



## COVER SHEET FOR SUBMISSIONS EMISSIONS REDUCTION FUND GREEN PAPER

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For further information, please call 1800 852 974.

## Emissions Reduction Fund (ERF)

### Green Paper submission

#### *Overview*

**This is a joint submission by National Electrical and Communications Association (NECA), GE Lighting Australia Pty Ltd (GEL) and Energy Makeovers Pty Ltd (EM).**

Our comments are offered in the context of an established partnership and commitment to deliver a nationwide LED downlight upgrade service to replace existing halogen downlights in Australian households and businesses over the next 5 to 10 years.

The National Electrical and Communications Association (NECA) is the national voice of the electro-technology contracting industry. NECA is the only association that represents the interests of electrical and communications contractors Australia-wide, from employers and business people to technicians. NECA's services are tailored to the unique needs of contractors working in the electro-technology industry. We save members time and money by providing timely information, advice and practical tools to make business easier, safer and more cost-effective. More than 5,000 members across Australia now recognise and enjoy the benefits of membership of NECA. With offices in every state, NECA employs specialists in industrial relations, occupational health and safety, management, education and training, human resources and technology who are on-hand to offer advice on a range of topics and provide representation and support in industrial relations matters. NECA has representatives on many Standards Australia technical committees and is also a registered organisation in federal and state industrial jurisdictions. The Association actively represents the needs and entitlements of contractors at all levels of government and industry, ensuring members' needs are heard. We regularly provide our national member base with up-to-date industry-relevant information including current training, occupational health and safety, industrial and legislative requirements.

<http://www.neca.asn.au>

<http://www.ecosmartelectricians.com.au>

Energy Makeovers is a wholly owned and operated Australian energy services company dedicated to assisting families and businesses achieve a sustainable future. Energy Makeovers' focus is to provide and promote practical information, more efficient use of energy and renewable energy to residential, commercial and industrial building owners and tenants.

<http://www.energymakeovers.com.au>

GE Lighting is the professional division of General Electric specializing in lighting solutions all around the world. GE was born from the invention of the world's first affordable incandescent lamp. More than a century later, GE's lighting business still brings light to the world, helping advance new technologies such as fluorescents and light-emitting diodes (LEDs) that operate with more efficiency, less cost and less environmental impact than ever before.

<http://www.gelighting.com.au>

To achieve Australia's unconditional 2020 target of 5 per cent below 2000 levels, Australia must reduce its emissions by 131 Mt CO<sub>2</sub>-e in 2020.<sup>1</sup>

There are currently an estimated 200 million halogen downlights in service in Australia. Replacement of 100% of these inefficient luminaires with efficient 7.5W GE LED GU10 lamps would save an estimated 32TWh per annum and abate around 24 million tonnes of CO<sub>2</sub>-e emissions per year, or up to 20% of Australia's abatement task to 2020.

Efficient lighting programs for buildings such as the program proposed by NECA, EM and GE are amongst the lowest cost abatement opportunities available to decarbonise the Australian economy. This program will benefit consumers directly through significant reductions in electricity consumption and their power bills. A major barrier to the uptake of halogen downlight replacement with LEDs for households and businesses is the upfront cost of implementation. NECA, EM and GE view the ERF as an important opportunity to significantly boost the volume uptake of halogen downlight replacement by LEDs through funding an additional price discount to end consumers.

Risk mitigation is a paramount consideration in a program of this nature where householders and small businesses are directly impacted. NECA, EM and GE have designed the program to mitigate risk to the lowest level possible by exclusively using highly trained NECA EcoSmart electricians to install a purpose-designed GE LED 7.5W GU10 downlight with new fittings to deliver a completely new, guaranteed luminaire solution. A Certificate of Electrical Safety will be provided for every completed installation. NECA will manage installation risk through training and qualification of EcoSmart electricians, while EM will manage the ERF regulatory and compliance processes, and GE Lighting (as the consortium's technology partner) will provide the highest quality LED downlights with the highest standards of manufacturing quality assurance. Furthermore, as halogen downlights operate at a high temperature (up to 370°C), they can pose a fire risk to homes and businesses especially if they are not correctly installed or maintained. LEDs lamps operate at a much lower temperature (60-80°C) and would effectively eliminate the risk of ceiling fires.

*Views are sought on opportunities for large scale, low-cost emissions reductions, including estimates of potential reductions.*

