energy savings
Industry Association

ESIA Submission:
2020 Review of the Emission Reduction Fund

Consultation Paper

For Climate Change Authority, Commonwealth of Australia

22 May 2020 (Extension provided)

Submitted to Climate Change Authority submission@climatechangeauthority.gov.au and enquiries@climatechangeauthority.gov.au

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Introduction

The Energy Savings Industry Association (ESIA) is pleased to make this submission to the Climate Change Authority (CCA) public consultation paper released during April 2020: 2020 Review of the Emissions Reduction Fund (ERF).

The ESIA requests for participate further in this consultation to complement this written submission by being part of follow up discussions.

We understand that this review is considering the overall performance of the ERF and is open to considering matters including views on how the ERF is performing and/or how its operation could be improved. Refer to http://www.climatechangeauthority.gov.au/consultations.

As suggested at the CCA consultation webpage, the ESIA has chosen to provide recent relevant submissions to previous reviews as part of this submission as they provide significant useful detailed recommendations. These include:

1. ESIA Submission to the Expert Panel, Opportunities for further abatement ERF Discussion Paper - 30 Oct 2019 (*) (The King Review)
2. ESIA Submission to the Victorian Government - VEU Lighting Activities Issues Paper Dec 2019 - 31 Jan 2020 27 Feb plus Addendum excluding Appendix
3. ESIA Submission to the Victorian Government - VEU RIS VEET Target Amendment Reg's 2020 - 31 Jan 2020
4. ESIA Submission to the NSW Government – Energy Savings Scheme Statutory Review - 20 May 2020

   (All of these submissions are also available at https://esia.asn.au/publications/submissions)

Excerpt from recent submission

(*) Please note, we emphasise the following excerpt from the ESIA Submission to the Expert Panel, pp2-3. **We now make an additional, new suggestion as italicised below.**

General points for consideration to improve the ERF for energy efficiency projects uptake

Energy efficiency has been a big loser under the ERF to date.

To turn this around, opportunities to incentivise further action to reduce greenhouse gas emissions include:

a) Re-envisage the purpose of the program: to drive abatement down sooner. This can be achieved by prioritising energy efficiency for certain sectors.

b) Ringfence a significant percentage of ERF abatement funding, or ACCU's, for energy efficiency. This is critical given the low ACCU price which makes energy efficiency unattractive. *Ideally, ringfencing would not be required if the crediting period for various types of activities is made more equitable. For example, agriculture and land-based activities currently have a 25-year crediting period, whereas energy efficiency*

(EE) activities currently have a 7-year crediting period. Land based activities also provide less certainty of abatement than EE activities. The ESIA recommends that crediting periods for EE activities be comparable to those for agriculture and land-based activities.

c) Allow for forward creation for Measurement and Verification (M&V) and other deemed methods.

d) Allow for aggregated projects under all the existing energy efficiency CFI methods with setup, audit and compliance etc on the aggregated project, rather than a single project. This will get transaction costs down and make individual projects more viable.

e) Address a continuing issue with M&V-style projects: funding comes well after the project is completed and it is difficult to consider financing the project. Notably, the NSW ESS Administrator has effectively now mandated that any projects that include a seasonal aspect must have M&V for 12 months and then the following 12 months. It would be better if shorter periods were allowed, but with reduced forward creation.

f) Introduce effective deemed methods (eg 10 years). In contrast, current non-deemed methods under the ERF and the VEU and ESS are gaining little traction due to project complexities and regulatory and compliance barriers. With these issues continuing, project delivery and certificate creation are proving to be slow and financially challenging for upgrade customers, project managers and certificate creators.

g) Streamline existing method development processes and provide stakeholders with greater visibility and input into methods development. ESIA members are experienced, and have invested heavily in these processes under the ERF, VEU and ESS.

h) Consider further best practice ERF administration opportunities.

i) Consider an audit regime based on risk (not set time frames eg three in seven years).

j) Consider including activities for fuel switching, biomass and waste-to-energy.

More Information

Please direct all queries and regarding this submission and follow up discussion opportunities to comns@esia.asn.au

ESIA Submission:
Expert Panel

Examining opportunities for further abatement

Discussion Paper, Oct 2019

For Department of Environment and Energy
Commonwealth of Australia

Due 24 October 2019 (Targeted Consultation)

Submitted to Expert Panel Secretariat carbonexpertpanel@environment.gov.au

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Introduction

The Energy Savings Industry Association (ESIA) is pleased to make this submission by invitation from the Chair, Mr Grant King, of the *Expert Panel examining opportunities for further abatement Discussion Paper, October 2019*. This targeted consultation with industry and other stakeholders has been requested by the Minister for Energy and Emissions Reduction, the Hon Angus Taylor MP.

The consultation is considering the potential to incentivise low cost carbon abatement, with a focus on Australia's industrial, manufacturing, agricultural and transport sectors and increased energy efficiency. The ESIA appreciates that the options in the discussion paper have been developed as a basis for eliciting feedback and should not be read as pre-empting any future decisions the government may take.

Please note that this ESIA response is overdue, and we have been provided with an extension to 30 October, given that due to an email forwarding error, we did not receive the invitation until 29 October. Therefore, this submission has been drafted in considerable haste, with very limited membership consultation, and with a request by the ESIA for the Panel to accept as part of this submission, our ESIA submission to the Climate Change Authority 23 August 2019 in response to its consultation paper: *Updating the Authority's previous advice on meeting the Paris Agreement*. (Attached)

> **Energy savings schemes across Australia have proven to be highly successful mechanisms for delivering lowest cost abatement, and rapidly.**
>
> **The schemes operating in Vic, NSW, SA and ACT have delivered an average annual reduction of total electricity consumption of almost four per cent.**[i]

They could do much more: targets of 10% electricity and gas savings may be reasonable.[ii] The ESIA has demonstrated a scenario where energy savings schemes could achieve one-third of electricity emissions reduction targets by 2030.[iii] Another scenario demonstrates that a National Energy Savings Scheme (NESS) could deliver energy savings from both electricity and gas equivalent in electricity terms 4.5 times the annual output of the Liddell coal-fired power station scheduled to close in 2022. This is based on a NESS target saving 10% of electricity and gas consumption by 2030 which will deliver 39,415GWh energy savings a year by 2030 and based on Liddell's average electricity output of 8,680GWh over the past two years.[iv]

Key benefits of energy savings schemes in relation to achieving net zero emissions at lowest cost:

- Upfront establishment costs and ongoing risk are not an issue for energy savings schemes. Once operational, energy savings schemes have consistently proven to ***save four times more than they cost***.
- Administrative and regulatory lessons have been honed over the past decade with certificate-based schemes (Victoria and NSW) delivering energy savings at lower cost than direct obligation (SA and ACT) due to greater competition.[v]

We look forward to engaging in further follow up discussions to assist in finalising the report. Please direct any follow up contact to comns@esia.asn.au

Discussion Paper: Possible options for abatement - 5 broad concepts

1. Crediting below Safeguard Mechanism baselines
2. Technology-focussed co-funded opportunities
3. Energy efficiency and extension services
4. Knowledge, innovation and capability
5. Streamlining existing ERF processes

Consultation questions

1. **Would the above concepts and ideas be effective in leveraging additional investment in new technologies and delivering additional abatement from the energy efficiency, industrial, transport and agricultural sectors?**

While time constraints have not enabled the ESIA to respond fully to each of the *Possible options for abatement - 5 board concepts* explored on pages 4-5 in the Discussion Paper, we look forward to making a detailed contribution at a later date.

In the meantime, please note in relation to *Point 5. Streamlining existing ERF processes*, some General points for consideration are listed below, some of which may repeat the ERF adjustment recommendations made by the ESIA as part of previous submissions and copied into this submission. (See page 4)

General points for consideration to improve the ERF for energy efficiency projects uptake

Energy efficiency has been a big loser under the ERF to date.

To turn this around, opportunities to incentivise further action to reduce greenhouse gas emissions include:

a) Re-envisage the purpose of the program: to drive abatement down sooner. This can be achieved by prioritising energy efficiency for certain sectors.

b) Ringfence a significant percentage of ERF abatement funding, or ACCU's, for energy efficiency. This is critical given the low ACCU price which makes energy efficiency unattractive.

c) Allow for forward creation for Measurement and Verification (M&V) and other deemed methods.

d) Allow for aggregated projects under all the existing energy efficiency CFI methods with setup, audit and compliance etc on the aggregated project, rather than a single

project. This will get transaction costs down and make individual projects more viable.

e) Address a continuing issue with M&V-style projects: funding comes well after the project is completed and it is difficult to consider financing the project. Notably, the NSW ESS Administrator has effectively now mandated that any projects that include a seasonal aspect must have M&V for 12 months and then the following 12 months. It would be better if shorter periods were allowed, but with reduced forward creation.

f) Introduce effective deemed methods (eg 10 years). In contrast, current non-deemed methods under the ERF and the VEU and ESS are gaining little traction due to project complexities and regulatory and compliance barriers. With these issues continuing, project delivery and certificate creation are proving to be slow and financially challenging for upgrade customers, project managers and certificate creators.

g) Streamline existing method development processes and provide stakeholders with greater visibility and input into methods development. ESIA members are experienced, and have invested heavily in these processes under the ERF, VEU and ESS.

h) Consider further best practice ERF administration opportunities.

i) Consider an audit regime based on risk (not set time frames eg three in seven years).

j) Consider including activities for fuel switching, biomass and waste-to-energy.

Streamlining or improving ERF method development processes

(This information is a direct copy from ESIA submission to CCA 23 August 2019, Appendix 1, and may replicate some of the points listed on the page.*)*

…

As published in our submission to the Review of Climate Change policies discussion paper 5 May 2017: the ESIA is advocating for the Commonwealth Government to *immediately*:

- **adjust the Emissions Reduction Fund (ERF) to stimulate uptake of energy efficiency projects** as a transition measure to a national energy efficiency scheme and to help businesses manage current spiralling energy prices.

Adjustments must include changes to the current Emissions Reduction Fund (ERF) architecture.

Broadly, changes must consider the following:

i. complement the current market-based energy efficiency schemes;
ii. make access easier to facilitate greater uptake of energy efficiency projects;
iii. ensure that these projects are treated on a level playing field with other project types as there has been little support to date;
iv. significantly tighten baselines as they are currently fairly weak; and
v. improve and expand methodologies to make them more relevant for energy efficiency upgrades.

Specifically, changes must consider the following:

a) adjust the crediting process for Energy Efficiency Australian Carbon Credit Units (ACCUs)

i. harmonise the Commercial and Public Lighting (CPL) method default operating hours, deeming of 10 years upfront, lighting approval requirements, multipliers and general compliance evidence with the New South Wales Energy Savings Scheme (ESS), if not the entire commercial lighting method; and
ii. introduce the concept of 'forward creation' to the Industrial Electricity and Fuel Efficiency (IEFE) method, similar to how it is used in the ESS Project Impact Assessment and Verification (PIAM&V) method and proposed Victorian Energy Efficiency Target (VEET) Project-based Assessment (PBA) to improve project viability.

b) Prioritise the purchase of Energy Efficiency ACCUs

i. differentiate ACCUs created from an energy efficiency method to then allow 'Energy Efficiency ACCUs' to be identified by relevant stakeholders;
ii. allocate a fixed minimum portion of ERF auction funds to projects using energy efficiency methods;
iii. extend the ERF Government contracting period from seven to ten years for energy efficiency ACCUs;
iv. introduce a mechanism whereby the Government will pay in advance for the full volume of an ERF ACCU contract for ACCUs created under an energy efficiency method;
v. create an additional demand for energy efficiency ACCUs in the secondary ACCU market by including a requirement in the Safeguard Mechanism that large electricity users much satisfy and shortfalls in emissions abatement targets with ACCUs sourced from energy efficiency methods.

2. Are there other incentive-based or voluntary mechanisms that would be more effective in accessing low cost abatement?

We request that the concise ESIA documents referenced in this submission be considered by the Expert Panel. They provide a range of discussion points and recommendations for incentive-based mechanisms and supporting polices proposed most recently by the ESIA.

Finally, an overarching consideration to bear in mind in relation to electricity markets and setting in place opportunities for achieving emissions reductions, are two recommendations recently made by the ESIA to the Energy Security Board regarding proposed changes to the National Energy Objective:

1. Incorporate emissions reduction and maximise demand side contribution.
2. Give equal consideration to demand side options as to supply side options.[vi]

More Information

Please direct all queries regarding this submission and follow up opportunities to comns@esia.asn.au

[i] Setting ambitious targets for energy savings schemes Australia-wide 2019-2030, ESIA White Paper, 3 July 2019, 2.
[ii] ESIA Background Information Paper: Proposed National Energy Savings Scheme (NESS) target: saving 10% of electricity and gas consumption by 2030, 23 March 2019.
[iii] Setting ambitious targets for energy savings schemes Australia-wide 2019-2030, ESIA White Paper, 3 July 2019, 7.
[iv] ESIA Background Information Paper Proposed National Energy Savings Scheme (NESS) target: saving 10% of electricity and gas consumption by 2030, 23 March 2019.
[v] ESIA submission to the Climate Change Authority in response to its consultation paper: *Updating the Authority's previous advice on meeting the Paris Agreement*, 23 August 2019, (Attached)
[vi] ESIA Submission to the Energy Security Board: Response to Post 2025 Market Design Issues Paper, 4 Sept 2019, p2.

ESIA Submission:
Consultation Paper July 2019

Updating the Authority's previous advice on meeting the Paris Agreement

Climate Change Authority
Commonwealth of Australia

Due 23 August 2019

Submitted to submissions@climatechangeauthority.gov.au

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Introduction

The Energy Savings Industry Association (ESIA) is pleased to make this submission as part of the consultation process of the Climate Change Authority (CCA), Commonwealth of Australia, to update the Authority's previous advice on meeting the Paris Agreement.

The ESIA is the peak national body that represents businesses accredited under energy savings schemes across Australia including the Victorian Energy Upgrades program, (VEU), New South Wales Energy Savings Schemes (ESS), South Australian Retailer Energy Efficiency Scheme (REES) and Australian Capital Territory Energy Efficiency Improvement Scheme (EEIS). ESIA members also participate under the federal Emissions Reduction Fund (ERF).

