



Review of the Energy Efficiency Opportunities (Repeal) Bill 2014

Introduction

The Energy Change Institute (ECI) and Climate Change Institute (CCI) at the Australian National University are pleased to provide a submission to the Senate Review of the Energy Efficiency Opportunities (Repeal) Bill 2014.

The ECI provides authoritative leadership in Energy Change research and education through a broad portfolio ranging from the science and engineering of energy generation and energy efficiency, to energy regulation, economics, sociology and policy. The ECI is both technology and policy neutral.

The ECI comprises more than 200 staff and PhD students from all 7 Colleges of the University, plus around \$100 million in infrastructure and facilities, supported by a major portfolio of external grant funding.

The CCI brings together cutting edge climate change research – from fundamental climate science to economics, policy, law and the humanities. It contributes to climate change solutions through innovative, interdisciplinary approaches to research and education, drawing on an interactive academic community representing the wealth of expertise across the University's seven colleges, and to connect our work to government, the private sector and the general public.

Key Recommendations

This Senate Inquiry review of the Energy Efficiency Opportunities (Repeal) Bill 2014 refers to the Commonwealth decision to repeal The Energy Efficiency Opportunities (EEO) ACT (2006) and related Energy Efficiency Opportunities (EEO) Program. The ANU Energy Change Institute and the ANU Climate Change Institute recommend that the Senate does not repeal the 2006 EEO Act.

We recommend that the 2006 EEO Act be retained and the EEO Program continued for another cycle in line with recommendations from the 2013 external review.¹

We recommend that the 2006 Energy Efficiency Opportunities Act be extended to:

- continue to address the same significant information and organisational failures that led the 2004 Energy White Paper to recommend its creation in the first place. (See Part 1 below)

- ensure that the largest energy using organisations in Australia realise an additional AUD\$1.2 billion in energy cost savings ² in addition to the \$800+ million already achieved. (See Part 2 below)
- encourage business to realise 30-50% energy cost savings in new large scale developments. The EEO Act 2006 is the only legislation that encourages and helps business to embed energy efficiency in new large developments. (See Part 3 below)

As the Productivity Commission has found, there is a role for government programs like the EEO Program, stating that:

“The most important barriers to the adoption of privately cost-effective energy efficiency improvements appear to be a failure in the provision of information; ... and the different incentives facing those who take decisions about installing energy-efficient products and those who might benefit from using them. ... Some government intervention to address these problems is appropriate.”³

We are concerned that these facts are not adequately reflected in the Explanatory Memorandum (EM), which instead makes a number claims which are clearly out of date or based on false assumptions (see Part 4 below for further explanation). For instance, the claim made by the EM, “That the energy market has also changed – increasing energy prices, in particular electricity, mean the need for such a regulatory response to improve energy management is no longer required” ignores the fact that many informational and organisational failures and skills gaps still exist (see Part 1 below). Due to these failures, the 2013 external review⁴ of the EEO Act and the EEO program found around 25 percent of future identified energy efficiency savings could reasonably be attributed to the EEO Program if it were to continue.

A continuation of the EEO Act would help the Government meet commitments such as:

- ensuring business has lower overall energy costs
- achieving at lowest cost the 5% by 2020 greenhouse gas reduction target for Australia; and
- inclusion of energy efficiency in the Brisbane G20 agenda recently agreed with President Obama.

We therefore support the recommendation of the independent 2013 review⁵ that the EEO Act and EEO Program be continued. Specifically the 2013 review found that:

“The EEO Program to date has delivered benefits to participants well in excess of their costs...The EEO Program (targets) addressing information type market failures. Such failures, while reduced, still remain an important barrier and for this reason the EEO Program should complete its second cycle.”⁶

We maintain that reversion to previous behaviour will occur if the EEO Program is not continued, and that because of the significant gains already achieved, ongoing compliance costs will be relatively low. Gains in present energy efficiency will cost less than delaying efficiency gains into the future, when more expensive measures will be required to rapidly reduce emissions.

Supporting Evidence

Part 1 – The original aims of the EEO ACT (2006) continue to justify its continuation

The EEO Act and EEO program were initiated by the Howard Government after a long and rigorous policy review process. It was based on the following reasons, none of which have changed significantly, and which continue to justify continuation of the EEO Act and EEO program:

1. Modern microeconomics shows that due to market, information and organisational failures, few businesses are operating at optimal energy efficiency levels⁷.
2. The Business Council of Australia has shown that short-term pressures to maximise quarterly profits from the investment community are preventing firms from making rational investments (such as energy efficiency investments) that would pay back within 1-2 years (or longer).⁷
3. Government energy efficiency programs in Australia and around the world, working with a sample of medium to large businesses, have found that there was potential to improve energy efficiency between 20-50% in existing and new developments because:
 - 3.1 The field of energy efficiency, due to innovations in technology is moving so fast that every 6-12 months best practice has significantly advanced. Few companies have the internal capacity and expertise to keep up with this.
 - 3.2 An inability to take a whole of system approach to identifying and implementing energy efficiency opportunities.
 - 3.3 Lack of use of real time metering and monitoring to enable dynamic system optimisation of energy usage in plants, mines and buildings.
 - 3.4 Lack of inclusion of energy efficiency considerations in the key phases – namely the preliminary design, procurement and contracting, detailed design, construction and implementation phases – of new developments and extensions. Recent work with Australian businesses has found that this will reduce operational energy costs by 30-50%.
 - 3.5 From 3.1-3, lack of effective information on energy efficiency opportunities reaching boards and CEOs in a timely fashion upon which to base investment decisions for existing and new developments.

