MAJOR ELECTRICITY USERS' GROUP

24th November 2015

Mike Underhill
Chief Executive
Energy Efficiency and Conservation Authority
By email to levyconsultation@eeca.govt.nz

Dear Mike

Submission on EECA's proposed 2016/17 appropriation of $13m to be funded by a levy on all electricity consumers

1. This is a submission by the Major Electricity Users' Group (MEUG) on the joint Electricity Authority and Energy Efficiency and Conservation Authority (EECA) consultation paper[1] "2016/17 Levy-funded appropriations, Electricity Authority work programme, and EECA work programme", published 13th October 2015. The EECA draft appropriation proposal is in appendix D of that paper.

2. MEUG has made a separate submission to the Electricity Authority on their proposal. MEUG members have been consulted in the preparation of this submission. This submission is not confidential.

3. MEUG members will pay over three and a half million dollars of the $13m proposed levy but will receive little or no benefits for that expenditure. At a time when most members, who are export exposed businesses are facing low and falling commodity prices that are forecast to remain low for some time, every dollar of expenditure has to provide value or a net benefit. This is not the case with the levy.

4. The MEUG Executive Committee appreciated the visit by Tom Campbell, EECA Chair, Dr Elena Trout, EECA Board member, Mike Underhill, EECA CEO and Greg Visser, GM Business, to the MEUG Executive Committee meeting on 28th October 2015. That meeting discussed opportunities for EECA and MEUG to work together to get the best out of EECA programmes using levy payer monies. Two aspects worth pursing were identified at that meeting. First EECA's standard contracting terms requiring programmes to be implemented by consultants qualified for courses approved by EECA was not a hard and fast rule and could be negotiated on a case by case basis. Second there may be a benefit for MEUG members to be more active in EECA's consideration of non-domestic minimum

[1] Document URL http://www.ea.govt.nz/dmsdocument/18636 at http://www.ea.govt.nz/about-us/corporate-projects/201516-planning-and-reporting-/consultation/#c14100. Advise on EECA's web site for this consultation is found at http://www.eeca.govt.nz/node/62995

energy performance standards (MEPS)[2]. On both of these topics MEUG might add value by facilitating engagement with members to complement EECA's direct engagement activities.

5. The meeting on 28th October 2015 canvassed some aspects of the EECA levy. That discussion was useful but has not changed the view of MEUG members that Ministers should cease levying electricity consumers to fund EECA work.

6. Prior submissions have considered three themes as follows. These remain relevant for this consultation:

   a) Members of MEUG are materially affected by the proposed levy for 2016/17 because they will pay approximately $3.66m (28%) of the proposed $13m levy but receive negligible if any benefits;

   b) The policy rationale for the levy is very poor and individual levy payers would be better off electing to invest monies they pay as levies into electricity efficiency initiatives if they wish; and

   c) Last year MEUG demonstrated that the scale of the proposed $13m levy is disproportionate to the need and relative value of work by other regulators and service providers in the electricity sector. The $13m spent on electricity efficiency is also disproportionate to EECA expenditure on other energy forms.

7. There has been no transparency in prior years on how the view of submitters on proposed levy appropriations have been relayed to decision makers. For the 2016/17 appropriations round we will be seeking evidence that our views have been taken into account and communicated to decision makers.

8. The balance of this submission covers three new topics:

   a) There is insufficient evidence to link a prediction there will be reductions in demand of 340 GWh per annum (pa) with the proposed $13m appropriation proposal;

   b) Even if the 340 GWh pa reduction in demand is correct there is no net national benefit that will be realised using a standard cost benefit analysis approach; and

   c) With no net national benefit expected for the proposed 2016/17 appropriations then the benefits for the levy funded programme since 2005/06 are also likely to be negligible or negative.

Insufficient evidence to support claimed 340 GWh reduction in demand in 2016/17

9. EECA's evidence that the proposed $13m levy programme spend in 2016/17 will achieve 340 GWh pa in that year and the following nine years is set out footnote 25 on p56:

> "Estimated savings are based on planned activities and historical indicators. Actual savings will depend on the uptake rate and programme mix of activities across each sector."

10. MEUG does not believe this is sufficient to support the proposition that spending $13m of levy payer money will directly result in 340 GWh pa of demand reduction for 10 years that would not otherwise have been realised. In effect EECA are asking levy payers and Ministers to defer to EECA's judgement.

[2] The EECA work on MEPS can be found at https://www.eeca.govt.nz/standards-ratings-and-labels/equipment-energy-efficiency-programme/about-the-equipment-energy-efficiency-programme/

There is no net national benefit for the proposed work

11. EECA make two separate approaches to calculating the benefits and costs for the proposed $13m levy and work programme.

