Major Electricity Users' Group

19 December 2019

Scott Gulliver
Ministry for the Environment
By email to EAFreview@mfe.govt.nz

Dear Scott

Electricity Allocation Factor Review

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Ministry for the Environment issues paper The New Zealand Emissions Trading Scheme: Modelling the Electricity Allocation Factor (EAF), published 18th November 2019.[1]
2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.
3. The following sections respond to the questions in the issues paper. This submission should not be construed as agreement to the process proposed in the issues paper.
4. The responses are consistent with the views of MEUG in our letter to the Minister on 28th November expressing disappointment at the lack of notice on this consultation and a concern the Ministry may have a predetermined view on the best methodology for estimating a change to the EAF. That letter is appended to this submission.

Question 1 Which modelling parameters and values do you agree with? Why?

5. We are unsure how the modelling will use the parameter "Review period" that has a recommended value "Review the EAF at least every five years and preferably every three years." Perhaps this isn't a model input parameter but rather a decision on how to interpret model scenario outputs, i.e. the forecast range of EAF for the next 3-years may be less volatile and or within a closer band than a 5-year forecast. If so, this leads to the question of how will the Ministry decide to weigh the various scenarios?
6. As explained in response to question 3, MEUG does not agree that the review should be confined to repeating the modelling methodology of the prior review.

[1] https://www.eeca.govt.nz/assets/Resources-EECA/corporate-strategic/2020-21-Levies-Consultation-Document-with-2018-19-report.pdf

Question 2 Which modelling parameters and values do you not agree with? Why?

7. It would be useful to test the parameter "Retirements" assuming TCC is retired before the 10-year horizon of the proposed modelling.[2]

8. For the parameter "Gas" we think a plausible scenario over the next 10-years is for the rate of change in gas prices to exceed PPI. The driver for this being an increasingly tight gas supply market driven by the government's announcement in April 2018 to restrict future offshore and onshore oil and gas exploration. This policy direction was not considered in the review in 2011 and change in EAF implemented effective 1st January 2013.

9. As an aside, a perverse outcome of the shortening gas market may lead to the Rankine units staying in the generation fleet longer than they might otherwise leading potentially to the EAF trending upwards.

Question 3 Are there modelling parameters and values that are missing? What are they?

10. The electricity market last year and this year has seen:

    - the extremes of low and high inflows,
    - the criticality of gas supply to gas-fired generation emerge for both electricity security of supply and the effect of gas scarcity prices leading to increases in electricity spot and hedge prices; and
    - the value of lower cost, readily accessible and flexible coal for the Rankine units.

11. Some have postulated such volatility in hydro inflows may become the new normal with climate change. The ICCC also identified the criticality of thermal supply to the electricity sector in the future. It is therefore important in setting a new EAF that as current as possible historic inflow and observed market offer and price data is used. We do not want to repeat one of the problems with the Scientia analysis that used only 2016 and 2017 data hence failing to capture important more recent trends. Use of 2016 and 2017 actual data may have unwittingly set expectations by decision makers that a major downwards step change is needed to the EAF.[3]

12. If, as we suggest in the response to the next question, the approaches to estimating EAF in this and future reviews may change from that used in 2011, then other parameters may emerge that need to be estimated.

---

[2] Contact Energy will decide on whether to proceed with a major maintenance of TCC in 2021 or to retire the plant.

[3] Taking more recent data the trend downwards is not as clear. For example the more recent actual generation supply mix reported by MBIE in the latest quarterly statistics (https://www.mbie.govt.nz/assets/new-zealand-energy-quarterly-september-2019-quarter.pdf) reported "Renewable sources accounted for 80.8 per cent of electricity generation this quarter, a decrease from 84.8 percent from the same quarter last year." Coal-fired generation in calendar year 2018 (891 GWh) was 72% higher than 2017 (517 GWh) and 120% higher than 2016 (404 GWh). The Scientia analysis only considered 2016 and 2017.

Question 4 When should the EAF be reviewed?

13. The EAF Contact Group review in 2011 recommended "an EAF recommendation should be enduring until significant events occur warranting a re-assessment." Our expectation to date had been the next EAF review would be conducted in a collaborative and inclusive manner the same as the 2011 review. Accordingly, we expected the Ministry would have discussed with affected and interested parties if significant events had occurred that warranted a re-assessment. The issues paper dispelled our expectations of a collaborative and inclusive approach by presuming significant events had occurred and tabling expert reports to support that. The subsequent publication of other earlier and relevant expert reports by the Ministry that had some divergent views on how the EAF could be estimated has undermined our confidence in the Ministry's unilateral view that events have changed to justify a review of the EAF.

14. Nevertheless, the need for a review has been steadily increasing because of the time elapsed since the last review. Offsetting this growing need to review the EAF has been the demand on government and EITE business resources to focus on other aspects of the ETS and overarching climate change policy (e.g. ZCB) regime. As decisions and implementation on the latter starts to emerge then it makes sense to tie-in and integrate the EAF mechanism.

15. As explained in the letter of 28th November we think a review of the EAF needs to be considered as part of the total package of the changes to the ETS and other climate change policy settings. It's not simply a matter of when should the EAF be reviewed? it's a question of what should the scope of the EAF review be?

16. The current review of the EAF should consider if now is also the appropriate time to consider alternative calculation methods and or more frequent reviews. The current EAF review mechanism requires complex optimisation or simulation forecast models where both the factual and counterfactual have wide variability including uncertainty in the timing of large step changes in mix of the generation portfolio. As suggested in the letter to the Minister of 28th November perhaps a more frequent, even annual, estimation of the "actual/modelled" observed historic trend with a smoothing mechanism may give greater confidence to both the government and EITE businesses. Work needs to be undertaken to consider this and any other options relative to continuing the status quo approach.