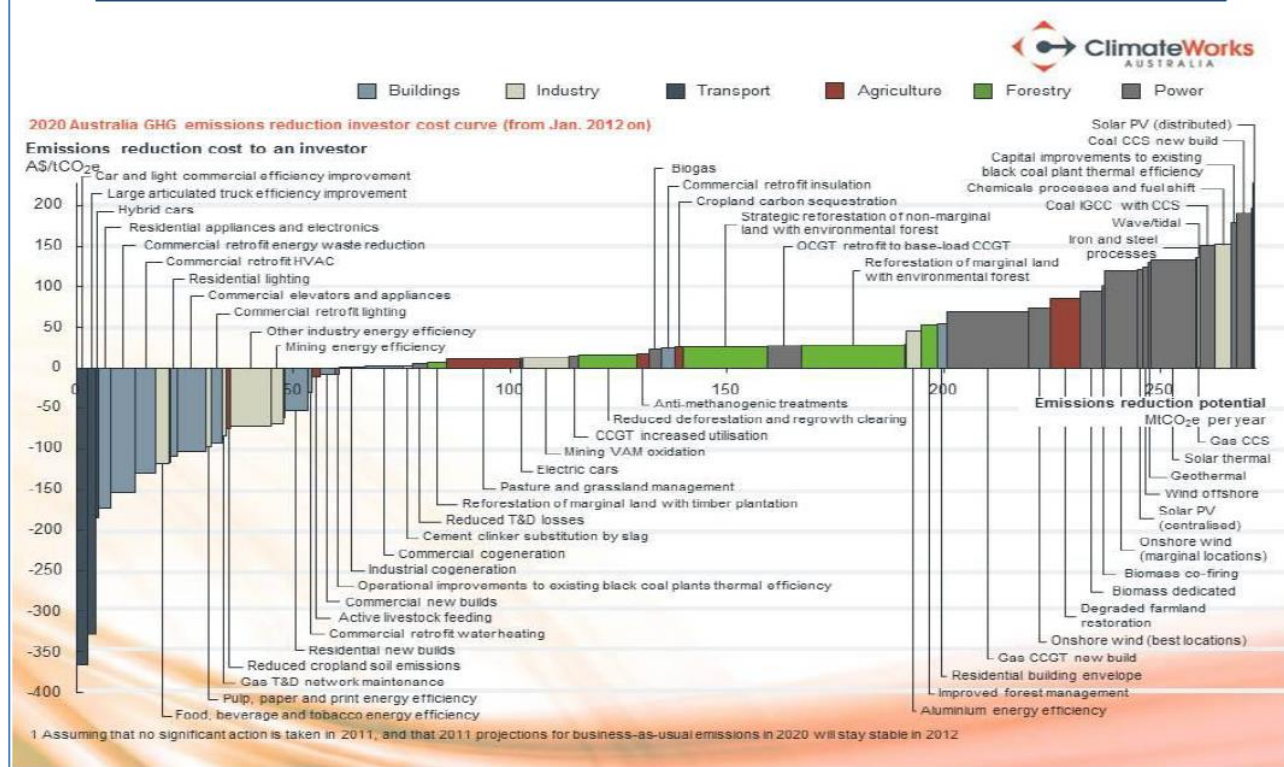
Efficient lighting improvements for buildings such as the program being proposed by NECA, EM and GE is amongst the lowest cost abatement opportunities available to decarbonise the Australian economy.

P.13 of the ERF Green Paper shows the emission abatement cost curve developed by Climate Works in 2011 as part of their *Low Carbon Growth Plan* for Australia (see Figure 1 below).

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<sup>1</sup> <http://www.climatechange.gov.au/reducing-carbon/reducing-australias-emissions/australias-emissions-projections>

Figure 1.5: ClimateWorks cost curve



The ERF has the potential to accelerate the energy efficient retrofit of building lighting on a national basis, thereby lifting the overall level of lighting efficiency in the country and abating greenhouse on a large scale.

There are currently an estimated 200 million halogen downlights in service in Australia. Replacement of 100% of these inefficient luminaires with efficient 7.5W GE LED GU10 lamps would save an estimated 32TWh per annum and abate around 24 million tonnes of CO<sub>2</sub>e emissions per year, or up to 20% of Australia's abatement task in 2020.

One of the major barriers to the uptake of our national halogen downlight replacement program for households and businesses is the upfront cost of implementation. NECA, EM and GE view the ERF as an important opportunity to significantly boost the volume uptake of our proposed program by funding an additional price discount to end consumers.

Risk mitigation is a paramount consideration in a program of this nature, especially where householders and small businesses are directly impacted. NECA, EM and GE have designed the program to mitigate risk to the lowest level possible by using highly trained NECA EcoSmart electricians to install a purpose-designed high quality GE LED 7.5W GU10 downlight with new fittings to deliver a completely new, guaranteed luminaire solution. Upon completion of every installation, a Certificate of Electrical Safety will be provided to the customer. EM, as an experienced participant in the VEET and ESS schemes, will manage the ERF regulatory and compliance processes.

ERF funding would enable a direct consumer price reduction to be applied for the LED retrofit service. The proposed ERF price discount would be *in addition* to the state-based schemes' price discounts in Victoria, New South Wales and South Australia. The resultant incremental ERF abatement would be additional to that achieved under the state-based energy efficiency schemes.

Importantly, this program also offers the opportunity for small businesses and households to participate by taking direct action to reduce their own electricity bills and carbon footprints.

*Views are sought on how best to: 1) ensure that emissions reductions are genuine; 2) develop methods for calculating emissions reductions from priority activities; 3) facilitate the aggregation of emissions reductions across projects and activities.*

Emissions reductions can be achieved both at a large scale, for example at industrial facilities such as power generation plants, or at the small scale, by households and small businesses. Allowing projects at the small scale to be funded through the ERF will empower households and small businesses to participate in taking direct action to reduce their own emissions.

