



MAJOR ELECTRICITY USERS' GROUP

12 December 2014

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Energy Efficiency and Conservation Authority
By email to levyconsultation@eeca.govt.nz

Dear Brian

Submission on EECA's proposed 2015/16 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 paper¹ "2015/16 Levy-funded appropriations, Electricity Authority work programme, and EECA work programme", 29th October 2014. The EECA draft appropriation proposal is in appendix D of that paper.
2. MEUG has made a separate submission to the Electricity Authority (EA) on their proposal. MEUG members have been consulted in the preparation of this submission. This submission is not confidential.
3. This submission contains six sections:
 - Establishment of MEUG members as materially affected parties because they are significant payers of the levy;
 - Discusses how members of MEUG are also recipients of levy funded work;
 - Considers the policy rationale for the levy and reaches the same conclusion of prior years that the rationale is poor and individual levy payers would be better off electing to invest monies they pay as levies into electricity efficiency initiatives if they wish;
 - Notwithstanding the poor policy foundation for the levy, if an appropriation is made for 2015/16, then the appropriation should be scaled down;
 - Notwithstanding the poor policy foundation, how can EECA improve outcomes; and
 - A summary and conclusion section.

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>

Levy paid by MEUG member

4. Assuming the same unit levy rate as the actual 2014/15 rate, then MEUG members will pay approximately \$3.66m of the total \$13m electricity efficiency levy proposed by EECA for 2015/16 appropriations. MEUG members in aggregate will pay approximately 28% of the total levies paid by end users as summarised in the following table².

Consumer	Demand ³ GWh pa	EECA levy ⁴ \$k pa
Pacific Aluminium	4,961	1,608
CHH	1,200	389
NZ Steel	1,100	357
Fonterra	1,000	324
Pan Pac	628	204
FBL	500	162
Norske Skog Tasman	500	162
Progressive Enterprises Ltd	300	97
Refining NZ	300	97
Winstone Pulp International	280	91
Oceana Gold	145	47
Whakatane Mill	140	45
Holcim	70	23
Heinz Watties	59	19
Dongwha	58	19
Ravensdown	28	9
Lion	23	7
MEUG members	11,277	3,660 28%
All consumers	40,111	13,000 100%

NPV 5 years @10% = \$13.9m

5. The quantum of levy paid by individual MEUG members is highly material. Businesses throughout New Zealand must be as efficient and low cost as possible to compete in export markets. Expenditures in the tens of thousands of dollars are typically subject to rigorous review to make sure they add value. This applies to small and large companies. As the table above illustrates the EECA levy for most MEUG members is above \$10,000, usually above or around \$100,000 per year and in the case of the largest power user in New Zealand, Pacific Aluminium, in excess of a million dollars per annum.
6. No MEUG member has ever expressed the view that the scrutiny EECA and other government agencies put on the value of the outputs for their share of the levy matches, or even comes close to, the scrutiny an individual company would apply to whether the expenditure of that money is being applied to the highest value creating opportunity for that business.
7. The EECA levy is perceived as and is a significant tax that individual levy payers can see no direct benefit that accrues to the payments they make.
8. In comparison an average household's levy payments equal⁵ \$2.60 per year. The levy represents a major tax on large users' but is barely noticeable for an average household. Householders are also employees or owners of levy paying businesses so while they may be indifferent to, for example, the proposed appropriation of \$13m doubling in terms of the

² Refer MEUG memo for discussion with EECA Board, 25th November 2014

³ Demand refers to gross demand, ie not including onsite co-generation. Some values are estimated

⁴ Assumes 2014/15 invoiced rate of \$0.3241/MWh

⁵ Calculated as 8,000 kWh pa @ 2014/15 invoiced rate of \$0.3241/MWh

direct impact on their household power bills they are indirectly affected by the greater tax on employers stifling growth and employment in the economy.