17. There is also a question of whether in the longer term the Climate Change Commission rather than the Ministry should provide advice to the Minister on changes to the EAF. The Commission would seem to be the appropriate entity in the near and longer term to advise Ministers on a holistic approach for emissions budgets and industrial allocations including integrating proposals on EAF. We need to be careful not to propose a change to the EAF approach and frequency that may either unnecessarily bind the Commission next year when preparing advice on the first set of emissions budgets or lead to volatility in the EAF. We need to avoid the risk of a change on 1st January 2021 based on Ministry advice and then a year later a different EAF based on advice from the Commission.

Question 5 Are you interested in attending a workshop in February 2020 on the electricity market modelling of the EAF?

18. Yes, a workshop is a good idea where a range of interested parties could compare views with officials. Due to other commitments we would prefer the workshop to be either in the last week of February or early March. Stuart Frazer, an advisor to MEUG, and I would welcome an opportunity in January to meet with the Ministry to elaborate and answer any questions related to this submission. Such a discussion could assist structure an agenda for the workshop.

Yours sincerely

Ralph Matthes
Executive Director

Appendix attached to this submission:

MEUG letter to Hon James Shaw, Minister for Climate Change, "Updating the Electricity Allocation Factor" 28th November 2019.

Major Electricity Users' Group

28 November 2019

Hon James Shaw
Minister for Climate Change
Parliament Buildings

Dear Minister

Updating the Electricity Allocation Factor

The Electricity Allocation Factor (EAF) is an important and complex feature of the allocation of NZUs to EITE businesses. It is accepted that it needs to be reviewed periodically, and guidance was published in 2012 that *"an EAF recommendation should be enduring until significant events occur warranting a re-assessment"*[i].

Disappointingly, throughout this year the Ministry for the Environment (MfE) has been telling stakeholders, including MEUG, that it was not intending to review EAF – despite privately commissioning five external pieces of advice on the EAF between April 2015 and June 2019 on this subject and without consulting interested parties. No advance notice was given of the just commenced consultation on a review of the EAF which, given what MfE has been telling stakeholders, came as a surprise to many.

MfE has been telling interested parties one thing, while planning and preparing to do the exact opposite. There has been no dialogue on whether significant events warranting a re-assessment have occurred.

Businesses have been trying to calculate the impact of proposed ETS changes, particularly the phasedown of industrial allocation units, on the assumption the EAF would remain unchanged at least in the short term. They were doing that on the basis MfE has been telling them the EAF would not be changing in the short term. Those calculations have gone a long way towards initial views regarding the proposed phasedown changes and reassured some businesses about the reasonableness of what the Government has proposed. If the EAF changes in the short term, those calculations will be rendered meaningless and significant unpredictability inserted into the Government's reform process.

For such a material issue, it is also surprising that the review of the EAF is not part of the Climate Change Commission's scope of work. For electricity intensive firms, small changes in the EAF may far outweigh the impact of phasedown rates.

We have greatly appreciated your transparency and willingness to engage on climate change related issues throughout 2018 and 2019, which has helped give us and our members confidence in engaging with government. That confidence is undermined when MfE conducts itself as it has over the EAF.

Given the possible material impact of changing the EAF if some of the scenarios canvassed in the issues paper are realised, we believe officials should have engaged earlier with affected parties on the scope of the review before commissioning external advice. Given the well-known opinions on the EAF of some of those MfE has engaged, there is a risk the Ministry has a predetermined view on the best methodology for estimating a change to the EAF that will lead to changes effective 1st January 2021.

There may be alternative approaches to estimating EAF that should be considered.

With so much up in the air in the electricity sector, one option might be to wait until after 2022 before changing the EAF. By 2022 the Huntly Rankine swaption contract ends, we will probably have clarity on whether or not Rio Tinto will exit, and Contact Energy will have decided whether to make a major maintenance investment in TCC or to close TCC. Between now and 2023 there is a case for sticking with the existing EAF unless there is evidence of a material change expected over the next three years.

Regardless of whether the Government is minded to consider the above option, we think an important step is for the Government to engage with interested parties on what might be the best approach to take with the EAF.

The EAF can potentially change quite significantly with recommendations that it should now be reviewed every three or five years, resulting in significant and unpredictable revenue shocks to business. A better approach might be calculating the EAF on the basis of a rolling historical average which could provide predictability and smooth out revenue impacts on business. Such an approach would provide businesses with the ability to plan and prepare. This option was highlighted in an NZIER report to MfE from 2015 but only released by MFE yesterday:

> *"An econometric approach could also now be considered. This was discarded back in 2011 because of insufficient data. However, with several years of data this is now a feasible avenue to explore."*

Capital investments, including those to reduce emissions, are often made over 30+ year periods. The uncertainty associated with unpredictable and volatile regulatory costs undermines the confidence needed to make such investment decisions. Removal of such unpredictability and volatility in industrial allocation will also benefit the Crown.

Instead, the proposed next step of a "modelling results workshop" in late February 2020 suggests feedback in this consultation round is solely on modelling parameters so a pre-determined modelling approach can be applied and results then considered.

A better first step would have been consultation on whether the current approach is the best way to allocate costs. MfE should also have consulted interested parties to test and gain a common view on the modelling approach itself.

Decisions on a change in the EAF should be considered in conjunction with other proposed changes in allocation of NZUs and transitional paths to avoid revenue shock. It may be that transitional measures and the absolute level of NZUs allocation may lead to the preferred process and methodology to set the EAF in the future that is different from, but within the estimated values, of prior modelling approaches.

Yours sincerely

John Harbord
Chair

CC Hon Dr Megan Woods, Minister of Energy and Resources

[1] https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/eaf-factsheet.doc