A number of our member companies' work across all of these schemes as certificate creators and product and service providers, with several having been constantly engaged in design and ongoing consultation since all of those schemes' inception a decade ago. We are at the forefront of the demand side of the energy sector, with many members also leading in innovative development of new products and services.

The ESIA is well placed to provide first-hand insights into the opportunities and complexities for strengthening energy savings schemes and complementary initiatives, such as a peak demand reduction scheme.

The ESIA would like to participate in consultations and meetings as part of this review, please email comns@esia.asn.au.

Rationale for energy savings schemes expansion

Energy savings schemes tick all the boxes considered in the CCA Consultation Paper (Box 2, p4) to be of merit in relation to emission reduction policies. (See Table 1)

Table 1 - CCA Evaluating climate change policies: how energy savings schemes stack up (ESIA)

Principles	**Schemes**
Economic efficiency	✓
Environmental effectiveness	✓
Equity	✓
In the public interest	✓
Take account of the impact on households, business, workers and communities	✓
Support the development of an effective global response to climate change	✓
Be consistent with Australia's foreign policy and trade objectives	✓
Desirable characteristics	
Credibility - to provide an incentive for businesses to invest and innovate and to ensure emissions reductions are real	✓
Durability and simplicity - to reduce the costs to government associated with implementing policies and the costs to businesses of adjusting to new policies	✓
Scalability - to enable Australia to adjust its emissions reduction commitment over time, in response to changes in technology, the economy and the action of international competitors.	✓
Coherency with other policies - Australia needs a policy toolkit with broad coverage to reduce the overall costs of emissions reductions and maximise opportunities created.	✓
Flexibility - include a range of compliance options to reduce the cost of emissions reductions, such as allowing access to international units subject to quantitative and qualitative limits.	✓

4% demand reduction annually with energy savings schemes

Existing energy savings schemes in Vic, NSW, SA and ACT have delivered an average annual reduction of total electricity consumption of almost four per cent.

Achievements up to end 2017, more than:

> 2.3 million households and businesses have participated
> 5 million energy-saving upgrades so far
> 5 million MWh of electricity saved annually
> 5 million tonnes of greenhouse gas emissions avoided
> 4,000 jobs supported
> $1 billion of customer bill savings annually. [i]

Greater annual energy savings could be achieved with increased targets. The ESIA has demonstrated the kind of savings achievable with targets saving 10% of electricity and gas consumption by 2030 for a National Energy Savings Scheme (NESS), and for the Victorian and NSW schemes.[ii] [iii] [iv]

ESIA Recommendations

To help Australia meet its Paris Agreement, the ESIA continues to advocate for:

1. **the CCA's previous position to introduce a NESS as soon as possible**. A NESS could be designed so that is harmonises with existing schemes in Vic, NSW, SA and ACT, and with others committed to introducing one, such as Queensland which has committed to do so prior to that state's next election in 2020. Other jurisdictions: Western Australia, the Northern Territory and Tasmania could simply access the NESS.

2. **support and encourage all jurisdictions with a scheme to strengthen these and extend their existing targets to 2030**, as ACT has done. Vic, NSW and SA have this opportunity as part of their 2019-2020 target setting reviews. Strengthening can include harmonisation and larger targets with more energy efficiency upgrade activities eligible for incentives, and access to more households and businesses across Australia. Larger targets *sooner* will assist directly in a rachet-up approach now increasingly needed to accelerate uptake of lowest-cost abatement solutions to meet pressing emissions reduction requirements. Given that the energy sector is so well placed to reduce emissions rapidly, not taking this policy approach may be considered negligent.

3. **energy savings schemes to be complemented by a highly targeted demand reduction component or separate scheme**, or schemes, that could be national, or state based. For example, a highly targeted demand reduction air-conditioning upgrade program rolled out over several months in Victoria could equate to avoiding the Australian energy Market Operator (AEMO) forecast blackout threats to that state this coming summer 2019-2020. The installed air conditioners could be turned off during critical peak times using Demand Response Enabling Device (DRED) capacity. Such as scheme could have avoided the 2018-2019 forced 200MW of load shedding.

4. **Emissions Reduction Fund adjustments** to stimulate the uptake of energy efficiency projects as a transition measure to a NESS and to help businesses manage spiralling energy prices. (See Appendix 1)

5. **Establishment of an Australian Energy Market Demand Side Operator** (AEMDSO) to counterbalance the AEMO which continues to be skewed towards supply side solutions with virtually no consideration of supply-side solutions. This is exemplified in recent Electricity Statement of Opportunities (ESOO) and Gas Statement Of Opportunities (GSOO) reports. We first made this recommendation on 27 March 2017[v] and in a submission to the Government[vi].

Challenges - Politics and Ideology out of step with community

The politicised and partisan approach to energy and greenhouse gas emissions reduction policy at the federal level continues to be the primary spanner in the works to prevent mobilising the CCA's previous advice in 2017 to launch a National Energy Savings Scheme (NESS). [vii] This position flies in the face of strong community support for financial incentive for energy efficiency upgrades. [viii]

Energy savings schemes continue to prove themselves in the face of ongoing market barriers to energy upgrades including: lack of upfront capital, and lack of knowledge and time of energy customers to recognise the benefits, and a lack of data available publicly which would make the opportunities more transparent and easier to pinpoint and action.

Achieving net zero emissions at lowest cost

Upfront establishment costs and ongoing risk are not an issue for energy savings schemes. Once operational, energy savings schemes have consistently proven to save four times more than they cost.

Administrative and regulatory lessons have been honed over the past decade with certificate-based schemes delivering energy savings at lower cost due to greater competition. (See Table 2)

Table 2 - Energy savings schemes: lower cost with certificate models Vic & NSW (ESIA 23/5/19)

Jurisdiction with scheme	Residential pass-through 2019-2020 [1]	MWh/capita energy savings 2020 [2]	$/MWh
Vic	$12	0.94	$12.70
NSW	$7	0.59	$11.90
SA	$13	0.37	$35.10
ACT	$29	0.64	$44.60

([1] AEMC Residential Electricity Supply Trends Report 2018 [2] EECCA industry Report Nov 2017)

Appendix 1 - ERF recommendations to stimulate energy efficiency projects

As published in our submission to the Review of Climate Change policies discussion paper 5 May 2017: the ESIA is advocating for the Commonwealth Government to *immediately*:

- **adjust the Emissions Reduction Fund (ERF) to stimulate uptake of energy efficiency projects** as a transition measure to a national energy efficiency scheme and to help businesses manage current spiralling energy prices.

Adjustments must include changes to the current Emissions Reduction Fund (ERF) architecture.

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ii. introduce the concept of 'forward creation' to the Industrial Electricity and Fuel Efficiency (IEFE) method, similar to how it is used in the ESS Project Impact Assessment and Verification (PIAM&V) method and proposed Victorian Energy Efficiency Target (VEET) Project-based Assessment (PBA) to improve project viability.

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i. differentiate ACCUs created from an energy efficiency method to then allow 'Energy Efficiency ACCUs to be identified by relevant stakeholders;
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iii. extend the ERF Government contracting period from seven to ten years for energy efficiency ACCUs;
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v. create an additional demand for energy efficiency ACCUs in the secondary ACCU market by including a requirement in the Safeguard Mechanism that large electricity users much satisfy and shortfalls in emissions abatement targets with ACCUs sourced from energy efficiency methods.

For more information regarding this ESIA submission, please email comns@esia.asn.au

[i] Figures based on: annual reports of schemes, regulatory impact statements and registries; EECCA Energy Savings Schemes Report, 11/17: Table 4 – targets 2009-2009 metrics conversion to MWh, p 14 using figures from 2009-2017, and electricity consumption of each state in 2017. Assumptions include: allowing for deeming provisions, 1MWh of electricity avoided delivering 1 tonne of greenhouse gas abatement and bill savings based on an average of $0.20c/kWh.

[ii] ESIA Background Information: Proposed NESS target: saving 10% electricity and gas consumption by 2030, 25 March 2019.

[iii] ESIA Submission: VEU target setting 2021-2025, 14 December 2018.

[iv] ESIA Background Information: Strengthening the NSW ESS: saving more energy and money to 2030 – 2019 review scope opportunity, 14 June 2019.

[v] EECCA Media Release: Energy crisis - Australia needs AEMDSO not just AEMO, 27 March 2017.

[vi] EECCA Submission: Review of Climate Change Policies Discussion Paper 5 May 2017, Appendix D.

[vii] Climate Change Authority Report: Towards Next Generation delivering affordable secure and lower emission power, 5.5.1 A National Energy Savings Scheme, 2 June 2017, p46.

[viii] ESIA Media Release: Energy savings schemes deliver what voters want, 16 April 2018.

ESIA Submission
Lighting Activities Issues Paper
December 2019

Victorian Energy Upgrades (VEU)

Resubmitted 27 February 2020

Submitted via the portal https://engage.vic.gov.au/victorian-energy-upgrades/lighting

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Introduction

The Energy Savings Industry Association (ESIA) is pleased to make this submission in response to the Victorian Energy upgrades (VEU) Lighting Activities Issues Paper released on 5 December 2019 by the Victorian Department of Environment, Land, Water and Planning (DELWP).

About ESIA

The Energy Savings Industry Association (ESIA) is the peak national, independent association representing and self-regulating businesses that are accredited to create and trade in energy efficiency certificates in market-based energy efficiency schemes in Australia. These activities underpin the energy savings schemes which facilitate the installation of energy efficient products and services to households and businesses. Members represent the majority of the energy efficiency certificate creation market in Australia. Schemes are established in Vic, NSW, SA and ACT. Members also include product and service suppliers to accredited providers within the schemes. As well, the ESIA represents member interests in national initiatives that include energy efficiency such as the Federal Government's Climate Solutions Fund.

Further engagement with the Victorian Government

We welcome the opportunity to discuss this submission prior to a Response to Consultation scheduled for publication in February 2020. For any queries, please contact comns@esia.asn.au

The VEU Lighting Issues Paper seeks feedback on:

1. The future direction of lighting activities in VEU program
2. The technical changes proposed within this document (which will be drafted in the Specifications)
3. The remaining opportunities for lighting upgrades under the VEU program
4. What impact the proposed changes may have on meeting the 2020 target
5. How the proposed changes to lighting activities will impact program participants. (p5)

The following questions are posed for consideration:

1. Which of the proposed lighting changes are most relevant to you?
2. Does the Lighting Issues Paper accurately reflect your experience and address issues you have experienced?
3. What are your views on the relative merits of options 1 and 2 for phase out of Part 21 and Part 34 activities?
4. General comments on the proposed changes and discussion points contained in the Issues Paper. (Source: https://engage.vic.gov.au/victorian-energy-upgrades/lighting)

General response

ESIA opposes all proposed options in the VEU Lighting Activities Issues Paper

The ESIA supports the strategic policy goals that the Victorian Government is seeking to achieve with proposed method changes to lighting under the Victorian Energy Upgrades (VEU) program, however we oppose all the proposed options detailed in the Issues Paper to achieve these goals.

None of the proposed options to change Part 21 or 34 are consistent with the key principles of best practice energy efficiency scheme design which we discuss in this response. We particularly oppose proposed removal of some lighting activities under Part 34 on these grounds.

Moreover, the proposed approaches risk inadvertently driving up sovereign risk and Victorian Energy Efficiency certificate (VEEC) prices and delaying transition to non-lighting activities.

Instead, we recommend alternative approaches to achieving the Government's policy goals and VEU program objectives, which the ESIA strongly supports, to:

1. reduce greenhouse gas emissions;
2. encourage efficient use of electricity and gas; and
3. encourage investment, employment and technology development in industries that supply goods and services which reduce the use of electric and gas by consumers.

Our recommendations will support a manageable transition with upgrades occurring that deliver 'additional' as opposed to 'business-as-usual' (BAU) activity, with lower cost abatement at scale that reduces costs to customers. A case in point: the ESIA accepts that it is not the role of the VEU to deliver 100% saturation of the lighting upgrade market. However, we strongly believe that the Victorian Government should not pass up the opportunity to enable further significant deemed lighting upgrades up to 2025, beyond the proposed February 2021 end date (Option 2) for certain lighting activities.

1000+ jobs lost without reasonable industry transition

The Victorian Government's proposed rapid phase out of deemed lighting presents a genuine shock to the market providing inadequate time for major adjustments including transitioning jobs and skills to the proposed new activities. Around 1,000 jobs would be lost under such a rapid and unwarranted phaseout in less than 12 months from announcement of a final decision, based on estimates by ESIA members.

These losses would come at precisely the time that businesses are being called upon to invest in innovation and retraining of energy efficiency activity experts, sales forces and support staff who require different consideration than, say, electricians who may more easily find transitional contract work. Deep expertise in the VEU will be lost, as occurred in 2014 when the program's future was uncertain prior to the Victorian election which put scheme extension post 2015 at risk under a potential Coalition government which at that time did not support the program. Businesses laid off significant numbers of staff and contractors who were not re-employed following that hiatus.

Such job losses will devastate Victoria's energy efficiency industry when the sector is building capacity and a primary lever empowering consumers to deliver climate change mitigation activity in their own homes and businesses. With the strong smell of bushfire smoke still permeating many inadequately sealed homes across the State (with more to come), proposed options seem acutely unpalatable in terms of sound public policy and political sensitivity.

New activities welcomed

The ESIA recognises and welcomes the importance of introducing and stimulating new activities and methods to achieve the targets proposed in the Regulatory Impact Statement (RIS) VEET (Prescribed Customers and Targets) Regulations 2020. Targets increases from 2021-2025 are greatly welcomed and the ESIA looks forward to consulting further with the Government on those initiatives. We would prefer that the targets in Option 5, rather than the RIS-preferred Option 4, be adopted. This further target increase would be possible should our recommendations be adopted to continue lighting to 2025 with some adjustments and additions, introduce a priority household target, and streamline Project-Based Activities (PBA). *(Refer to ESIA Submission: VEU RIS VEET Amendment Regulations 2020, Appendix 1 - Ideas on streamlining PBA: reducing risk and costs, 31 Jan 2020)*

Additionality

All the proposed options take a binary and inconsistent approach to savings additionality. Whereas in fact, additionality is on a spectrum that measures the likelihood a new activity would not have occurred without the VEU, against the changing rate of Business As Usual (BAU) upgrades over time.