MEUG member recipients of levy funded work

9. Over the years some MEUG members have been recipients of levy funded programmes. Other members have not been recipients of any direct levy funded work. On average MEUG members have paid more in levies than the direct benefit they have received.
10. For example Pacific Aluminium has paid at least \$1.6m per annum ever since the levy was introduced yet it is inconceivable that the EECA levy funded work could assist the company to improve its aluminium production processes. The same can be said for most other MEUG members and we expect on average for the other 180,000 businesses that use electricity in New Zealand⁶ and that each pay a share of the levy.
11. Some businesses have received more from EECA levy funded work than they have paid in levies. But those companies are a minority. In aggregate most business levy payers are in effect subsidising those businesses that are gross beneficiaries of levy funded work. Most New Zealand businesses work hard and make tough decisions to allocate scarce capital and managerial expertise across all of their activities, be it product innovation, manufacturing or marketing, including decisions on investing in energy efficiency options across all the energy forms they may use. It's not just disheartening but also a risk of "corporate welfarism" whereby companies that are late adopters or made poor decisions on when and how to implement energy efficiency programmes compared to their competitors that chose to invest their own time and money; are now subsidised by those peer competitors. This is not true of all of EECA's levy funded work as there are cases where levy funded demonstration projects probably have accelerated the uptake of innovative new approaches and technologies to improve electricity efficiency.

The policy rationale for the levy on electricity users'

12. To assist MEUG form a view on the pros and cons of the policy issue, need and scale of the intervention to be funded by a levy, MEUG asked EECA a number of questions. The answers by EECA are included as an appendix.
13. MEUG do not support the view of EECA that there are major market failures in the uptake of electricity efficiency. We do not think EECA has distinguished between normal commercial barriers to uptake of electricity efficiency opportunities and sustained structural barriers requiring intervention. This topic has been well canvassed by MEUG in prior year submissions and we have seen no new reasons by EECA to change our views.
14. The evidence tabled by EECA that programmes to date has been a success is unconvincing. There remains a significant gap between EECA and MEUG on:
 - a) The market failures the levy funded work is supposedly aimed at fixing;
 - b) Claimed benefits to date of levy spending;
 - c) The need for independently audited expert reviews of work programmes;
 - d) Where there might arguably be "market failures", in the conventional economic policy framework used by Treasury, that levy funded work by EECA is the best way to mitigate that failure;

⁶ Minister of Economic Development (predecessor to MBIE), Energy Data File 2012, Table G.6a: Electricity Market snapshot – 2011 March Year, sum of Industrial and Commercial connections (excludes agriculture, forestry and fishing ANZSIC A01 to A05) document URL <http://www.med.govt.nz/sectors-industries/energy/pdf-docs-library/energy-data-and-modelling/publications/energy-data-file/energydatafile-2011.pdf> found at <http://www.med.govt.nz/sectors-industries/energy/energy-modelling/publications/energy-data-file/new-zealand-energy-data-file-2012>

- e) Cross-subsidisation and or inequitable burden on users' of electricity for what should be EECA business-as-usual work for all energy forms, such as making standards.
15. All of these points have been raised by MEUG in the past⁷ and remain unresolved. Rather than rely on EECA to take a reasonable approach on their appropriation requests without success we will be raising these issues with various departments including the Audit Office when they conduct their review⁸.

The scale of the proposed \$13m levy is disproportionate to need and relative value of work by other agencies

16. EECA's total proposed appropriation for 2015/16 (refer table on page 46, Appendix D) excluding home insulation grants (\$27.5m), implementation of the home insulation programme (\$2.5m) and deployment of marine energy devices (\$0.949m) equals \$29.584m and is proposed to be funded and work applied to electricity and other energy forms as follows:

EECA proposed appropriation for 2015/16	Cost to taxpayers \$m pa	Cost to electricity levy payers \$m pa	Total \$m pa	Proportion
EECA work on all other energy forms	16.584	Note electricity users' also pay part of taxes on LHS		56%
Electricity Efficiency work funded by levy		13.000		44%
Total	16.584	13.000	29.584	100%

