there are regulatory issues about whether the LRMC approach in practice provides perverse price signals and whether it would be sustainable over time. In particular:*

- (a) *LRMC charges provide price signals based on investments that are expected to occur in the (distant) future. The LRMC charges for each investment reduce to zero when the new asset is commissioned. Once a party is charged for future investments they would appear to have perverse incentives to push for those investments to occur as soon as possible so as to reduce their charges to a minimum. To the extent that adjustments to timing of investments are not reflected in LRMC charges, LRMC charges would encourage inefficient timing of investment. Having a charging basis such as beneficiaries pay applying following commissioning of investments would counteract this effect.*
- (b) *An LRMC charging regime may be unsustainable as parties would be paying for assets/services that don't yet exist and, as noted in (a) above, the charges are unstable at the point of investment. There is also the issue of whether the regulator can reasonably assess the accuracy of the forecasts of demand and transmission investments. Those forecasts are likely to change over time, and new investment and technology options will arise over time. These issues lead the Authority to question whether the charging regime will be sufficiently robust over time to be sustainable.*

1.19 *The Authority notes that these practicability issues are considerable and, to the extent they can be resolved, significant time would be required. The Authority would welcome submitters' views on whether these issues can be readily addressed.*

7. MEUG agrees with the observation in paragraph 1.18 (a) that there is a perverse objective for parties paying transmission charges to commission new assets as early as possible irrespective of the actual need date. The solution to this perverse behaviour, suggested in paragraph 1.18(a), is to have a beneficiaries-pay approach once new assets are commissioned. This leads to an unsatisfactory disconnect between the basis for investment decision making (LRMC) and how charges are actually recovered (beneficiaries-pay). This is an inferior outcome compared to a beneficiaries-pay approach for both investment decision making and actual pricing once assets are commissioned.
8. Paragraph 1.18(b) notes transmission customers will, with LRMC charging, be paying for assets not in service. The current problems for the regulator assessing the accuracy of forecast demand and investment costs, such as those experienced with NIGUP, will remain. LRMC charging therefore does not improve on these two very important problems compared to the status quo and furthermore may lead to additional higher charges in advance for customers. On this basis alone MEUG can see no merit into pursuing further investigation into LRMC charging.
9. Two further comments:
 - a) A solution for the treatment of the residual is not advanced by using LRMC relative to beneficiaries-pay; and

- b) An attractive feature of LRMC charging is that it should only apply when lines are congested on a peak rather than energy basis. However at a practical level there are significant design issues, often in relation to ex ante settings that may not reflect true congestion prices plus deciding the fraction to be apportioned to supply and demand, that are avoided with an ex post beneficiaries-pay approach. These “practicability issues” referred to in paragraph 1.19 of the working paper (quoted above in paragraph 6) we agree are considerable, will take considerable time to investigate and therefore support our view that further work into LRMC charging is not warranted.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R. Matthes', with a long horizontal stroke extending to the right.

Ralph Matthes
Executive Director