We agree that vast numbers of residential lighting upgrades have occurred under Part 21 and industrial HID upgrades (such as high bays) have occurred under Part 34. Indeed, for all building types, efficient LEDs are becoming the norm for a growing share of new buildings and major refurbishments. However, there is no evidence that residential, commercial or industrial customers are conducting BAU energy efficiency lighting retrofits outside either VEU supported projects or major refurbishments.

Therefore, lighting upgrades remain additional. Indeed, the Government's proposal to transition lighting upgrades from Part 34 to the PBA method is an acknowledgement of this additionality.

However, the likelihood of each new upgrade not being driven by a building refurbishment is gradually decreasing each year. Therefore, we agree that methods should be adjusted to account for these future improvements in baseline energy efficiency. The Government's proposed adjustments, however, are neither grounded in theory nor evidence.

Rather than treating additionality as a binary, the default savings factors should be adjusted to reflect this changing likelihood of the period for which VEU upgrades will bring future savings forward. These adjustments should reflect different rates of BAU refurbishments for different building types and classes. For example, if the average refurbishment period is 15 years for Premium and A grade commercial buildings, and 20 years for industrial and B and C grade commercial buildings, then a building chosen at random could likely undertake a refurbishment (and probably switch to LED lights) in 7.5 and 10 years' time respectively.

Additionality should be based on deemed savings calculations that transparently take into account these periods and the likelihood of LED upgrades for different building types and classes. For a detailed quantitative and qualitative analysis of these energy efficiency scheme lighting factors and trends, refer to the study conducted for the NSW Government in 2017[1].

Unnecessary risk

The lack of sound reasoning for these proposed changes to Parts 21 and 34 suggests that the underlying goal is not actually additionality, but to drive up certificate prices and shift activity to the PBA method.

The ESIA strongly supports Government efforts to increase implementation of projects under the PBA method *(refer to ESIA Submission: RIS VEET Amendment Regulations 2020).* However, we do not support proposed changes to lighting to promote a transition to PBA and non-lighting activities.

On the contrary, arbitrary manipulation of additionality and deeming assumptions and dramatic short-term changes in the market Rule undermine method integrity and investor confidence in the VEU. This increased sovereign risk and transaction costs will likely drive up costs for consumers without proportional increases in benefits.

Market responsiveness: innovation, investment and re-training take years

We encourage the Government to understand that the success of the VEU depends upon a combination of the policy integrity of methods and commercial viability of the market.

The level of savings attributed to an activity and the traded price of certificates both influence the incentives the program provides the market to pursue activities.

However, there are unavoidable lags between when incentives are made available and when the market can deliver them at scale. It took the early innovators two to three years to develop scaled commercial lighting retrofit offerings. It still took followers one to two years to emulate and build on these businesses.

Non-lighting commercial activities will take similar periods to scale up. This is because they typically have significantly higher upfront costs, so the incentive provided by the VEU will be less attractive to customers and require new sales channels and value propositions. Many ESIA members are highly agile and are innovating to develop compelling market offerings for non-lighting VEU upgrades. Notably, the reduction in commercial lighting upgrades under Part 34 that resulted from significant residential lighting giveaways under Part 21 has reduced commercial energy efficiency sales forces that many members must now build up for non-lighting upgrades.

[1] NSW Lighting Market Impact Evaluation: Impact of NSW Government energy efficiency programs – Final Report, Common Capital and Beletich Associates, 1 Nov 2017. Published as ESS 2017-18 Rule Change Consultation Paper Appendix B: https://energy.nsw.gov.au/sites/default/files/2018-09/ESS-2017-18-Rule-change-consultation-paper-Appendix-B_0.pdf

Part 27 remains untapped although significant abatement opportunities exist and Part 35 is also yet to scale up.

Commercial realities

Rather than accelerate the transition to non-lighting activities, the proposed VEU changes risk further reducing the cashflow and sales forces of our members available to transition. This in turn risks a period of high certificate prices and certificate undersupply at a time when businesses must fund innovation in non-lighting offerings out of speculative investment. The increased sovereign risk of what could be perceived as regular and somewhat arbitrary change to VEU methodologies in turn could deter necessary investment in new offerings to deliver VEU targets.

Key principles to drive VEU method development and maintenance

To address these risks and issues, the ESIA has identified seven key principles for the development and maintenance of energy savings scheme methods that should drive proposed and future changes:

1. **Schemes should provide methods for as broad a range of additional energy savings activities as possible** to allow the market to find implementation solutions.
2. **Additionality should reflect the likelihood of an activity occurring in the absence of the scheme** – considering regulatory requirements, the baseline rates of equipment and building stock turnover and the proportion of the market which undertakes early energy savings upgrades in the absence of schemes.
3. **Methods should seek to allow the standardised estimation of the energy savings that could reasonably be expected** from an instance of that activity under normal conditions.
4. **Methods should provide for the estimation of savings and demonstration of implementation in the simplest, lowest cost way**, while providing assurance product and installation quality and safety and mitigation of gaming, proportional risk and impact.
5. **Savings deeming periods should be transparent and based on** a factor of both the timeframes that equipment will last and adjusted for the likelihood it would have been replaced in that period.
6. **Where the savings from given activity can be measured by multiple methods,** measurement approaches should result in outcomes that are on average consistent.
7. **Changes should be made to methods with sufficient notice so as to avoid unreasonable business disruption** (for example stranded investments in products and staff), which in turn would increase compliance costs to cover sovereign risk and drive exit from the market of suppliers the Government requires to deliver new activities. A minimum of 12 months' notice should be required for changes that have a material impact on the commercial viability of activities currently conducted under the scheme, unless safety issues are at stake.

How proposed VEU changes stack up to these principles

The proposed changes to Parts 21 or 34 are not consistent with these principles.

Specific responses

Below, we make recommendations regarding Commercial Lighting (Part 34), Residential Lighting (Part 21), Public Lighting (Part 27) and Non Building Based Lighting (Part 35).

A. Changes to Part 34 (Commercial Lighting)

The Government considers that the reason various lighting technologies proposed to be removed from being eligible activities under Part34 deemed method, by no later than February 2021, is on the basis that these are now BAU.

We understand that these technologies will still be eligible to create Victorian Energy Efficiency Certificates (VEECs) under the Project Based Methodology (PBA).

Deemed lighting methods remain valid inclusions in the VEU as they are more efficient than PBA methods and the Victorian Government supports policy that delivers lowest cost energy savings.

BAU is not the case: The ESIA refutes the claim that the above-mentioned Part 34 lighting upgrades are BAU, this position is based on targeted marketing by members of top ASX 100 companies through to SME corner stores.

If BAU was the case, then:

- **significantly more upgrade work would be occurring now** - particularly in offices, retail (shopping centres) and aged care, health care and education institutions. Key barriers remain including multiple layers of management (owner, third party property manager, tenant) and the slow but worthwhile process of getting decision makers on board. To date, other markets have been easier to penetrate such as industrial, manufacturing and commercial businesses.
- **market penetration would be higher** in jurisdictions across Australia with no energy savings schemes instead of continuing to be flat. (A small exception is for some businesses operating in places with schemes, that they have experienced the benefits and may extend their roll out. Other businesses have consciously only done upgrades in jurisdictions with schemes.)
- **LEDS would be considered for full retrofit at scale across Victoria**, rather than when a major refurbishment takes place (every seven years at a minimum for customers with more sophisticated energy management plans and access to capital etc).

There is no evidence indicating that lighting installers and consumers replace less efficient with more efficient units when a single unit fails. The decision is usually made based on matching the fitting (replacing like with like), ease of replacement, unit cost, visual appeal, brightness and what is available at the point-of-sale. This is generally likely to be the case until bans on inefficient product are mandated and existing stock in Australia has been used up, which could take many years.

Building classification grey areas: There are still considerable untapped opportunities given that there are many office and shop sites, for example, that are eligible for upgrades that can be

reached now that there is more clarity around building classification as provided by the Victorian Government.

Standards too slow to deliver: Until the sale of HIDs and T5s are prohibited under Greenhouse and Energy Minimum Standard (GEMS) or some other government regulation (ie the same rationale as for the removal of Part 21), the replacement of these fittings should continue to be possible under Part 34.

Risk of stalling the market: There is a genuine risk that cost-effective lighting activities will cease without the deemed approach under Part 34. Financial and behavioural barriers to energy efficiency will mean that installations that would otherwise have taken place under Part 34 will no longer occur.

Whilst the VEU program has supported significant levels of commercial lighting upgrades, there are still considerable opportunities that remain that are not likely to be achieved under the PBA methodology. There is reasonable consensus that the high volume of upgrades under Part 21 has slowed Part 34 upgrades during 2019, which is not an indicator of reasonable saturation of 34.

Lighting upgrades under the PBA method may be undertaken by some of the more sophisticated commercial and industrial customers. Importantly however, it will be small to medium sized businesses that will miss out as these upgrades tend to be smaller and with higher transaction costs and transaction friction (eg uncertainty over measurement and delivery in certificate creation) which mean that this cost effective abatement opportunity will be lost.

Mercury to landfill to increase: The Minamata Convention is proposed to reduce replacement of mercury vapor lamps due to signatory countries agreeing to cease manufacture (Australia has not agreed to this). Uncertainty remains as to when Australia will mandate a phase out, and previous experience indicates a leadership position ahead of international actions is unlikely to occur. Even if this mercury-containing product market reduces due to the Minamata Convention supporting for a full ban in years to come, this will not impact the many units in-situ in Victoria. When those units fail, they will likely make their way to landfill without regulated mandatory disposal. This will create increased risks and costs for the Environment Protection Authority and, ultimately, Victorians.

National Construction Code 2019 changes are proposed to have a major impact on the additionality of 34 J6 activities: however, the changes are relevant for new-builds and not the retrofit market which is the sole focus of the VEU.

B. Changes to Part 21 (Residential Lighting)

The Victorian Government is proposing that all lighting upgrades under Part 21 be removed from being eligible activities by no later than February 2021.

Targeted market penetration: In the residential lighting market, for example under Part 21D, without the successful marketing models achievable under the VEU which find the customers and clearly communicate the savings opportunities, households are unlikely to undertake such retrofits that deliver 'additionality' beyond February 2021.

Standards too slow to deliver: Future national and international regulatory changes to lighting cannot be relied upon to support a shift to more energy efficient upgrades. The LED Minimum Energy Performance Standard (MEPS) and Halogen Phase Out is not confirmed: the final date of implementation by the Australian Federal Government for such MEPS, currently considered likely to be in September 2021, is dependent upon the European Union lighting regulations. It would be reasonable not to rely on making a major decision of Part 21 phase out until such time as the Federal Government commits to any regulatory change.

C. Changes to Part 27 (Public Lighting)

The Victorian Government is proposing that although Part 27 (ie road lighting other than traffic lights, or a public or outdoor space that is not a sports field) will remain, mercury vapour lamps will be removed from baseline calculations and no longer generate VEECs.

There has been no uptake in this activity. A major barrier is working with councils which is time-consuming and easier upgrades have occurred instead to date. (It has had greater uptake to date under NSW ESS). Removing it would negate significant abatement opportunities that are additional and not BAU.

Mass changeout of mercury vapour lamps will not occur without support under the VEU and the opportunity to recycle mercury under the VEU will be lost. *(Refer to **Mercury to landfill to increase** in A. above)*

D. Changes to Part 35 (Non-building based Lighting)

The Victorian Government is proposing that although Part 35 will remain (eg lighting in private spaces, car parks and sporting fields), mercury vapour lamps will be removed from baseline calculations and no longer generate VEECs.

There has been little uptake in this activity, with some traction in recent months. Removing it would negate significant abatement opportunities that are additional and not BAU.

Mass changeout of mercury vapour lamps will not occur without support under the VEU and the opportunity to recycle mercury under the VEU will be lost. *(Refer to **Mercury to landfill to increase** in A. above)*

Recommendations

1. General

a) **Phaseout of proposed lighting activities by 2025 at *earliest***: ESIA does not support Option 1 or 2 for proposed phaseouts ranging from August 2020 to February 2021.

b) **Engage more deeply with industry on specific BAU in-field experience** as a priority.

2. Changes to Part 34 (Commercial Lighting)

a) **Part 34 should continue to include:**

i. CFL and T5 fluorescent lamps as proposed for T8 and T12 fluorescent lamps.

ii. HID lamps with a staggered reduction in abatement levels over time.

These lighting technologies continue to be a major opportunity for delivering significant greenhouse gas abatement and energy savings with millions of units still upgradable.

It is unreasonable to terminate this deemed opportunity given that full retrofits are not BAU, and PBA will not deliver as many upgrades. Major upgrade opportunities include:

i. **HIDS** in warehouses, factories and SMEs

ii. **T5, T8 and T12 linear and circular fluorescent lamps and Compact Fluorescent Lamps (CFLs)** in offices, aged and health care and educational institutions. (Notably T5s, T8s and T12s have the same efficiency at 60 Lumens/Watt so should all remain. T5 still offers a material abatement and, although less than T8 and T12, will enable significant upgrades that won't happen otherwise).

b) **Provide 12 months' notice to reduce deeming periods in the future** to a period based on an analysis of commercial lighting stock turnover rates based on building type and class refurbishment rates. (For example, in 2017 a report for the NSW Government suggested periods current at that time in the order of seven years for Premium and A grade commercial and 10 years for industrial and B and C grade commercial.[2])

c) **Provide an advanced commitment and build in automatic further reductions annually thereafter**, based on forecast future stock turnover rates.

d) **Transition to the PBA method**

If the Government wants to encourage increased implementation of projects under the PBA method – as we believe it should – then this should be done by reducing the complexity of the PBA method.