17. The proposed electricity efficiency levy funded work would comprise 44% of total EECA spend on total energy forms. Assuming the total EECA spend above, that is excluding the items listed in paragraph 15 of this submission, of \$29.584m then the following evidence demonstrates that the share of work on levy funded activities is disproportionately too high and should be reduced.
18. EECA have stated⁹:
- “New Zealand spends approximately \$18 billion on energy each year. We estimate that annual savings of around \$2.4 billion could be realised from targeted energy efficiency programmes.”
19. In appendix D (p43) of the consultation paper EECA stated:
- “EECA estimates that of the estimated \$6.7 billion that consumers spend on electricity each year, more than \$600 million a year could readily be saved by further electricity efficiency measures”.
20. Using the above quoted estimates by EECA the table below calculates the proportion of EECA appropriation to spend on electricity versus other forms of electricity:

Appropriation based on consumer spend	Consumer spend \$billion pa	Fraction	Implied appropriation \$m pa
All other energy forms	11.3	63%	18.572
Electricity	6.7	37%	11.012
Total	18.0		29.584

⁷ The most recent submission was MEUG to EECA, Proposed electricity efficiency appropriation for 2014-15, 22nd October 2013, refer paragraphs 5 to 9 (document URL <http://www.meug.co.nz/includes/download.aspx?ID=130989> found at <http://www.meug.co.nz/Site/submissions.aspx>)

⁸ Question and answer 6 in appendix

⁹ EECA Annual Report 2013/14, p9, document URL <http://www.eeca.govt.nz/sites/all/files/eeca-annual-report-web-2013-2014.pdf> found at <http://www.eeca.govt.nz/resource/eeca-annual-report-2013-14>

Appropriation based on EECA assessed efficiency opportunities	Efficiency opportunities \$billion pa	Fraction	Implied appropriation \$m pa
All other energy forms	1.8	75%	22,188
Electricity	0.6	25%	7.396
Total	2.4		29.584

21. Notwithstanding the discussion in paragraph 14. a) and b) of this submission that we do not believe EECA's estimation of energy efficiency opportunities being foregone by consumers due to some undefined market failure, the analysis above shows that the levy funded work programme should be around \$7m per annum and not \$13m to be in proportion to EECA's own estimates of energy efficiency opportunities. There is another caveat to this: Some of the ECA work on electricity efficiency relates to development of standards and as MEUG has argued in the past work on standards should not be recovered by a levy on electricity users when work on standards that apply to other energy forms are funded from the general account¹⁰.
22. Another example of the scale of EECA's budget on levy funded electricity work being excessive is to compare the value of consumer spend on oil products. Based on the value of energy consumed then EECA should be spending twice as much on promoting energy efficiency on oil products as electricity. If EECA only spent monies on electricity and oil products then as a percentage of the total EECA budget¹¹ of \$29.6m the electricity efficiency work would have a budget of \$10m and not \$13m as calculated in the table below:

Energy used	Cost to consumers \$b pa	Proportion	EECA budget proportional to cost to consumers \$m pa
Oil products ¹²	11.7	66%	19.6
Electricity	6.0	34%	10.0
Total			29.6

23. MEUG is not proposing that users' of oil products are taxed an oil efficiency levy similar to the electricity efficiency levy on power users; though it does beg the question if the latter was such a good policy then why isn't there a similar good policy reason for energy efficiency levy's on other energy forms. The answer, in our view, is that the policy foundations of the levy on electricity users' is weak at best and therefore copying that poor policy intervention to other forms would do more harm than good to the economy.
24. The scale of the EECA work on electricity efficiency funded by a levy on all power users' compared to work of the regulators and others as follows:

Entity	Electricity related 2015/16 \$m pa	Fraction of EECA
EECA levy funded electricity efficiency work	13.0	
EA operating expenses excluding service provider costs and what's my number campaign ¹³	18.7	144%
EA what's my number campaign	3.0	23%

¹⁰ See reference to this being raised in prior years in paragraph 14. e) of this submission

¹¹ This excludes the energy efficiency Crown Loans Scheme

¹² Question and answer 2 in appendix

¹³ Consultation paper, table 1, p3

Commerce Commission work on regulating Transpower and distributors ¹⁴	1.4	11%
Transpower Demand Side Response programme approved by the Commerce Commission ¹⁵	1.6	12%