NECA, EM and GE propose that the ERF be split into large scale and small scale projects, similar to the split of the RET into the Large scale Renewable Energy Target (LRET) and Small scale Renewable Energy Scheme (SRES). A separate ERF category for small scale projects would enable small businesses, households and farm groups to access the ERF in a practical and cost effective way, via registered small scale ERF recipients.

The Energy Saving Scheme (ESS) in NSW and VEET scheme currently calculate the emissions reductions from several small scale activities through the deeming method. This allows for low transaction costs for the scheme participants and small scale abatement activities to be scaled up quickly to deliver large abatement. We propose that VEET and ESS deemed methodologies be adopted for small scale ERF projects. These schemes are proven and have operated successfully for years. This is also similar to the deeming of renewable energy generation as conducted in the SRES scheme.

To minimise project risk, our proposed LED downlight retrofit service would exclusively employ NECA EcoSmart electricians to carry out the replacement of halogen downlights with GE LED downlights in households and businesses. The EcoSmart electricians would work with Energy Makeovers, an accredited participant of both the VEET and ESS schemes, to aggregate the projects and bid for ERF funding as a collective entity. GE will supply the highest quality LED lamp, with a warranty of 6 year for residential customers and 3 years for commercial customers.

*Views are sought on regulatory reform opportunities that would complement the ERF.*

Future harmonisation and nation-wide expansion of the Victorian and New South Wales 'cap and trade' energy efficiency certificate schemes could potentially complement the ERF and allow the learnings from the administration of the VEET and ESS schemes to be leveraged by the ERF to encourage small scale abatement project development and aggregation across Australia.

*Views are sought on how best to: 1) facilitate early participation in the ERF; 2) operate an efficient auction process to secure lowest-cost emissions reductions.*

1) Adoption of existing VEET and ESS scheme deeming methodologies would save considerable ERF scheme design effort and assist the ERF target start-up date of 1/7/14 to be met. A registration process should be implemented to test the 'fit and proper person' status of applicants to the auctions for the registration of organisations as an Approved Person, to help avoid unsuitable participants from bidding into the auctions,

maintain the integrity of the scheme and the confidence of the ERF participants, the public and government.

2) Consistent with our proposed split of the ERF into large scale and small scale projects, we propose that a separate tender process be adopted for large scale and small scale projects. This will help ensure that the ERF process delivers the lowest-cost emission reductions from a diversified range of activities with reduced overall risk of not delivering on the overall emissions reductions target. For example, a very large scale project may include a regional reforestation project, and a small scale project may involve the retrofit of residential and commercial building lighting and appliances. Should the deforestation project fail to deliver the emissions promised then the volume of small scale building efficiency projects can be increased to make up the shortfall.

*Views are sought on how best to provide: 1) funding certainty for businesses; 2) confidence that projected emissions reductions will be delivered.*

In the VEET scheme, accredited persons typically execute forward contracts to supply obligated parties (electricity retailers) with carbon abatement certificates in accordance with an agreed delivery schedule. These contracts provide funding certainty for accredited persons to conduct the abatement activities.

In the ERF, successful bidders could execute similar forward contracts with the scheme administrator (eg. CER) to ensure timely delivery of emissions reductions. ERF payments would be made to registered participants upon presenting evidence of carbon abatement certificate creation in the relevant state-based energy efficiency scheme (or equivalent security where no state-based energy efficiency scheme exists).

The forward contracting process, for both the proposed large and small scale projects, should be streamlined, standardised process to minimise the administrative burden.

*Views are sought on: 1) the coverage of the safeguard mechanism; 2) how baselines could most easily be set to effectively limit increases in historical BAU emissions; 3) the treatment of new entrants and significant expansions, including definitions of best practice; 4) compliance options in the event that baselines are exceeded.*

No comment; deeming methodology does not require baselines to be established.

*Views are sought on: 1) options for streamlining the Carbon Farming Initiative; 2) how best to encourage the uptake of land sector activities.*

No comment.

*Views are sought on the proposed governance arrangements for ERF to be administered by the CER.*

NECA, EM and GE view the Clean Energy Regulator (CER) as the most appropriate federal regulatory body to administer the ERF, due to its ongoing administration of similar programs such as the Carbon Farming Initiative, National Greenhouse and Energy Reporting (NGER) scheme, and the LRET and SRES programs and

associated certificate markets via the REC Registry. The CER also has experience and expertise in managing carbon markets through its current administration of the Carbon Pricing Mechanism.

NECA, EM and GE propose the ERF be split into small scale and large scale projects, which will be similar in nature to the CER's current administration of the LRET and SRES programs. In this case the CER's experience in managing the RET will be highly relevant to administration of the ERF.

*Views are sought on the timing and conduct of a review of the ERF to inform post-2020 policy.*

Reviews should be conducted in conjunction with state governments, potentially through the COAG process, as required.

**Signed by:**



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CEO

NECA



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Energy Makeovers Pty Ltd



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