If the Government is concerned that the high penetration rates of Part 34 HID upgrades increase the likelihood of fraud, then – once recommended changes are made – that concern

[2] NSW Lighting Market Impact Evaluation: Impact of NSW Government energy efficiency programs – Final Report, Common Capital and Beletich Associates, 1 Nov 2017. Published as ESS 2017-18 Rule Change Consultation Paper Appendix B: https://energy.nsw.gov.au/sites/default/files/2018-09/ESS-2017-18-Rule-change-consultation-paper-Appendix-B_0.pdf

should be managed under the VEU audit and compliance framework, not by arbitrary manipulation of savings calculations and deeming periods.

e) **Introduce a staggered reduction in abatement factor for Part 34 HIDs**, eg:
   i. 2021 - 100% of 2020 level
   ii. 2022 - 80% of 2020 level
   iii. 2023 - 60% of 2020 level
   iv. 2024 - 40% of 2020 level
   v. 2025 - 20% of 2020 level

3. Changes to Part 21 (Residential Lighting)

a) **Part 21 should phaseout to 2025 with a significant downward adjustment to the abatement factor consistent with the deemed periods used for commercial lighting. This** would provide an appropriate decelerator and deliver upgrades at a reasonable price and volume to the market.

b) **Provide 12 months' notice to reduce the current ineffective deeming period of 30 years** to a period based on an analysis of residential lighting stock turnover rates. (For example, in 2017 a report for the NSW Government suggested a period current at that time of four years.[3])

c) **Provide an advanced commitment and build in automatic further reductions annually thereafter**, based on forecast future stock turnover rates.

   This approach would correct the current market distortions in Part 21, while providing a level playing field and smooth transition to other more additional activities. It would avoid the severe price shocks and stranded investments which are likely to result from the major proposed changes with little notice. The transparent and evidence-based approach to setting of deeming methods will also help restore confidence in method integrity and avoid future distortions from inconsistent savings methodologies.

   If the Government is concerned that the high penetration rates of Part 21 upgrades increase the likelihood of fraud, then - once recommended changes are made – that concern should be managed under the VEU audit and compliance framework, not by arbitrary manipulation of savings calculations and deeming periods.

4. Changes to Part 27 (Public Lighting)

a) **Mercury vapour lamps should remain, and support be provided to overcome key barriers** of working with public entities such as councils and their complex decision making and asset management processes, asset ownership and relationships with electricity networks.

5. Changes to Part 35 (Non-building based Lighting)

a) **Mercury vapour lamps should remain, and support be provided to overcome key barriers** working with customers and their complex decision making and asset management processes, asset ownership and relationships with electricity networks.

[3] Ibid.

Additional benefits of recommendations

a) **A higher volume of cost-effective lighting upgrades will occur to 2025 which** would not otherwise taken place and will mean that the cost to customers of meeting the proposed targets will be lower.

b) **Lighting market innovation and transformation** will continue more strongly to 2025.

c) **Smoother transition for industry as it finds new markets to reach the higher targets** which will be require more upgrades to achieve.

d) **Significant incentives for remaining 'additional' lighting upgrades will support** continued jobs and investment and the Victorian economy.

e) **The most energy efficient, high quality products will remain on the Lighting Register** (with appropriate removal for less efficient product with the introduction of minimum efficacy requirements) so it will remain the unofficial national register for such products to 2025.

f) **Broader and deeper lighting retrofits are likely to continue** eg lighting scopes with more lighting product options support a fuller retrofit including higher and lower abatement factor products (eg tubes throughout an office, single bulbs in toilets, designer lights in foyers, car parks and emergency lighting). They are also a strong lead generator for deeper retrofits with smart lighting and controls, weather sealing and heating, ventilation and air-conditioning.

g) **Mercury-containing products will continue to be removed and recycled at scale**, which won't happen otherwise (eg metal halides). This VEU value-add is significant though not calculated as part of the program's net economic benefit.

For more information regarding this submission, please email comns@esia.asn.au

Addendum to
ESIA Submission
Lighting Activities Issues Paper
December 2019

Victorian Energy Upgrades (VEU)

27 February 2020

Submitted via the portal https://engage.vic.gov.au/victorian-energy-upgrades/lighting

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This document includes:

1. **Executive Summary** - summarises key aspects of the ESIA submission of 31 January and additional information explored in the body of the Addendum.
2. **Addendum**

Executive Summary

The ESIA position deviates significantly from the Government's proposal in key areas highlighted in red in Table 1.

Table 1 – Key areas where ESIA position deviates from the Government's Proposal		
Activity	**Government Proposal**	**ESIA Position**
Part 34 (Commercial Lighting)		
HID replacement	Phase out by Feb 2021	*Phase out to Dec 2025*
T5 and CFL replacement	Phase out by Feb 2021	*Continue*
T8 and T12 replacement	Continue	Continue
Part 35 (Non-building based)		
Mercury vapour lamp replacement	Remove from Aug 2020	*Continue*
Other lamp replacement	Continue	Continue
Part 27 (Public Lighting)		
Mercury vapour lamp replacement	Remove from Aug 2020	*Continue*
Other lamp replacement	Continue	Continue
Part 21		
All activities	Phase out by Feb 2021	• *Phase out to Dec 2025* • *Abatement factors to reflect those applying to HID replacement (7 years)*
Project Based Activities		
		All lighting technologies and space types eligible under PBA

Additional information provided in this Addendum focuses on the case for Part 34 (Commercial Lighting) continuation of certain activity types and is based on new data provided by some ESIA members that are deeply engaged in the sector. These ESIA member businesses will lose 50% to 70% of their pipeline of opportunity under the VEU with proposed changes when considering HIDs, T5s and CFLs. This equates to the same lost opportunity for emissions abatement. These member businesses stated that pipelines of opportunity for these upgrade types are not drying up, rather they have generally been consistently buoyant even after several years as 'live' jobs. One member alone has 10 times the volume of HID fixtures in their pipeline than that estimated in the Government's lighting modelling report as remaining for industrial buildings.

These types of upgrades are not Business As Usual (BAU) and will continue to deliver additional and significant energy savings and greenhouse gas emissions reductions that will not otherwise be realised without support of the VEU to 2025. These upgrades will support cash flow and investment certainty and confidence as businesses transition to new models to deliver on emerging upgrade opportunities under the VEU. Alternatively, the adverse impacts of an inadequate transition period where an overlap of activity upgrades are less likely to occur, will result in significant job losses (estimated 1,000 FTE positions), as well as loss of skills particularly for non-'free' upgrades. This will come at a time when businesses should ideally be investing and upskilling to support new activities development under the VEU in consultation with government. Further the adverse impact of the corona virus outbreak is impacting LED lighting product supply chains as a majority are manufactured in China. Any slowdown of related upgrades therefore should not be mistaken for market saturation indicated by any reduction in imports, installs and certificate creation.

Addendum

1. Rationale

The Energy Savings Industry Association (ESIA) is pleased to provide on 26 February 2020 this Addendum to our submission of 31 January 2020 in response to the Victorian Energy Upgrades (VEU) Lighting Activities Issues Paper released on 5 December 2019 by the Victorian Department of Environment, Land, Water and Planning (DELWP).

Additional information provided in this Addendum focuses on the case for Part 34 (Commercial Lighting) continuation of certain activity types and is based on new data provided by some ESIA members that are deeply engaged in the sector.

These ESIA member businesses will lose 50% to 70% of their pipeline of opportunity under the VEU with proposed changes when considering HIDs, T5s and CFLs. This equates to the same lost opportunity for emissions abatement. These member businesses stated that pipelines of opportunity for these upgrade types are not drying up, rather they have generally been consistently buoyant even after several years as 'live' jobs.

2. ESIA position deviates significantly from the Government's proposal

The ESIA position deviates significantly from the Government's proposal in key areas highlighted in red in Table 1 below.

Table 1 – Key areas where ESIA position deviates from the Government's Proposal		
Activity	**Government Proposal**	**ESIA Position**
Part 34 (Commercial Lighting)		
HID replacement	Phase out by Feb 2021	*Phase out to Dec 2025*
T5 and CFL replacement	Phase out by Feb 2021	*Continue*
T8 and T12 replacement	Continue	Continue
Part 21 (Residential Lighting)		
All activities	Phase out by Feb 2021	• *Phase out to Dec 2025* • *Abatement factors to reflect those applying to HID replacement (7 years)*
Part 35 (Non-building based)		
Mercury vapour lamp replacement	Remove from Aug 2020	*Continue*
Other lamp replacement	Continue	Continue
Part 27 (Public Lighting)		
Mercury vapour lamp replacement	Remove from Aug 2020	*Continue*
Other lamp replacement	Continue	Continue
Project Based Activities		
		All lighting technologies and space types eligible under PBA

3. Saturation of HIDs, T5 and CFL replacements has not been reached

The ESIA supports the Government's position that it is not the role of the VEU to deliver 100% replacement of inefficient lighting fixtures. However, the ESIA strongly maintains that there remains a large enough pool of opportunity to warrant continued inclusion of certain technologies under Part 34 that are proposed to be removed including HIDs, T5s and CFLs.

3.1. Why Part 34 VEEC creation has decreased

As opposed to the government's claims of 'saturation', the ESIA provides alternative reasoning for the significant reduction in commercial lighting VEEC creation over the past 18 months:

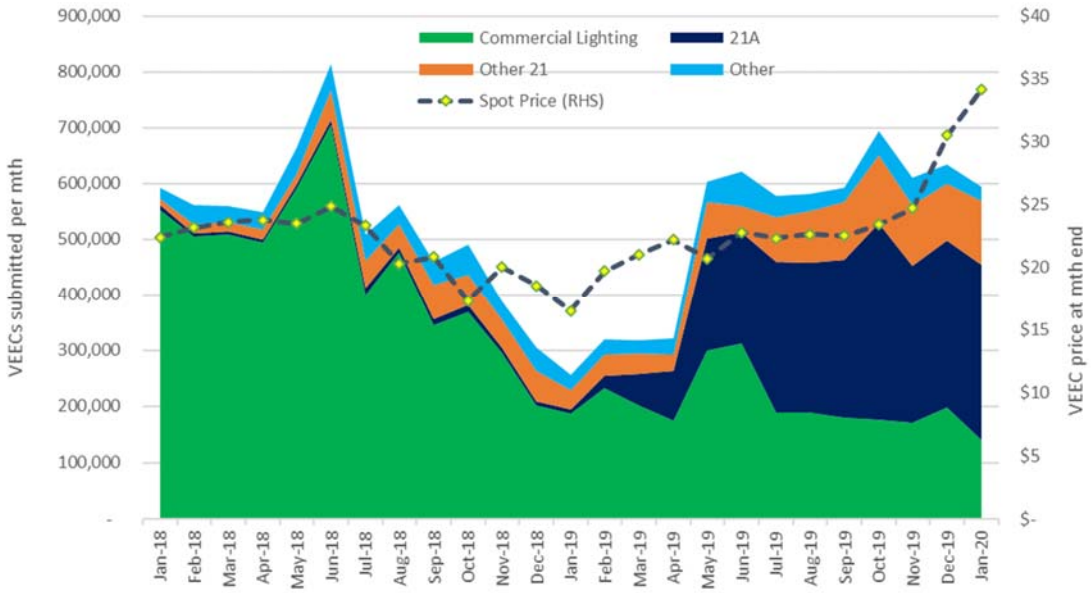
- The reduction in forward creation from 10 years to seven years for these activities led to a 30% reduction in the number of VEECs that can be claimed, which means that the payback to customers has become significantly longer. This means that the VEEC price needs to be the equivalent of at least $34 for payback to remain the same as prior to the discount.

- Commercial lighting activities have been squeezed out by the overly generous abatement (more than 34 years of forward creation) for Part 21A activities which means that those upgrades are now free. The VEEC price started to fall from mid-2018, a drop from $24 to $18, in response to the expected significant creation to come from Part 21A. The VEEC price subsequently increased from January 2019 due to delays in getting 21A compliance issues resolved such as requiring installation by licensed electricians. The availability of significant levels of VEECs from free 21A activities meant that the VEEC price was lower than otherwise might have been the case and resulted in Part 34 activities being less attractive.

- ESIA members gradually redirected resources to Part 21A rather than Part 34 activities.

Figure 1 demonstrates monthly VEEC creation over the relevant period. Notably, the spot price increased from November 2019 was due to the release of the government's Lighting Issues Paper and VEU Target RIS. The two-month period following was obviously insufficient enough time for the market to switch to Part 34 upgrades, a significant impact being commencement of the Christmas holiday period with businesses, including certificate creators and installers, closing from the Friday before Christmas (19 December) and for much of January. During February there has been a resurgence in commercial lighting VEEC creation and upgrade activity.

Figure 1 – Monthly VEEC creation and VEEC spot price January 2018-2020.



4. The case for extending HID, T5 and CFL technologies under Part 34

The ESIA respectfully submits that a rapid phase-out of HID, T5 and CFL technologies over the next 12 months (by Feb 2021 at latest) would be a major policy mistake. This position in based upon industry evidence that:

- A significant pool of opportunity remains which will not otherwise be upgraded without support from the VEU. New ESIA member data reveals a far greater pool than modelled by the government's consultant or previously ascertained by members.
- These types of upgrades are not Business As Usual (BAU) and will deliver additional, significant energy savings and greenhouse gas emissions reductions that will not otherwise be realised without support of the VEU to 2025.
- Due to project complexities and long approval processes, a possible a 12-month removal window is signalling uncertainty and investment risk to the market and some negotiations may cease imminently.
- These upgrades will support cash flow and investment certainty and confidence as businesses transition to new models to deliver on emerging upgrade opportunities under the VEU.
- Alternatively, adverse impacts of inadequate transition time, where an overlap of activity upgrades are less likely to occur, will result in significant job losses (estimated 1,000 FTE positions), as well as loss of skills particularly for non-'free' upgrades. This will come at a time when businesses should ideally be investing and upskilling to support new activities development under the VEU in consultation with government.
- The adverse impact of the corona virus outbreak is impacting LED lighting product the adverse impact of the corona virus outbreak is impacting LED lighting product supply chains as a majority are manufactured in China. Any slowdown of related upgrades therefore should not be mistaken for market saturation indicated by any reduction in imports, installs and certificate creation.

5. Lighting modelling report estimates not reflective of industry pipeline data

As acknowledged in the Lighting Modelling report, the modelling is imperfect (pp2-8). Therefore, the ESIA believes data provided by industry regarding sales pipeline opportunities needs serious consideration by government. Samples of evidence provided in this report clearly support the case that the modelling is not reflective of the market opportunity. *(Refer to Appendix 1)*

The ESIA seeks deeper engagement with government in future to test modelling assumption scenarios against industry experience, prior to finalising modelling.

The ESIA seeks clarification on whether the modelling takes into consideration allowance for the pool of opportunity likely to become available with the inclusion of large energy users previously exempted from the VEU.