25. If the budget for EECA and the other entities in the above table are proportional to the net benefit likely to accrue to the economy then it's hard to believe the work by the EA to improve competition and efficiency in the entire supply chain will only benefit consumers by 44% more than the work of EECA. EECA's budget appears to be grossly over-stated.
26. The recent decision of the Commerce Commission to decrease the WACC percentile will in future lower electricity and gas regulated line costs by \$45m per annum. This is a good example of the tangible benefits to consumers from the Commerce Commission's work. And yet the budget of the Commerce Commission for 2015/16 at \$1.4m to regulate electricity monopolies is a small fraction of the proposed EECA budget for electricity efficiency of \$13m. Either the budget for the Commerce Commission is grossly underestimated or the budget for EECA's levy funded electricity efficiency work grossly over-stated. We believe the latter rather the former applies.
27. Another example is to compare the scale of EECA's levy funded work with the cost of various service providers employed by the Electricity Authority as follows:

Service provider to the EA ¹⁶	Proposed 2015/16 budget \$000	Fraction of EECA \$13m pa levy
Clearing Manager	2,141	16%
Wholesale Information and Trading System	1,460	11%
Pricing Manager	1,621	12%
Reconciliation Manager	1,233	9%
Registry	547	4%
FTR Manager	812	6%
Total	7,814	60%

28. MEUG finds it incredible to believe that the work of say the FTR Manager, that is complex and has very material commercial outcomes on final prices, can be managed at a budget of less than \$1m and yet EECA requires a budget 13 times that amount for, what MEUG would argue, very nebulous if any net benefit to consumers as a whole apart from some subsidised benefits for a few consumers. Even in aggregate the sum of the proposed budget for these 6 service providers to the EA total \$7.8m or just 60% of EECA's proposed \$13m levy. The value of those service providers to the electricity market and consumers as a whole is not in doubt. The cost of EECA's levy funded electricity efficiency work by comparison is excessive.

If levy funded work continues how can EECA improve outcomes?

29. MEUG appreciates the time by EECA staff and Board to meet with MEUG over the last two months. As discussed we will arrange a meeting of the EECA Board and MEUG Executive

¹⁴ The Commerce Commission has a \$7.222m multi-year appropriation 2014-2019 for Vote Commerce – economic regulation of electricity lines services, refer Commerce Commission, Statement of Performance Expectations, Our plan for 2014/15, p13, document URL <http://www.comcom.govt.nz/dmsdocument/11957> at <http://www.comcom.govt.nz/the-commission/about-us/accountability/>. For the table used in this submission have assumed that is spent equally each year, ie \$7.222m/5 years =

¹⁵ The Commerce Commission approved \$8m for Demand Response (DR) expenditure by Transpower as part of the 5 year Individual Price-Quality Path commencing 1st April 2015. Refer The Commerce Commission decision and reasons paper dated 29th August, document URL <http://www.comcom.govt.nz/dmsdocument/12336> at <http://www.comcom.govt.nz/regulation/industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020/>

¹⁶ This table is sourced from Appendix C of the consultation paper, table 2, p8

Committee next year to continue discussions on how EECA can improve outcomes from the levy funded work.

30. No matter how much effort we and EECA put into improving outcomes we cannot see how EECA will be able to better spend levy payers monies than the levy payers making decisions themselves.
31. There may be other options we could consider such as if levy users can demonstrate they already have electricity efficiency programmes in place then the levy is paid back to them to spend as they see fit. This would overcome the problem where EECA funded programmes have limited ability to contribute towards capital improvements and instead fund consultants. This may be good income for consultants but does not channel a company's cash into the improvements or projects that would have a better payback being undertaken. Whereas if the user had control of this money, they could direct it towards capital for energy efficient projects which is the true hurdle for many companies.