12. The first approach is the present value deferment of investment in new power stations using a long run marginal cost (LRMC) value of 8.8 c/kWh. This is the avoided LRMC value approach. The second approach calculates the club, private and public benefits and costs just for 2016/17. This is the gross benefits approach. In prior years EECA has used the LRMC value approach. This year they have added a new lens with the gross benefits approach. Both approaches are incorrect in terms of calculating net national benefit. The following table summarises a conventional cost benefit analysis approach to calculate the net national benefit of the appropriation proposal:

<table>
<tr><td>Factual (EECA levy) and counterfactual (market response)</td><td colspan="4">If EECA's $13m work programme proceeds then total New Zealand demand in 2016/17 will be[3] 41,061 GWh. EECA's work facilitates private investment[4] of $66m in 2016/17. This is a real cost to New Zealand. Only $2.5m of the $13m levy cost is treated as a resource cost[5]; the balance are wealth transfers. This is the factual[6].
The counterfactual is demand will be 340 GWh higher (+0.8%) at 41,401 GWh in 2016/17 and stay higher compared to the factual for another 9 years. In 2026/27 private investment of $66m is made realising the 340 GWh demand reduction from then on. This is the counterfactual, ie the market responds in due course.</td></tr>
<tr><td rowspan="4">Comparing the costs of the factual and counterfactual at an 8% discount rate</td><td>PV of benefits and costs</td><td>EECA levy
$m</td><td>Market response
$m</td><td>PV net benefits
$m</td></tr>
<tr><td>Allocative efficiency benefits[7]</td><td></td><td></td><td>+3.5</td></tr>
<tr><td>Dynamic efficiency costs[8]</td><td>63.4</td><td>28.3</td><td>-35.1</td></tr>
<tr><td>Net PV of EECA levy option</td><td></td><td></td><td>-31.6</td></tr>
</table>

13. In summary the allocative efficiency benefits of the programme are very small relative to the earlier private investment cost to realise the estimate of 340 GWh pa of demand reductions over 10 years from 2016/17. New Zealand would be better off to leave the decision to private households and businesses when to invest their $66m to realise reductions in demand.

[3] Demand is calculated using the indicative levy rates on p14 of the consultation paper and assuming that includes the 340 GWh demand reduction estimated by EECA.
[4] Refer p50 of the consultation paper.
[5] Refer the "public cost" estimate in footnote 13, p51 of the consultation paper.
[6] MEUG do not agree with EECA's proposal that there is an additional resource cost for greenhouse gas emissions to be included in the analysis because that cost is already incorporated in ETS costs that flow into wholesale electricity prices.
[7] The estimate of the difference in allocative efficiency between the two options assumes that there are actual barriers to efficient uptake of electricity efficiency as EECA claim. This is a working assumption for this analysis and MEUG notes that we have and continue to dispute that EECA has demonstrated and quantified any market failure using conventional cost benefit techniques. With this caveat the change in allocative efficiency in 2016/17 is calculated as the deadweight loss using the standard calculation of half the sum of the change in quantity and price. The change in quantity is 340 GWh and the change in price is 3.5% of the LRMC of 8.8 c/kWh.
[8] Resource costs in 2016/17 are treated as being the first year the discount rate applies.

14. Note that the above analysis assumes allocative efficiency benefits based on EECA's estimate of 340 GWh pa demand reductions and a 3.5% decrease in prices. As noted in paragraphs 9 and 10 above there is insufficient evidence to justify this assumed reduction in demand. We have not analysed the claimed decrease in price because the analysis above is sufficient to demonstrate there is no net national benefit.

15. One test of the robustness of the above analysis is to assume no private investment is required in 2016/17 to realise the 10 years of 340 GWh pa demand reductions. In that case the present value cost to New Zealand is $2.3m and the present value allocative benefits $3.5m giving a national benefit net present value of $1.2m. However it's highly unlikely that private investment required to complement the levy funded programme would be less than $1.2m in present value terms. Accordingly even with extreme assumptions the conclusion that the electricity efficiency levy funded work has no net benefit is robust.

16. The national benefit analysis above is the conventional cost benefit analysis approach used by the Electricity Authority, Commerce Commission and the Treasury[9]. EECA in response to a question by MEUG agreed their gross benefit approach was not the conventional approach[10]. Both the avoided LRMC approach and gross benefits approaches are a partial and incomplete picture of the effects on the economy.

Levy funded work to date also likely to have negligible or negative net benefit

17. The EECA proposal claims that since 2006 when levy funded work began the present value of savings is estimated to be over $1 billion. That calculation uses the avoided LRMC approach. As noted above this is only a partial and incomplete picture of the effects on the economy. MEUG has not undertaken a conventional cost benefit analysis of the levy funded work since that began in 2005/06 though we see no reason to believe the conclusion would differ from that for 2016/17; that is negligible if any net national benefit.

Next steps

18. We look forward to your consideration of these submissions and in due course will follow up with further requests for information as appropriate.

19. Separately MEUG members and MEUG will continue to discuss opportunities to work with EECA such as those mentioned in paragraph 4 of this submission.

Yours sincerely

Ralph Matthes
Executive Director

[9] Refer: The Treasury, Guide to Social Cost Benefit Analysis, July 2015. Appendices 2 and 3 have examples of calculating the deadweight loss, http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide.
[10] Refer EECA email dated 18th November to second set of MEUG questions emailed 6th November 2015. EECA in reply to question 7) stated "For the levy benefits allocation analysis, we have deviated from using pure economic benefits analysis, on the basis that costs, and the resulting benefits, accrue to particular parties, in this case private investors, levy payers (generally), and the NZ public. Consequently, the results should not be interpreted as being a direct estimate of economic benefits, nor have they been presented as such."