5.1. HID upgrade opportunities

The Issues Paper states on p20: 'Recently, the volume of HID lamp replacements has decreased, suggesting the pool of opportunity for replacements is decreasing.'

Opportunities are 10 times more than modelled for industrial upgrades: One ESIA member alone has 10 times the volume of HID fixtures for industrial space types in their pipeline (39,000) than that estimated in the Government's lighting modelling report for industrial buildings which indicates that the remaining HID opportunity in the industrial sector is 3,236 units at the end of 2019 [i]. (Refer to Figure 2 below, ID26, Stock 2019b).

Saturation estimates for industrial sector unlikely: The report estimates that those 3,236 units are the remainder of a total of 576,000 units (Refer to Figure 2 below, ID 26,27,27a, Stock 2017). This is a saturation of 99.5%, which is highly unlikely or realistic for any upgrade type, and is not supported by industry pipeline intelligence at stated above.

Saturation estimates at the end of 2019 unlikely: The report estimates that the remaining pool of opportunity for HID replacement under Part 34 at the end of 2019 stands at 78,000 fixtures (Refer to Figure 2 below, ID 4,15, 26, Stock 2019b) out of a total of 1.3 million fixtures when considering non-office (571,036), office (167,351) and industrial (575,895) sectors stock. (Refer to Figure 2 below, stock 2017, ID 4,5,5a, 15,16,16a,26,27,27a) This represents a saturation of 94%, which also is highly unlikely or realistic for any upgrade type, and is not supported by industry pipeline intelligence at stated above.

Figure 2 – Excerpt of Annexe 16. Fixture stock – initial estimates

16. Fixture stock - initial estimates

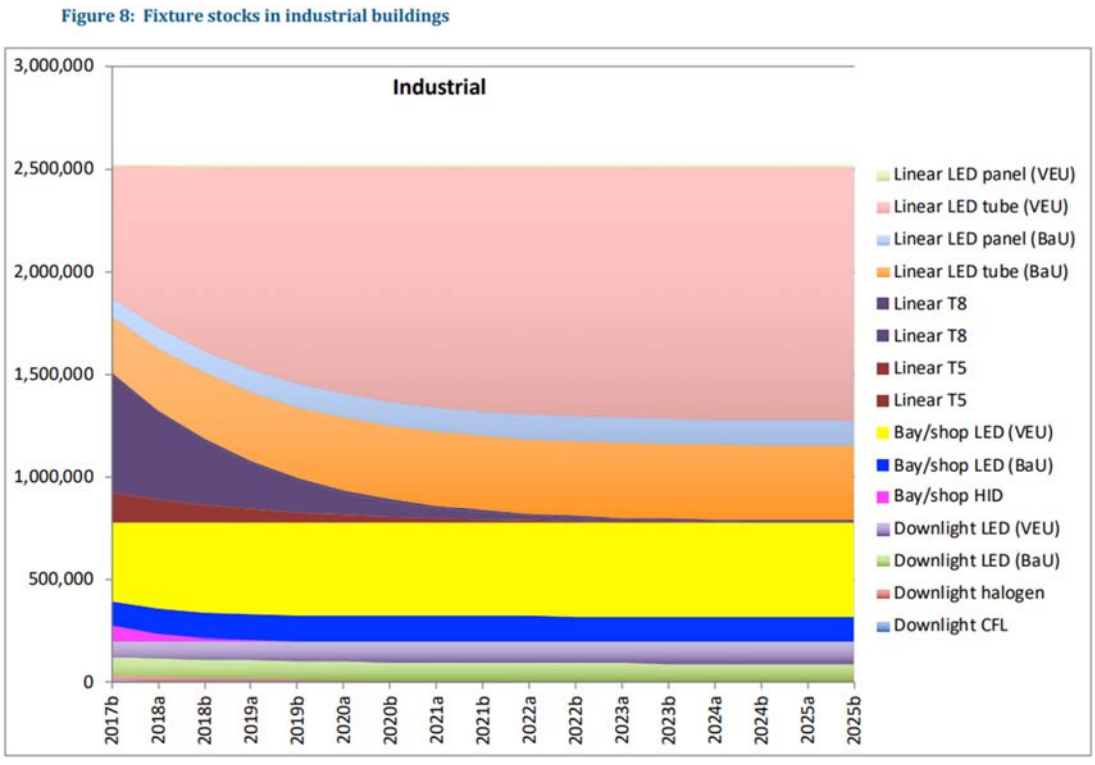
ID	Part	Sector	(Baseline) Fixture	(Upgrade) Fixture	Stock 2016	Split	BaU per 6 mnths (%)	Delta stock 2017	Stock 2017
1	34	Non-Office	Downlight CFL	Downlight LED (VEU)	172,405	50%		-23,827	148,579
2	34	Non-Office	Downlight halogen	Downlight LED (VEU)	187,830	50%		-53,468	134,362
3	34	Non-Office	Downlight LED (BaU)	Downlight LED (VEU)	818,244		5.0%	18,012	836,256
3a	34	Non-Office	Downlight LED (VEU)		507,388			59,283	566,671
4	34	Non-Office	Bay/shop HID	Bay/shop LED (VEU)	335,904			-56,317	279,587
5	34	Non-Office	Bay/shop LED (BaU)	Bay/shop LED (VEU)	100,771		5.0%	16,795	117,566
5a	34	Non-Office	Bay/shop LED (VEU)		134,361			39,522	173,883
6	34	Non-Office	Linear T5	Linear LED tube (VEU)	1,334,156	30%		-104,349	1,229,807
7	34	Non-Office	Linear T5	Linear LED panel (VEU)					
8	34	Non-Office	Linear T8	Linear LED tube (VEU)	3,359,037	70%		-243,480	3,115,557
9	34	Non-Office	Linear T8	Linear LED panel (VEU)					
10	34	Non-Office	Linear LED tube (BaU)	Linear LED tube (VEU)	1,055,133	75%	5.0%	175,995	1,231,128
11	34	Non-Office	Linear LED panel (BaU)	Linear LED panel (VEU)	351,711	25%	5.0%	58,665	410,376
11a	34	Non-Office	Linear LED tube (VEU)		630,562	98%		104,153	734,715
11b	34	Non-Office	Linear LED panel (VEU)		12,869	2%		9,016	21,885
12	34	Office	Downlight CFL	Downlight LED (VEU)	50,656	55%		-8,749	41,907
13	34	Office	Downlight halogen	Downlight LED (VEU)	33,928	45%		-16,034	17,894
14	34	Office	Downlight LED (BaU)	Downlight LED (VEU)	221,185		5.0%	4,229	225,414
14a	34	Office	Downlight LED (VEU)		149,948			20,554	170,502
15	34	Office	Bay/shop HID	Bay/shop LED (VEU)	98,442			-10,060	88,381
16	34	Office	Bay/shop LED (BaU)	Bay/shop LED (VEU)	29,532		5.0%	4,922	34,455
16a	34	Office	Bay/shop LED (VEU)		39,377			5,138	44,515
17	34	Office	Linear T5	Linear LED tube (VEU)	360,644	30%		-38,760	321,884
18	34	Office	Linear T5	Linear LED panel (VEU)					
19	34	Office	Linear T8	Linear LED tube (VEU)	984,417	70%		-90,440	893,976
20	34	Office	Linear T8	Linear LED panel (VEU)					
21	34	Office	Linear LED tube (BaU)	Linear LED tube (VEU)	285,219	75%	5.0%	50,440	335,659
22	34	Office	Linear LED panel (BaU)	Linear LED panel (VEU)	95,073	25%	5.0%	16,813	111,886
22a	34	Office	Linear LED tube (VEU)		95,565	98%		61,516	157,080
22b	34	Office	Linear LED panel (VEU)		1,950	2%		432	2,382
23	34	Industrial	Downlight CFL	Downlight LED (VEU)	17,241	50%		-4,293	12,947
24	34	Industrial	Downlight halogen	Downlight LED (VEU)	46,957	50%		-23,110	23,847
25	34	Industrial	Downlight LED (BaU)	Downlight LED (VEU)	81,824		5.0%	3,210	85,034
25a	34	Industrial	Downlight LED (VEU)		50,739			24,194	74,932
26	34	Industrial	Bay/shop HID	Bay/shop LED (VEU)	338,762			-261,562	77,199
27	34	Industrial	Bay/shop LED (BaU)	Bay/shop LED (VEU)	101,629		5.0%	16,938	118,567
27a	34	Industrial	Bay/shop LED (VEU)		135,505			244,624	380,129
28	34	Industrial	Linear T5	Linear LED tube (VEU)	215,821	20%		-65,365	150,456
29	34	Industrial	Linear T5	Linear LED panel (VEU)					
30	34	Industrial	Linear T8	Linear LED tube (VEU)	846,905	80%		-261,460	585,445
31	34	Industrial	Linear T8	Linear LED panel (VEU)					
32	34	Industrial	Linear LED tube (BaU)	Linear LED tube (VEU)	234,987	75%	5.0%	39,852	274,839
33	34	Industrial	Linear LED panel (BaU)	Linear LED panel (VEU)	78,329	25%	5.0%	13,284	91,613
33a	34	Industrial	Linear LED tube (VEU)		368,561	98%		270,193	638,754
33b	34	Industrial	Linear LED panel (VEU)		7,522	2%		3,496	11,018
34	35	Non-building	Bay/shop HID	Bay/shop LED (VEU)	3,000			-150	2,850
35	35	Non-building	Bay/shop LED (BaU)	Bay/shop LED (VEU)	900		5.0%	150	1,050
35a	35	Non-building	Bay/shop LED (VEU)		0			0	0
36	35	Non-building	Linear T8	Linear LED tube (VEU)	100,000			-5,000	95,000

Stock

2017b	2018a	2018b	2019a	2019b	2020a
148,579	121,880	99,266	80,233	64,324	51,123
134,362	109,541	88,631	71,134	56,599	44,621
836,256	849,453	860,057	868,470	875,043	880,081
566,671	604,992	637,913	666,030	689,901	710,042
279,587	156,335	86,293	47,631	26,291	14,512
117,566	131,361	138,966	143,048	145,182	146,236
173,883	283,340	345,778	380,357	399,564	410,289
1,205,211	969,106	773,840	613,386	482,435	376,331
24,596	24,465	24,328	24,184	24,033	23,876
3,053,246	2,391,559	1,853,373	1,419,941	1,074,576	802,535
62,311	61,913	61,496	61,060	60,605	60,129
1,231,128	1,389,381	1,513,769	1,610,489	1,684,802	1,741,139
410,376	463,081	504,484	536,650	561,332	580,007
734,715	1,421,023	1,988,080	2,452,406	2,828,992	3,131,337
21,885	22,940	24,099	25,353	26,693	28,114
41,907	37,354	33,248	29,548	26,217	23,220
17,894	15,306	13,033	11,040	9,299	7,783
225,414	228,144	230,515	232,564	234,328	235,836
170,502	174,913	178,922	182,565	185,873	188,878
88,381	76,563	66,133	56,948	48,879	41,807
34,455	38,835	42,619	45,877	48,672	51,060
44,515	51,953	58,599	64,526	69,800	74,483
315,446	274,686	238,643	206,824	178,787	154,131
6,438	6,423	6,408	6,392	6,376	6,359
876,097	764,346	665,041	576,961	498,999	430,147
17,880	17,833	17,785	17,734	17,682	17,628
335,659	379,960	418,493	451,906	480,785	505,657
111,886	126,653	139,497	150,633	160,257	168,544
157,080	250,395	334,224	409,413	476,736	536,900
2,382	2,571	2,779	3,005	3,247	3,503
12,947	9,890	7,461	5,553	4,072	2,938
23,847	18,990	14,990	11,723	9,077	6,953
85,034	86,777	88,123	89,145	89,906	90,460
74,932	81,104	86,187	90,341	93,706	96,410
77,199	34,930	15,805	7,153	3,236	1,464
118,567	122,124	123,542	123,982	123,969	123,739
380,129	418,841	436,548	444,762	448,691	450,692
147,447	113,897	87,233	66,207	49,768	37,028
3,009	2,993	2,976	2,959	2,940	2,921
573,738	424,476	309,634	222,448	157,207	109,145
11,709	11,634	11,556	11,474	11,388	11,299
274,839	301,562	321,396	335,896	346,317	353,657
91,613	100,511	107,109	111,927	115,382	117,807
638,754	785,826	900,769	989,520	1,057,171	1,108,046
11,018	11,226	11,452	11,695	11,952	12,223
2,850	2,581	2,337	2,116	1,916	1,735
1,050	1,191	1,318	1,432	1,535	1,628
0	129	246	352	449	537
95,000	86,984	81,208	76,756	73,611	69,756

Part of the report modelling discussed above is illustrated in Figure 3 below: Fixture stocks in industrial buildings, p 17, Bay/shop HID.

Figure 3 – Fixture stocks in industrial buildings



5.2. T5 upgrade opportunities

ESIA member experience indicates that a relatively small proportion of offices have had LED retrofits undertaken, which would typically include a significant number of T5 replacements. T5s have been the mandated minimum standard under Building Code for years, hence the prevalence.

T5 and T8 fixture replacement deliver similar energy savings. For example, an LED 18 Watt light can replace either a:

- Twin T5 2x28 Watt fitting – which will deliver a 68% energy savings; or
- Twin T8 2x36 Watt fitting – which will deliver a 75% energy saving.

These savings are comparable to an LED 100-Watt light replacing either a Metal Halide 400-Watt fitting or Mercury Vapour 400-Watt fitting. For this reason, the ESIA proposes the T5s remain under the VEU. (Refer to Figure 4.)

Figure 4 – Comparable energy savings for lighting upgrades: 68-75%

5.3. CFL upgrade opportunities

A significant amount of CFL opportunities exist in member pipelines ranging conservatively up to 10%. These opportunities represent significant abatement potential. For example:

- Twin 22 Watt (plus ballast) total LCP 50W replaced with a 20 Watt LED – will deliver a 60% energy saving; and
- Single 18 Watt (plus ballast) total LCP 26 Watt with a 12 Watt LED – will deliver a 54% energy saving.

One ESIA member company demonstrates that T5 and CFL upgrades represent 30% of their total live pipeline opportunity: around 200,000 VEECs which would likely take two years to deliver assuming these jobs get closed immediately. However, it is more reasonable to expect those jobs will take another six months to close, which leaves a very short installation runway should the proposed Feb 2021 phase-out date proceed.