Summary of MEUG submissions

32. In summary MEUG submits:
 - a) The policy foundation for the levy is weak at best and does not warrant a \$13m intervention;
 - b) There is a lack of independent and robust analytical evidence to support EECA's claims of benefits from for past levy funded work;
 - c) The levy funded work programme is disproportionate to the potential market failure and should be scaled back;
 - d) There have been improvements to the management of levy funded work programmes and MEUG intends to work constructively on further improvements. Those are a band aid though on the underlying problem that for most levy payers they are taxed more than any benefit they may receive from EECA's work on levy funded electricity efficiency work; and
 - e) MEUG recommends a progressive scaling down of levy funded electricity efficiency work starting in 2015/16 with a 25% decrease to just under \$10m and further 25% steps to a new baseline funding for core electricity efficiency work funded by levy payers of just over \$3m by 2017/18.
33. Given the materiality of the levy paid by MEUG members, the frustration over several years of gaining no concrete evidence by EECA as to the claimed benefits of monies spent on the levy and the new evidence MEUG has submitted this year that the levy funded work is significantly too high in proportion to various comparator benchmarks, this submission has been copied to the Ministry for Business Innovation and Employment, The Treasury and the Audit Office. MEUG intends to follow up with those departments along with EECA to get a more realistic level for the electricity efficiency levy for 2015/16.

Yours sincerely



Ralph Matthes
Executive Director

cc Ministry for Business Innovation and Employment
cc The Treasury
cc The Audit Office

Appendix: MEUG questions on the proposal and EECA answers

No.	MEUG Question	EECA response
1.	If electricity demand, in physical terms (PJ) is a quarter of total energy consumption (p42) then why is levy funded electricity efficiency expenditure expected to be 40% of total EECA spend (p46)?	<p>EECA's annual levy spend on electricity efficiency programmes is determined by the Minister as per Section 128 (3) of the Electricity Industry Act 2010.</p> <p>The funding provided by the Electricity Levy supports EECA in performing its statutory functions and exercising its powers and duties under the Energy Efficiency and Conservation Act 2000 in relation to the encouragement, promotion, and support of electricity efficiency.</p> <p>EECA allocates its total funding based on the programmes that will deliver the greatest net-benefits to New Zealand on the best return for the money spent. EECA uses a pragmatic, transparent process for evaluating and ranking programmes based on criteria including the need for government intervention, rigorous cost-benefit analysis, and delivering the greatest net-benefits (national benefits to New Zealand's economy, the success of businesses and the health of New Zealanders) that come with energy efficiency improvements.</p> <p>With the necessary permissions obtained, we are happy to meet with you and walk you through some examples of projects undertaken under EECA programmes.</p>
2.	p 42 notes consumers spend \$6.7 b p.a. on electricity. How much do consumers spend on oil sector products?	EECA estimates that New Zealand consumers spend \$11.7 billion on oil products in the transport and business sectors p.a.
3a.	On p43 is the claim that "more than \$600 m a year could readily be saved by further electricity efficiency measures". Please provide the source of this estimate.	EECA's estimate of up to \$600 million p.a. (rising to up to \$870 M by 2035) is based on our in-house calculation of potential electricity savings in the business and residential markets valued at the marginal cost of electricity production (LRMC, see question 10). The calculation reflects actual percentage savings identified and achieved in EECA programmes (such as HVAC and monitoring/targeting projects in business).
3b.	Has EECA estimated the \$ savings that could be made in the transport and petroleum sectors?	EECA's estimate of savings in the transport sector is \$450 million per annum, (rising to \$1.2B per annum by 2035) based on 5% potential savings through driver training and behaviour change plus benefits from fuel efficient tyres. These are valued at the marginal cost of supplying diesel and petrol and do not include potential savings from accelerated alternative technologies such as electric vehicles and a reduction of average vehicle fuel economy.