There is still significant need to make progress on many of these (especially 3.1-3.4) and there is a significant risk if the EEO Act is repealed that Australia will go backwards on 3.5. A second cycle of the EEO Act would help to preserve and make still greater progress on what gains have been achieved in the first cycle of this program.

Part 2 - The EEO Act and Program enhance business profits and competitiveness

The formal 5 year review of the EEO program⁸ found that, as of 30 June 2011, EEO Program business participants reported that they had

“Identified opportunities that could result in annual energy savings of 164.2 Petajoules (PJ). Of these, 88.8 PJ were adopted⁹ achieving annual net financial benefit of \$808 million, ... with 2 year or less return on investment. Results reported by EEO Program participants...reduced annual national emissions by 1.5%... at an average abatement cost of just under minus \$100 per tonne of CO₂e. This means for each tonne of carbon abated, a net cost saving of just under \$100 is achieved...With 23% of identified

opportunities remaining under investigation, and the recent extension of the EEO Program to the generation sector, new developments and expansions, there is still significant potential for further energy efficiency opportunities to be identified and adopted through application of the EEO Program.”¹⁰

If the government and Senate approve a new phase of this program, Department of Industry commissioned studies¹¹ show that there are between 10-11% of energy efficiency opportunities untapped by all major energy using business sectors in existing mines, plants, commercial buildings and transport systems. This provides potentially another \$1.2 billion per annum in additional potential cost savings to the largest energy using businesses and organisations in Australia.¹² This potential for further energy cost savings only refers to existing plants and mines and buildings.

Part 3 – Opportunities to increase profits by embedding energy efficiency into new builds

The potential for energy efficiency gains in new developments has never been fully mapped, but it is also significant. For instance, if profit margins on a long-term asset are 5% and energy is 20% of operational costs, a 25% improvement in energy efficiency will double the profit of the life of that asset and project. A recent modification to the 2006 EEO Act now, for the first time, requires and helps businesses to embed energy efficiency in the major phases - design, procurement, contracting, construction and implementation - of new high energy using projects in Australia to increase their profits significantly over the lifetime of projects. These energy efficiency opportunities in new developments are amongst the most profitable (negative cost) means of improving energy productivity and reducing greenhouse gas emissions available to business in Australia. They can help the Government meet its 2020 greenhouse gas targets in a way that also helps the economy.

Part 4 – A list of concerns regarding claims made in the EM for repealing this Act

Finally, the EEO Act and EEO program should also not be repealed because the justifications in the EM suffer from one or more of the following flaws:

- Being significantly out of date. For instance, the EM's claim that the EEO Act duplicates similar programs at the State and Territory Government level is not true. The repealing of the Victorian Energy Efficiency Target and phasing out of the program by 2015 mean that, by the end of 2015, there will be no longer any similar programs.
- Not sufficiently recognising that the EEO program has evolved significantly to include new elements such as the (i) EEO focus on new developments (ii) coverage of large energy generators and non-business energy users such as universities.
- Not adequately acknowledging EEO program reforms over the last three years, as a result of independent reviews, to reduce compliance costs. Nor adequately recognising that compliance costs are very small relative to the financial gains firms have achieved from smarter investment in energy efficiency opportunities. Further, in the future, the improved performance of companies will result in lower compliance costs than were incurred at the beginning of the Program.
- Contradicting findings of all government funded independent reviews of the EEO program that find that the program is addressing real market and information failures.

Based on the arguments presented in Parts 1-4 above, we agree with the 2013 formal external review¹³ that the EEO ACT and Program should be extended for another cycle.

References

¹ ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>

² ClimateWorks Australia (2013) Industrial Energy Efficiency Analysis Project – Findings and Reports at <http://www.climateworksaustralia.org/project/current/industrial-energy-efficiency-data-analysis>

³ Productivity Commission quote cited in ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>

⁴ ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>

⁵ ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>

⁶ ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>

⁷ Business Council of Australia (2004) Beyond the Horizon: Short-Termism in Australia. BCA at <http://www.bca.com.au/publications/beyond-the-horizon-short-termism-in-australia>

⁸ Department of Industry (2011) EEO Program – The First Five Years: 2006-11 – Overview. Department of Industry at <https://eeo.govspace.gov.au/files/2013/12/Overview-5-YR-REPORT.pdf>

⁹ Adopted means opportunities either implemented, implementation commenced or reported by the corporation as to be implemented.

¹⁰ Department of Industry (2011) EEO Program – The First Five Years: 2006-11 – Overview. Department of Industry at <https://eeo.govspace.gov.au/files/2013/12/Overview-5-YR-REPORT.pdf>

¹¹ ClimateWorks Australia (2013) Industrial Energy Efficiency Analysis Project – Findings and Reports at <http://www.climateworksaustralia.org/project/current/industrial-energy-efficiency-data-analysis>

¹² ClimateWorks Australia (2013) Industrial Energy Efficiency Analysis Project – Findings and Reports at <http://www.climateworksaustralia.org/project/current/industrial-energy-efficiency-data-analysis>

¹³ ACIL Tasman (2013) Energy Efficiency Opportunities Program End of First Full Five Year Cycle Evaluation – Final Report for the Department of Industry at <http://eeo.govspace.gov.au/files/2013/05/EEO-Program-Review-Final-Report.pdf>