6. Market saturation in comparison to other jurisdictions

In recent weeks, the ESIA interviewed major lighting supplier members to capture perspectives on remaining opportunities in the retrofit market across Australia. Figure 5 below indicates a reasonable consensus. Notably, the level of market penetration in the retrofit market is influenced by certificate price: a higher price will deliver higher saturation of upgrades as more options become free, as well as lifting penetration of activities that are not free.

Figure 5 – Typical lighting upgrade hot opportunities and market penetration observations

On-the-street experience: typical retrofit lighting upgrade 'hot' opportunities and market penetration observations (ESIA 26 Feb 2020)

Typical upgrade	Eg - VEU Activity Type	Incumbent	LED Upgrade	Longterm effective upgrade	Watt reduction	% Watt reduction	Market Penetration				
							VIC	NSW	ACT	SA	QLD
Residential	21D	50W dimmable downlight	5W dimmable downlight	High	45W	90%	Low	Low	Low	Low	Very Low
	21A	75W incandescent/ 45W halogen	7W LED bulb	Low	68-38W	90-85%	Medium - High	Low	High	Medium	Very Low
	21C	50W non-dimmable downlight	5W non-dimmable downlight	Low	45W	90%	High	Low	High	Medium	Very Low
Commercial											
Office buildings	34	35W florescent troffer	24W LED panel	High	14W	31%	Low	Low	Low	Low	Very Low
Office buildings	34	35W florescent batten	24W LED batten	High	11W	31%	Low	Low	Low	Low	Very Low
Sports lighting	34	2000W sports light	600W sports light	High	1400W	70%	Low	Low	Low	Low	Very Low
Factory small-medium	34	400W metal halide high bay	100W LED high bay	High	300W	75%	High	Medium	High	Medium	Very Low
Factory medium-large	34	400W metal halide high bay	100W LED high bay	High	300W	75%	Medium	Medium	Medium	Medium	Very Low

Figure 5 indicates that high saturation has been achieved in Part 34 HID upgrades in small-to-medium factory sites in Victoria. These upgrades are typically simpler and more straightforward sites where decision-making is easier. Such upgrades have typically been free. In comparison, the same upgrade types have had lower uptake in medium-to-large sites where upgrades are often more complex, with multiple layers of decision-making and greater capital contribution costs that extend sales and installation time frames.

7. HIDs deliver large abatement opportunities per fitting not reflected in modelling

The lighting modelling focussed on the perceived relatively small number of HIDs fixtures remaining. A key justification for retaining HIDs is their considerable emissions abatement reduction per fitting. This can be a factor of 8 to 1 per fitting in favour of HIDs versus, for example, T8 or T12 technologies. See Figure 6.

Figure 6 – Emission abatement HID versus T8 or T12: 8:1

Area Name	Building Name	Deemed Hours	HVAC	Baseline Lamp Name	Lamp Watts	Ballast Name	Upgrade Name	LCP	VEECS
Office	Class 5 - Office	3,000	Y	T8 or T12	36	EEI=B2 (Magnetic)	LED Panel 25W	25	1.99
Warehouse	Class 7b - Warehouse	5,000	N	MV High Bay	400	Magnetic	High bay 125W	125	16.01

8. HID, T5 and CFL replacement not BAU

8.1. VEU analysis not transparent

The ESIA has requested that the data and consultant's report that influenced this VEU decision be made public.

While this information is not publicly available, it is understood that the report relied in part to lighting product import data which shows a reduction in the number of HIDs imported and a significant increase in LED imports. Key considerations regarding the use of import data include:

a) Relying on the number of fixtures is misleading as HIDs are significantly higher wattage than other technology types. For example, the generous abatement provided to 21A activities have resulted in very high levels of LED imports over the past year.

b) The significant reduction in HID fixtures is also likely to result from the growth of LED high bays in the new building and refurbishment market, which is the largest market for lighting. (It is accepted the LED high bays are now BAU in the new and refurbishment market.)

c) There are still a range of HIDs available on the market and being imported to service the maintenance market and there is not reason to believe that customers are replacing failed lamps with anything other than like to like.

8.2. NSW comparison

The NSW Government considers commercial lighting by space type. The NSW Government has acknowledged that the lighting retrofit market remains additional and this is based on the time it takes for a building or site to be refurbished.

Notably, HID replacement (fixtures and fittings) in industrial sites in NSW were increased from 10 to 11.7 years. (See Figure 7) In comparison, in Victoria they were reduced in 2018 from 10 to seven years. These are comparable activities as they both involve replacement of the full fixtures and fittings.

Figure 7 – Years of forward creation for commercial lighting in NSW – by space type

Space type	NSW Previous (Yrs)	NSW – Regional (Yrs)	NSW – Metro (Yrs)
A. Other	10	10	7.3
B. Office	10	10	7.4
C. Industrial	10	11.7	11.7
D. Retail	10	10	7.4
E. Public	10	12	12

For more information regarding this submission, please email comns@esia.asn.au

[i] Lighting Modelling for VEU Program Target Setting – Final Report. Prepared for Department of Environment, Land, Water & Planning (Victoria), 30 May 2019. Beletich and Associates.

ESIA Submission:
Regulatory Impact Statement
VEET Amendment Regulations 2020
December 2019

Victorian Energy Upgrades (VEU)

31 January 2020

Submitted via the portal https://engage.vic.gov.au/victorian-energy-upgrades/targets

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Introduction

The Energy Savings Industry Association (ESIA) is pleased to make this submission in response to the Regulatory Impact Statement (RIS) Victorian Energy Efficiency Target Amendment (Prescribed Customers and Targets) released on 5 December 2019 by the Victorian Department of Environment, Land, Water and Planning (DELWP). This paper relates to the Victorian Energy Upgrades (VEU) program.

About ESIA

The Energy Savings Industry Association (ESIA) is the peak national, independent association representing and self-regulating businesses that are accredited to create and trade in energy efficiency certificates in market-based energy efficiency schemes in Australia. These activities underpin the energy savings schemes which facilitate the installation of energy efficient products and services to households and businesses. Members represent the majority of the energy efficiency certificate creation market in Australia. Schemes are established in Vic, NSW, SA and ACT. Members also include product and service suppliers to accredited providers within the schemes. As well, the ESIA represents member interests in national initiatives that include energy efficiency such as the Federal Government's Climate Solutions Fund.

Further engagement with the Victorian Government

We welcome the opportunity to discuss this submission prior to a Response to Consultation scheduled for publication in February 2020. For any queries, please contact comns@esia.asn.au

The Victorian Government published the following questions for consideration

1. What is your view on the expansion of the program to a larger set of activities?
2. What is your view on the new exemption process for trade-exposed large energy users?
3. What is your view on the costs and benefits of the proposed target?
4. What is your view on how the proposed target will stimulate innovation?
5. What is your view on how the proposed target will stimulate participation?

(Source: https://engage.vic.gov.au/victorian-energy-upgrades/targets)

Overview

Level of the Target

The Victorian Government is proposing to implement Option 4 of the RIS which involves a slight increase on the 2020 target of 6.5 million tonnes to 7.3 million tonnes of CO_2 equivalent emissions abatement by 2025. The Government is proposing to phase out some key commercial lighting upgrades and proposing to increase the short fall penalty level from $50 per tonne to $112 per tonne.

The VEU one of the Victorian Government's cornerstone policy measures to reduce emissions and support the State in achieving zero net emissions target by 2050.

Responses to questions

1. **What is your view on the expansion of the program to a larger set of activities?**

   The ESIA welcomes expansion to a larger set of activities. We recognise and welcome the importance of introducing and stimulating new activities and methods to achieve the targets proposed in the RIS. Target increases from 2021-2025 are greatly welcomed. The ESIA looks forward to consulting further with the Government on these initiatives. It is essential to reduce transaction costs and simplify methods to deliver lowest cost abatement.

2. **What is your view on the new exemption process for trade-exposed large energy users?**

   The ESIA supports the proposed approach if the Government reviews the effectiveness of the Opt Out, to ensure that those entities doing so deliver required energy management plans and roll out initiatives that deliver significant abatement, and also that there is significant rigour in supporting Opt In.

3. **What is your view on the costs and benefits of the proposed target?**

   The ESIA would prefer that the targets in Option 5, rather than the RIS-preferred Option 4, be adopted. This further target increase would be possible should our recommendations be adopted to continue lighting to 2025 with some adjustments and additions *(Refer to ESIA Submission: VEU Lighting Activities Issues Paper, 31 Jan 2020)*, and to streamline Project-Based Activities (PBA) *(refer further in this submission to Appendix 1 – Ideas for streamlining PBA: reducing risk and costs)* and to allow for a priority household target (PHT).

4. **What is your view on how the proposed target will stimulate innovation?**

   The target is likely to stimulate innovation if recommendations by the ESIA regarding lighting continuation, PBA method streamlining and PHT are adopted. Businesses need to have confidence in robustness of methodologies and not be subject to capricious changes by Government such as arbitrary changes to eligibility without basis in fact (for example, proposed phase out of T5s). Targets should be set to 2030 as innovation and participation require similar stimulus. *(For elaboration see response to Q5)*

5. What is your view on how the proposed target will stimulate participation?

a) **Greater long-term certainty of VEU targets will stimulate more robust participation** over the next decade. The greatest challenge to this is the target setting process for the VEU as currently legislated requires the Government to set a target on a five-yearly basis, with the RIS considering setting of targets for the 2021 to 2025 period.

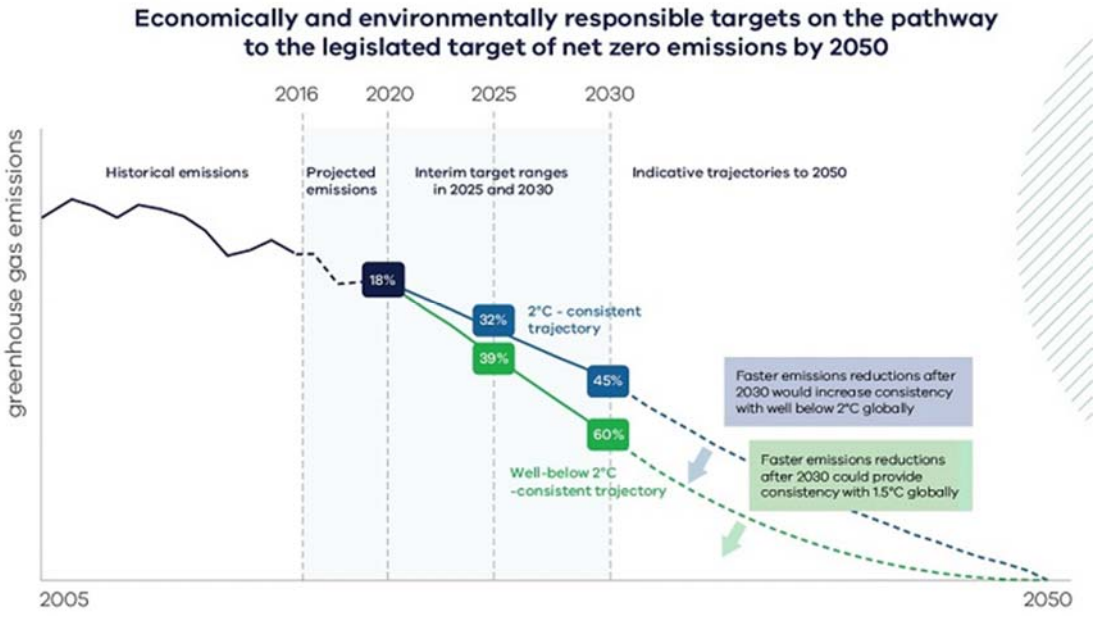
b) **The VEU target process is not fully synchronised with the target setting process for Victoria's Emissions Reduction Target** (ERT) to 2050 where the Government has stated that it will announce interim 2025 and 2030 emission reduction targets by end of March 2020. This disconnect opens a policy development gap. That is, it may become clear that the VEU target could be greater to support the ERT to 2030.

In comparison, the NSW Government has addressed this issue with its Energy Savings Scheme (ESS) by extending that scheme to 2050, consistent with its net zero emissions target by 2050, and by increasing the ESS target from 8.5% in 2025 to 13% by 2030. This approach provides industry with a 10-year runway to invest, innovate and participate.

c) **The ESIA recommends that the Government legislate to extend the life of the VEU Scheme to 2050** consistent with its zero net emission target by 2050 and provide firm targets to 2030 so that industry has confidence to invest.

The adequacy or otherwise of the currently RIS-preferred VEU target Option 4 needs to be considered within this context – putting Victoria on the pathway to net zero emissions by 2050. (Refer to chart 1 below)

Chart 1



(Source: Independent Expert Panel: Interim Emissions Reduction Targets for Victoria: 2021-2025 and 2026-2030, https://www.climatechange.vic.gov.au/reducing-emissions/interim-targets)

The 2016 Paris Agreement involved all signatory countries agreeing to targets that would keep global warming to well below two degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius if possible.