No.	MEUG Question	EECA response
4.	<p>Page 45 states "... the main barriers to action by these large energy users are a lack of awareness by senior managers of how energy efficiency relates to the strategic objectives of their business and what the benefits are; and a lack of operational capacity to realise those benefits." Please state, using the conventional Treasury approach to cost-benefit-analysis, how these two barriers can be described as market failures in the conventional economic sense?</p>	<p>Market failure has occurred because in spite of energy efficiency technologies having reached a level where they could compete with other business improvement projects on a level footing, the rate of uptake of these technologies is substantially lower than would be expected in an efficient market.</p> <p>Put simply, the 'market' has delivered more efficient technologies at an economic price, but many NZ businesses have not responded in an efficient manner.</p> <p>As such EECA believes that a market failure, or at least substantial market barriers exist, and that intervention to address these is warranted.</p> <p>The two specific barriers that are referred to are those identified by EECA research as the key reasons for slow uptake of economically viable energy efficiency technologies, hence these are the focus of our activities to address the identified market failure.</p>
5.	<p>Please email me the spreadsheets in support of the claimed benefits to date on p44b including the table on that page. Similarly the claimed benefits that will accrue post 2015/16 noted on p 50 and 51.</p>	<p>Table attached</p>
6.	<p>Please provide all recent, that is since this time last year, independent audits or certifications from independent experts that verify EECA's claimed benefits to date.</p>	<p>EECA has robust measurement and evaluation frameworks, and uses a combination of hard metrics and market surveys to assess performance of its programmes. Independent validation of outcomes is undertaken by external parties on large programmes however these contain commercially sensitive information and we are not at liberty to release them.</p> <p>EECA has commissioned Audit NZ to undertake audits of its reporting of programme performance for the 2014/15 year.</p>
7a	<p>Please provide more details on the draft appropriation for products standards and labelling etc that will cost \$4m in 2015/16 (p49).</p>	<p>EECA proposes to spend \$1.2 million in Commercial/Industrial products and \$2.8 million in the Residential products area. Products expenditure includes updating and enforcing minimum energy performance standards along with labelling and information programmes to assist consumers make informed choices. The products programme is EECA's best performing electricity efficiency programme when assessing investment vs electricity efficiency return.</p>

No.	MEUG Question	EECA response
7b	Can you give me a history of how much EECA have spent on these product standard/labelling programmes since they started and any independent expert advice measuring the effectiveness of the standards/labelling.	<p>EECA has spent \$21 million on the products programme since 2002 when Minimum Energy Performance Standards (MEPS) and energy rating labels (MEPL) were introduced. Programme expenditure includes marketing the high efficiency label ENERGY STAR. 39 million products have been sold subject to these measures.</p> <p>EECA's programmes are not independently evaluated due to the legislative constraints that prevent the sharing of commercially sensitive sales data (supplied from industry) with third parties. However, collecting and analysing this data allows EECA to report more accurately on the programme's impacts than would otherwise be possible. Based on sales data, EECA estimates that 14 PJ of energy savings have been achieved by the MEPS and labelling program so far, valued at more than \$400 million in reduced energy costs.</p>
8a	If the lighting programme for 2015/16 (p49) is \$0.75 m and that is part of winding down that work then what is the planned expenditure in later years?	The \$0.75 million is the final programme expenditure specifically for the RightLight programme. Any additional expenditure in subsequent years on lighting will be absorbed in Energywise information delivery.
8b	Can you also give me a breakdown of the expected spend for years beyond 2015/16 the other large programme areas listed on page 49?	No specific programme forecasts have been agreed beyond the 2015/16 financial year.
9.	Please provide evidence of past EECA business programmes that have been successfully socialised to other businesses, ie those other businesses have observed a pilot programme funded by levy payers money and those other businesses have then off their own balance sheet adopted that programme without levy payers support.	<p>EECA seeks replication mainly through showcasing the results of past programmes and project support via business networking forums, training, industry sector initiatives and case studies.</p> <ul style="list-style-type: none"> • EECA has run large energy users' forums over a number of years where energy intensive businesses get together and showcase some of their energy initiatives. The most recent forum was held in Christchurch in August 2014. Over 30 large energy using businesses attended representing \$1 billion of energy spend. Feedback was overwhelming positive. Speakers included Air New Zealand, ANZCO, Carter Holt Harvey, Fonterra, Waikato University and Westpac- all of whom we are currently working with. New partnerships are progressing with large energy users, many as a result of the forum. • We have seen good results through our recent focus on long-term energy management following the success of partnerships with businesses such as