Victoria has just experienced over the 2019-20 summer what a one-degree Celsius higher temperature means. The costs of not taking action on climate change have proven to be extremely high and certainly higher than that modelled in the RIS. Communities expect governments to make genuine, evidence-based efforts to keep them safe and this means aiming to keep within a 1.5-degree Celsius increase.

d) **The ESIA recommends that the government proceed with implementing Option 5** (four million tonnes of abatement more than the preferred option 4) which we believe is more in line with long term desirable Victorian carbon reduction targets and would not be as expensive as modelled in the RIS if our recommendations listed below are included. This scenario would deliver lower cost abatement which would negate the need to increase the shortfall penalty level by as much as proposed in the RIS.

   i. **Accelerated phase out of HIDs and T5s under Part 34 is not warranted on BAU grounds**. *(Refer to ESIA Submission: VEU Lighting Activities Issues Paper)* The phase out should be extended to the end of 2025 which will mean that cost effective abatement that would not otherwise have taken place occurs which reduces VEEC prices and costs to customers.

   ii. **Streamline and simplify Project Based Activity (PBA) methodologies** to reduce transaction costs and friction points which would deliver additional cost-effective abatement beyond that allowed for in the RIS. *(Refer to Appendix 1)*

   iii. **Introduce a priority household target** which will deliver abatement that will not happen otherwise *(Refer to SA and ACT schemes)*

e) **Explore reducing the proposed shortfall penalty level from $112** (and adjust with CPI) if the above ESIA recommendations are implemented which will deliver lower cost abatement and justify a higher target (Option 5). Ie, inclusion of lighting may give reason to remodel the penalty price which may result in the reduced figure. Notably, the VEU has always delivered at lower cost than modelled.

f) **Emissions factors for electricity and the target need to be synergistic to stimulate activity:** it is understood that some stakeholders may be proposing a slower reduction in the electricity emissions factor as proposed from 1.095 in 2020 to 0.393 in 2025. If the Government does consider a slower reduction, then the ESIA would expect that there would be a corresponding increase in the target to ensure that the required emissions reductions are achieved.

g) **Changing emissions factor each year requires increased flexibility to realistically reflect reductions:** as the electricity emissions factor is changing significantly from 2021

to 2022 this will create significant differential in the value of abatement from year to year and will create increased urgency to complete projects. (The number of certificates will change significantly depending on whether installation occurs on 31 December versus one day later on 1 January. Whereas the actual energy savings will be almost the same). The ESIA believes that the Government should allow some increased flexibility in the definition of completion date or installation date for the relevant activity. This issue needs further exploration due to the number of variables and ramifications for different activities.

h) **Determine other incentive opportunities under the VEU that may require legislative changes** which could be addressed in a review of the Act during 2020, such as introducing incentives and targets for:

   i. **Peak demand reduction** *(Refer to NSW Government Demand Reduction Scheme announced in November 2019)*

Appendix 1

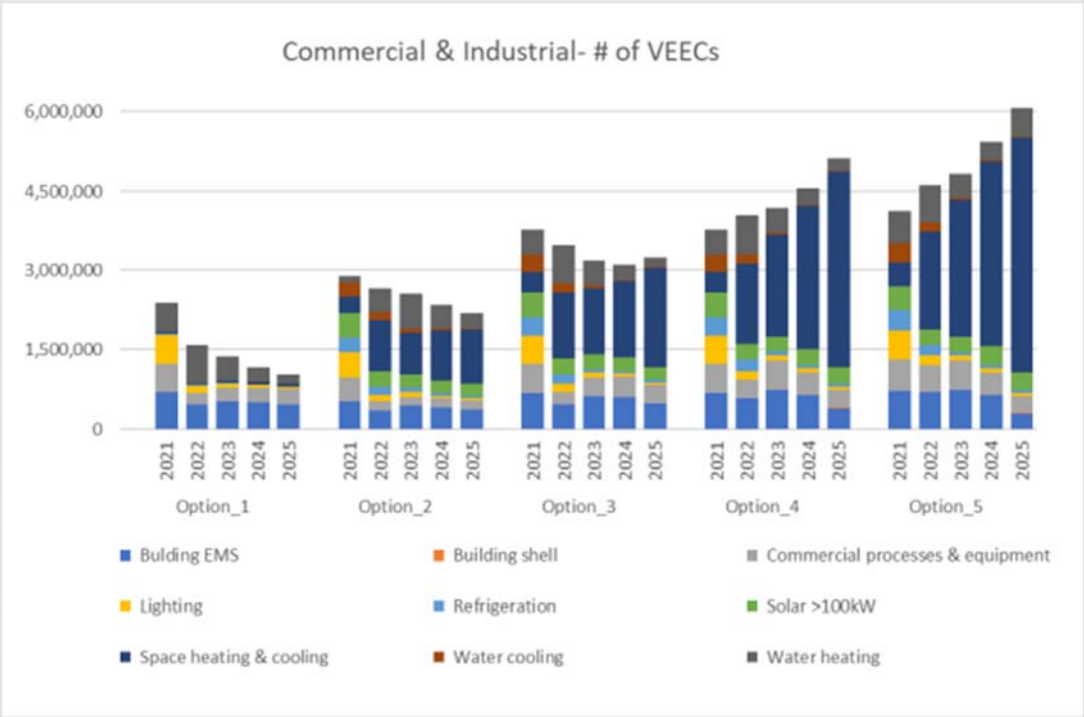
Ideas for streamlining PBA: reducing risk and costs

Whichever VEU target option the Victorian Government adopts, the ESIA calls for efforts to streamline the PBA method to reduce the risks and costs for common activity types.

Such streamlining will also provide a better approach to deliver the policy goals overarching the Government's proposed VEU Lighting Activity changes. More consultation and investment by government in expertise to develop PBA is required as a priority.

Delivery of current and increased targets will require a significant increase in energy savings activity, in addition to lighting upgrades. As illustrated below in Figure 20 of the RIS (p77), a significant portion of untapped and cost-effective energy savings upgrade opportunities will need to be delivered under the PBA method.

Figure 20: Number of VEECs created under each VEU Option for commercial and industrial activity types (including exempt large energy users)



The ESIA commends the Government on developing the PBA method which allows a robust and flexible way of calculating energy savings for a very wide range of activities. This flexibility ensures incentives are available for as wide a range of additional activities as possible and encourages continued innovation.

However, a biproduct of this flexibility is a higher level of complexity and uncertainty incurred than simpler (but limited) default savings methods. This in turn translates to higher compliance costs and regulatory risk, which put upward pressure on certificate prices necessary for PBA activities to be viable.

Greater risk under PBA

<u>Under all VEU methods</u>, activity proponents take risks:

1. Risk, and bearing of the cost, of selling and implementing an activity to VEU requirements.
2. Risk of certificate price fluctuation.

<u>Under the PBA method</u>, there are two more risks which result in higher costs than default savings factor methods:

3. **Risk that expected savings and the anticipated number of incentives won't be realised.**

   Under default factor methods such as Part 34 and Part 21 there are significant administrative costs incurred by proponents to demonstrate an activity has been implemented appropriately. But once this is demonstrated, they can be confident to receive the expected number of certificates because the Government takes responsibility for savings risk by assuming an average savings for a given activity, thereby spreading the risk across the market.

   In comparison under PBA, even if a project is implemented appropriately, individual projects may sometimes deliver less savings than anticipated and thereby provide lower incentives than expected. In aggregate, this means higher certificates prices are required to offset this risk to drive large numbers of additional PBA projects.

4. **Compliance risk.**

   Under default savings factor methods the evidentiary requirements for compliance are clearly stipulated in advance.

   In comparison, the PBA method provides the proponent with a high degree of discretion to choose what and how to measure, provided their approach is approved by a Measurement and Verification Professional (MVP) and the Essential Services Commission (ESC). This discretion is crucial for providing the flexibility to drive innovation and new/unusual project types. However, it also introduces a level of risk for every implementation that the MVP and/or ESC will not approve the approach. Moreover, the PBA method has a significantly greater reporting burden to provide the evidence MVPs and the ESC need to assess how savings are measured. In aggregate, this again means that to drive large numbers of additional PBA projects, higher certificate prices are required to offset this risk and compliance costs.

For new or non-standard project types, these risks are unavoidable, and it is important that the PBA method retains the flexibility to allow such projects.

Reduce risk with supplementary methods for common project types

Alternatively, the ESIA believes that for a number of common activities it is possible to streamline the PBA method and reduce these risks, thereby allowing these activities and scheme targets to be delivered at lower costs. This could be achieved by developing supplementary PBA methods for common project types.

Supplementary PBA methods would significantly reduce risks and compliance costs. This in turn would allow high volumes of PBA activities to be delivered at lower certificate prices than currently possible.

To address these issues, the NSW ESS policy maker has proposed to adopt an approach like that in place in California to stipulate the measured parameters for common and well understood activity types, for example Heating, Ventilation and Air Conditioning (HVAC) upgrades.

The VEU could provide pre-approved M&V plans and M&V report templates that stipulate the measured parameters, measurement boundaries, metering approaches, and regression algorithms etcetera which will be accepted.

This approach would enable project proponents to focus on ensuing required data is gathered and reported correctly (as they do with default methods), rather than demonstrating it was appropriate in the first place to collect the data.

In this way, proponents would be able to develop standardised implementation approaches for a sub-set of streamlined PBA activities, helping to deliver them at greater scale and lower cost.

The ESIA continues to recommend that the Victorian Government retain the existing PBA method to allow flexibility and innovation for new project types, until streamlined methods can be in turn developed.

For more information regarding this submission, please email comns@esia.asn.au

ESIA Submission
Draft Statutory Review Report
ESS Review 2020

NSW Energy Savings Scheme

20 May 2020

Submitted via energysecurity@environment.nsw.gov.au to:
Director, Climate Change and Energy Savings Policy
NSW Department of Planning, Industry and Environment (DPIE)

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Executive Summary

The Energy Savings Industry Association (ESIA) is pleased to make this submission in response to the New South Wales (NSW) Energy Savings Scheme (ESS) Draft Statutory Review Report released on 30 April 2020 by the NSW Department of Planning, Industry and Environment (DPIE). (Refer to https://energy.nsw.gov.au/media/2036/download)

Part 1 – ESS meeting objectives and still valid

This section responds to the single question in the consultation paper seeking other evidence or matters that should be considered to indicate whether the ESS objectives are being met and remain valid. Other matters to better meet these objectives are discussed in Parts 2 to 6.

Part 2 – ESS needs a new administrator

This section highlights major concerns with the current ESS administrator, the Independent Pricing and Regulatory Tribunal (IPART), and the need for a new administrator to be established. A new entity could be tailored to service the needs of the new Energy Security Safeguard, including an expanded and extended ESS and the new demand reduction scheme. Administration needs will be unique to this growing sector, which will involve regulating hundreds of small businesses rather than the comparatively few large government and privately owned utilities and agencies that IPART was originally designed to regulate.

The focus of a new administrator needs to be on best practice industry development to support delivery of scheme objectives, whilst continuing to ensure scheme integrity.

The Clean Energy Regulator (CER) provides an outstanding example of an efficient and effective administrator. The CER was established in 2012 specifically as part of a market intervention and business development initiative. As stated on its website: the CER is a government body responsible for accelerating carbon abatement for Australia through the administration of the National Greenhouse and Energy Reporting scheme, Renewable Energy Target and the Emissions Reduction Fund. The CER is responsible for administering legislation that will reduce carbon emissions and increase the use of clean energy (http://www.cleanenergyregulator.gov.au/About (downloaded 15/5/20).

A new regulator could potentially serve other similar schemes across Australia in the future. This would align with the COAG energy council commitment as part of the National Energy Productivity Plan (NEPP) for harmonisation of energy savings schemes. An analogy is the NSW administration of the nationally focused NABERS sustainable building scheme.

Part 3 – ESS audit regime needs to be streamlined

This section highlights that the audit ESS audit regime needs to be streamlined, particularly for more complex projects. It is very costly for participants, lacks commercial pragmatism and flexibility with a 'one-shot' requirement to get things right, and an arduous and unbalanced review approach that can result in failure to create certificates. This approach creates a major barrier to getting such projects over the line in a reasonable and effective manner and viable timeframe to meet commercial imperatives. An overhaul to the audit approach would particularly assist with mobilising more projects under the PIAM&V method – especially if the administrator could consider multiple submissions for the same activity to bring funding forward. (The Victorian Energy Upgrades (VEU) program allows the same project to be submitted up to three times as more data becomes available over time of implementation.

IPART requires 12 months of data prior to creation of certificates, which is a very hard to sell to persuade an energy customer to commit to undertake a project.)

Part 4 – ESS needs to streamline PIAM&V activities

This section highlights ideas for streamlining Project Impact Assessment with Measurement and Verification (PIAM&V) to reduce risk and costs and so increase uptake of these often more complex and significant energy-saving types of upgrades.

Part 5 – Key principles to drive method development and maintenance

This section highlights key principles that will reduce the risks and costs discussed in Part 3.

Part 6 – Further opportunities: new activities and methods

This section highlights opportunities that are discussed in more detail in the ESIA submission to the DPIE Energy Security Target and Safeguard consultation paper due 22 June 2020.

About ESIA

The Energy Savings Industry Association (ESIA) is the peak national, independent association representing and self-regulating businesses that are accredited to create and trade in energy efficiency certificates in market-based energy efficiency and demand reduction schemes in Australia. These activities underpin the energy savings schemes which facilitate the installation of energy efficient products and services to households and businesses. Members represent the majority of the energy efficiency certificate creation market in Australia. Schemes are established in Victoria, NSW, SA and the ACT. Members also include product and service suppliers to accredited providers within the schemes. As well, the ESIA represents member interests in national initiatives that include demand reduction and energy efficiency such as the Federal Government's Climate Solutions Fund.

Further engagement

We welcome the opportunity to discuss this submission prior to a final Statutory Review Report due to be tabled in Parliament by 30 June 2020.

For more information, please contact comns@esia.asn.au

1 ESS meeting objectives & still valid

The NSW Government invited submissions on the evidence presented in the Draft Statutory Review Report and posed the following question:

> **Is there any other evidence or matters that should be considered that would indicate whether the objectives of the Energy Savings Scheme are being met and remain valid?**

Responses were sought against the scheme objectives as defined in the Act. These are:

1. The principal object of this Part is to create a financial incentive to reduce the consumption of energy by encouraging energy saving activities.
2. The other objects of this Part are:
    a. to assist households and businesses to reduce energy consumption and energy costs, and
    b. to complement any national scheme for carbon pollution reduction by making the reduction of greenhouse gas emissions achievable at a lower cost, and
    c. to reduce the cost of, and the need for, additional energy generation, transmission and distribution infrastructure. (Source: https://energy.nsw.gov.au/media/2036/download)

1.1 ESIA Response

Findings provided in the Draft Report provide strong evidence that the ESS is meeting its objectives and that they remain valid. The ESIA supports the Review approach that the broad scheme design as a market-based certificates scheme remains appropriate. (p22). The ESIA commends the NSW government for recognising that the ESS, as a large-scale market-based scheme, can help transform energy efficiency markets, due to ongoing uptake barriers, by providing a long term framework that enables service providers to develop business models that are scalable and sustainable. Also, that the ESS remains a major initiative that supports NSW reducing energy consumption while stimulating strong economic growth. (pp 5-6)

In 2019 electricity consumption savings from the ESS were equivalent to 4% of grid-supplied electricity (p17). This provides a significant contribution to reducing wholesale electricity prices, residential and commercial energy bills and greenhouse gas emissions, the need to invest in energy infrastructure - including poles and wires and new peaking plant - to offset closure of the Liddell and Vales Point coal-fired power stations scheduled for decommissioning in the next decade. Energy savings available with gas upgrades and fuel switching from gas will play and increasing role in addressing gas supply shortfalls predicated within the next decade.