		<p>Sky City, Z-energy, ANZCO Foods and Fletcher Buildings. New partnerships have subsequently been entered into with other large energy users including Talley's, Auckland Airport, and Fonterra.</p> <ul style="list-style-type: none"> • Previous industry sector pilot programmes created industry specific case studies and best practice guides. We worked with Plastics New Zealand, Textiles NZ, Seafood Industry Council, and the Tourism Industry Association New Zealand for example. In the Plastics sector, we supported 34 audits which identified over \$1 million in potential savings. At least half the savings have subsequently been implemented. In the case of the Textiles industry, we worked with Textiles NZ (which representing around 80% of the market) to coordinate and deliver a Textiles energy efficiency project for the sector leverage influential sector players such as Cavalier Bremworth. • Industry training and development is also supported by the levy with topics covering facilities management and commercial buildings for example. Last year we supported capability building and training of over 300 industry stakeholders across all sectors with courses run by Waikato University, EMANZ and others. This is a relatively low-cost, very well received influencing mechanism. • Technology demonstration activities have a key goal to foster wider replication. <p>There are a number of case studies on the EECA website www.eecabusiness.govt.nz/listing/resource/353.</p>
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No.	MEUG Question	EECA response
10.	Footnote 6 (p44) refers to MBIE sourced LPMC of generation of 8.79 c/kWh. Please provide details of that source and why it should be better than the futures market current expectation of (all c/kWh) 7.576 for 2015, 7.666 for 2016 and 7.589 for 2017? (refer attached MRP latest "Gig Guide" for these annualised futures prices).	<p>The LPMC has been taken from MBIE's calculator available at: http://www.med.govt.nz/sectors-industries/energy/energy-modelling/modelling/new-zealands-energy-outlook-electricity-insight/interactive-electricity-generation-cost-model</p> <p>LPMC is used to value the electricity saved as it is a measure of the avoided cost of electricity generated rather than estimated future market price as in the MRP publication. This method of valuation was also used by the Electricity Commission in its valuation of energy efficiency programmes.</p> <p>Your observation that futures price for near years is lower than LPMC estimates is consistent with little or no new generation build over that time period.</p>
11.	Footnote 8 (p44) refers to a 10 year declining model based on prior EC work. I'll wait for the full models requested in question 5 but my guess is this refers to a decaying profile to assume the party receiving the levy funding would have at some point in the future have made the investment themselves. This is important because a criticism we have made in the past is that companies would have made the investment in energy efficiency themselves. The source of the original EC 10 year's assumption may have long disappeared but has EECA any new evidence to support that timeframe? Without evidence it's a guess and we don't think EECA should make claims on benefits based on guesses or Ministers agree setting levies on the same basis either. (I have copied this email to the EA in case they can recollect where the EC got the 10 years assumption).	<p>The "declining model" is a simple levelled cost calculation based on the cost of the intervention and the energy saved over 10 years at a constant level of energy saving each year. It does not imply that the physical energy savings decline over the project life, rather the value is discounted over the project life.</p>

Appendix: MEUG questions on the proposal and EECA answers: Last page of response by EECA

Status		Actual	Actual	F'cast	F'cast
Date Determined			Jun-14	Jul-14	Oct-14
Year		2012-13	2013-14	2014-15	2015-16
Commercial	GWh pa	61	23	23	
	MW demand	9	3	3	
Industrial (motors, dairy etc)	GWh pa	53	38	38	150
	MW demand	7	5	5	21
Residential (Rightlight, towel rail timers, Energy Spot etc)	GWh pa	83	83	83	116
	MW demand	42	42	42	58
Products	GWh pa		183	183	105
	MW demand		46	46	26
Total incremental (pa)	GWh pa	196	327	327	371
	MW demand	84	96	96	105
Cumulative	GWh pa	1169	1497	1824	2195
	MW demand	445	541	637	742
Value of Energy Savings \$ million/10 years					
Incremental Savings			191		216
Cumulative Savings			872		1278

Discount Rate	8%
Period	10
Electricity Price \$/kWh	0.087

	MW/GWh Ratio
Lighting Residential	0.50
Industrial and Commercial	0.14
Products	0.25