The ESIA commends the NSW Government on extending and expanding the ESS to 2050 with a more ambitious target, as announced in November 2019, under a newly named Energy Security Safeguard (Safeguard), to include a peak demand reduction scheme. This nation-leading initiative will be a crucial contributor to improving the resilience of NSW's energy supply and meeting the NSW target of net zero emissions by 2050.

2 ESS needs new administrator

This section highlights major concerns with the current ESS administrator, the Independent Pricing and Regulatory Tribunal (IPART), and the need for a new administrator to be established. A new entity could be tailored to service the needs of the new Energy Security Safeguard, including an expanded and extended ESS and the new demand reduction scheme. Administration needs will be unique to this growing sector, which will involve regulating hundreds of small businesses rather than the comparatively few large government and privately owned utilities and agencies that IPART was originally designed to regulate.

The focus of a new administrator needs to be on best practice industry development to support delivery of scheme objectives, whilst continuing to ensure scheme integrity. This will require deeper engagement and so a better understanding of the industry. This in turn will support better capacity building opportunities with the small-to-medium-enterprise (SME) businesses that the Government generally relies upon to deliver energy-saving services under the current ESS.

The Clean Energy Regulator (CER) provides an outstanding example of an efficient and effective administrator. The CER was established in 2012 specifically as part of a market intervention and business development initiative. As stated on its website: the CER is a government body responsible for accelerating carbon abatement for Australia through the administration of the National Greenhouse and Energy Reporting scheme, Renewable Energy Target and the Emissions Reduction Fund. The CER is responsible for administering legislation that will reduce carbon emissions and increase the use of clean energy (http://www.cleanenergyregulator.gov.au/About (downloaded 15/5/20).

The CER has a broader role than IPART. Because it is responsible for accelerating carbon abatement, it needs to support industry development to that end. It has a proven record for taking initiative in engaging with industry to improve its programs and reduce costs. Examples include driving engagement with industry to enhance regulation such as streamlining audit processes, publishing information on how the market is performing, and initiating a solar panel serial validation process for quality control.

A new regulator could potentially serve other similar schemes across Australia in the future. This would align with the COAG energy council commitment as part of the National Energy Productivity Plan (NEPP) for harmonisation of energy savings schemes. An analogy is the NSW administration of the nationally focused NABERS sustainable building scheme.

In recent years, IPART administrative and cultural issues have had direct impacts and knock-on effects that have been identified by the ESIA. The issues have direct impacts on the Accredited Certificate Providers (ACPs), customers and suppliers who deliver the energy-saving upgrades required to meet the ESS policy objectives by increasing the costs and lowering the savings possible under the scheme. Every dollar spent on inefficient administration is money that either need not be collected from NSW bill payers, or better yet could fund more savings for the same Scheme costs.

Regarding compliance costs, the current level of ESS compliance and associated financial risk is greater than required and experienced by some ASX-listed companies undertaking similar projects outside of the ESS. Some ESS participants have chosen to cease engagement, or not engage, in the program due to compliance costs and risk.

2.1 Root causes of need for a new administrator

To ensure the ESS is placed on a sound footing into the immediate and long-term future from 2021 to 2050, three root causes need to be addressed:

1. **Misalignment of the Administrator's mission with policy goals:** The mission of the Administrator should be to ensure the ESS delivers the greatest energy savings at the lowest long-term cost (including costs of compliance and the cost of undermining long term confidence to invest).
2. **Lack of formal roles and responsibilities:** An ESS Administrator has never formally been appointed nor its purpose and roles defined under the provisions of the Act. As a result, the Administrator role seems to be limited to the audit and compliance monitoring functions explicitly listed in the Act and Rule.
3. **IPART structure and capabilities:** While well suited to its core responsibilities, these do not provide IPART with key capabilities required for effective ESS administration. IPART's part-time tribunal structure is well suited to overseeing annual or multi-year regulatory processes. But as a very large, decentralised incentive program, the ESS requires delegation and decision-making that align with the timeframe expectations of the customers the Government hopes will undertake energy saving projects.

2.2 ESS improvements needed now

ESS objectives are being met and remain valid. To better meet these objectives and to ensure the ESS is on sound footing into the immediate and long-term future from 2021 to 2050, the following Quick Wins are recommended.

Of primary importance is the need for deeper industry engagement so the administrator can better understand the nature of projects and the implications of how audit and compliance processes can undermine industry's ability to deliver on the objectives of the scheme.

2.2.1 Quick wins

The following recommended Quick Wins would likely be undertaken by either the current administrator, a new administrator, and/or the NSW Government department responsible for the relevant policy (ie DPIE).

1. **Establish a customer service culture** recognising that delivery of the ESS objectives is wholly dependent on the businesses which deliver projects under the Scheme.
2. **Establish a formal appeals process** in such a way that secretariat staff recognise and respect the right of ACPs, Auditors and MVPs to administrative justice. *(While existing administrative review and judicial review processes are available (refer to IPART Fact Sheet – How to have an ESS decision reviewed, 12/12/19), a simpler less costly process is needed, and one for categories of ESS decisions not available under current processes.*
3. **Create certificate set-aside provisions for contested certificates** and lift trading restrictions on non-disputed 'certificates' so ACPs can afford to appeal decisions.
4. **Establish KPIs for Administrator response times** to ACP, Auditor and MVP queries.

5. **Establish a customer query ticking system** for the Administrator and customers to track queries from ACPs, Auditors and MVPs in line with KPIs.
6. **Establish and adhere to a process for publishing decisions and their rationale** for any technical ruling on new accreditations, requirements, MVP and audit findings.
7. **Respect its own independent auditor and MVP decisions and establish a continual improvement process** to ensure overall consistency, confidence and quality of decisions. *(Currently, ESS auditors perform a statutory function on behalf of the scheme administrator, so audits are not independent of IPART. A key limitation of the current process is the lack of opportunity for industry to effectively engage with the administrator to explore project approaches that would be acceptable. Then at audit stage, there is no opportunity to discuss considerations face-to-face that may serve to educate all parties on reasonable considerations.)*
8. **Establish an audit technical committee** to review new cases and contested decisions with membership from the Administrator, auditors, MVPs, ACPs and the Department. *(Currently, IPART is not able to engage in this way with ACPs. However, DPIE could do so. This would support education as a number one compliance tool.)*
9. **Establish MVP technical committee** to review new cases and contested decisions with membership from the administrator, auditors, MVPs and ACPs and the Department. *(Currently, IPART is not able to engage in this way with ACPs. However, DPIE could do so. This would support education as a number one compliance tool.)*
10. **Enable a non-binary proportional approach to job compliance** where actual benefits delivered can be recognised where issues are unprecedented and non-fraud related. *(Currently, the audit and compliance process tends to rule that certificate creation in relation to a project is either fully valid or fully invalid: a pass/fail. There needs to be opportunity where the parties can engage and support a determination that supports meeting the objectives of the ESS. The current approach is too inflexible and does not support industry development.)*

2.2.2 Strategic priorities

The following recommended Strategic Priorities would likely need to be directed by the NSW government's department responsible for the relevant policy (ie DPIE).

1. **Review best practice Administration of SME market-based schemes** to identify appropriate administrator roles, responsibilities and supporting capabilities.
2. **Conduct a capability assessment of IPART and other NSW agencies** and identify that which is best suited for the required mission and supporting capabilities of ESS Administration.
3. **Identify any outstanding capability gaps in the preferred agency** and develop a transition plan to ensure continuity of administration and provision of new capabilities.
4. **Publicly consult** on the proposed roles, responsibilities and supporting functions of the Administrator.
5. **Formally identify an appropriate Scheme Administrator** and issue terms of appointment.

3 ESS audit regime needs to be streamlined

This section highlights that the audit ESS audit regime needs to be streamlined, particularly for more complex projects.

It is very costly for participants, lacks commercial pragmatism and flexibility with a 'one-shot' requirement to get things right, and an arduous and unbalanced review approach that can result in failure to create certificates.

This approach creates a major barrier to getting such projects over the line in a reasonable and effective manner and viable timeframe to meet commercial imperatives.

An overhaul to the audit approach would particularly assist with mobilising more projects under the PIAM&V method – especially if the administrator could consider multiple submissions for the same activity to bring funding forward. (The Victorian Energy Upgrades (VEU) program allows the same project to be submitted up to three times as more data becomes available over time of implementation. IPART requires 12 months of data prior to creation of certificates, which is a very hard to sell to persuade an energy customer to commit to undertake a project.)

4 Ideas for streamlining PIAM&V: reducing risk and costs

The ESIA recommends streamlining of the PIAM&V method to reduce the risks and costs for common activity types. Streamlining will support the objectives of the ESS being met.

More consultation and investment by government in expertise to develop PIAM&V is required as a priority.

Delivery of current and increased targets will require a significant increase in energy savings activity, in addition to lighting upgrades. A significant portion of untapped and cost-effective energy savings upgrade opportunities will need to be delivered under the PIAM&V method.

The ESIA commends the Government on developing the PIAM&V method which allows a robust and flexible way of calculating energy savings for a very wide range of activities. This flexibility ensures incentives are available for as wide a range of additional activities as possible and encourages continued innovation.

However, a biproduct of this flexibility is a higher level of complexity and uncertainty incurred than simpler (but limited) default savings methods. This in turn translates to higher compliance costs and regulatory risk, which put upward pressure on certificate prices necessary for PIAM&V activities to be viable.

3.1 Greater risk under PIAM&V

Under all NSW ESS methods, activity proponents take risks:

1. Risk, and bearing of the cost, of selling and implementing an activity to ESS requirements.
2. Risk of certificate price fluctuation.

Under the PIAM&V method, there are two more risks which result in higher costs than default savings factor methods:

3. **Risk that expected savings and the anticipated number of incentives won't be realised.**

   Under default factor methods there are significant administrative costs incurred by proponents to demonstrate an activity has been implemented appropriately. But once this is demonstrated, they can be confident to receive the expected number of certificates because the Government takes responsibility for savings risk by assuming an average savings for a given activity, thereby spreading the risk across the market.

   In comparison under PIAM&V, even if a project is implemented appropriately, individual projects may sometimes deliver less savings than anticipated and thereby provide lower incentives than expected. In aggregate, this means higher certificates prices are required to offset this risk to drive large numbers of additional PIAM&V projects.

4. **Compliance risk.**

   Under default savings factor methods the evidentiary requirements for compliance are clearly stipulated in advance.

   In comparison, the PIAM&V method provides the proponent with a high degree of discretion to choose what and how to measure, provided their approach is approved by a Measurement and Verification Professional (MVP) and the IPART. This discretion is crucial for providing the flexibility to drive innovation and new/unusual project types. However, it also introduces a level of risk for every implementation that the MVP and/or IPART will not approve the approach. Moreover, the PIAM&V method has a significantly greater reporting burden to provide the evidence MVPs and the IPART need to assess how savings are measured. In aggregate, this again means that to drive large numbers of additional PIAM&V projects, higher certificate prices are required to offset this risk and compliance costs.

For new or non-standard project types, these risks are unavoidable, and it is important that the PIAM&V method retains the flexibility to allow such projects.

3.2 Reduce risk with supplementary methods for common project types

Alternatively, the ESIA believes that for a number of common activities it is possible to streamline the PIAM&V method and reduce these risks, thereby allowing these activities and scheme targets to be delivered at lower costs. This could be achieved by developing supplementary PIAM&V methods for common project types.

Supplementary PIAM&V methods would significantly reduce risks and compliance costs. This in turn would allow high volumes of PIAM&V activities to be delivered at lower certificate prices than currently possible. To address these issues, the NSW ESS policy maker, DPIE has proposed to adopt an approach like that in place in California to stipulate the measured parameters for common and well understood activity types, for example Heating, Ventilation and Air Conditioning (HVAC) upgrades.

As such, the ESS could provide pre-approved PIAM&V plans and report templates that stipulate the measured parameters, measurement boundaries, metering approaches, and regression algorithms etcetera which will be accepted. This approach would enable project proponents to focus on ensuing required data is gathered and reported correctly (as they do with default methods), rather than demonstrating it was appropriate in the first place to collect the data.

In this way, proponents would be able to develop standardised implementation approaches for a sub-set of streamlined PIAM&V activities, helping to deliver them at greater scale and lower cost. The ESIA continues to recommend that the NSW Government retain the existing PIAM&V method to allow flexibility and innovation for new project types, until streamlined methods can be in turn developed.

5 Key principles to drive method development and maintenance

The ESIA recommends seven key principles to drive NSW ESS method development and maintenance. The principles will reduce the risks and costs discussed in Part 3 of this submission.

1. **Schemes should provide methods for as broad a range of additional energy savings activities as possible** to allow the market to find implementation solutions.

2. **Additionality should reflect the likelihood of an activity occurring in the absence of the scheme** – considering regulatory requirements, the baseline rates of equipment and building stock turnover and the proportion of the market which undertakes early energy savings upgrades in the absence of schemes.

3. **Methods should seek to allow the standardised estimation of the energy savings** that could reasonably be expected from an instance of that activity under normal conditions.

4. **Methods should provide for the estimation of savings and demonstration of implementation in the simplest, lowest cost way,** while providing assurance product and installation quality and safety and mitigation of gaming, proportional risk and impact.

5. **Savings deeming periods should be transparent and based on a factor of both the timeframes that equipment will last** and adjusted for the likelihood it would have been replaced in that period.

6. Where the savings from given activity can be measured by multiple methods, **measurement approaches should result in outcomes that are on average consistent.**

7. **Changes should be made to methods with sufficient notice so as to avoid unreasonable business disruption** (for example stranded investments in products and staff), which in turn would increase compliance costs to cover sovereign risk and drive exit from the market of suppliers the Government requires to deliver new activities. A minimum of 12 months' notice should be required for changes that have a material impact on the commercial viability of activities currently conducted under the scheme unless safety issues are at stake.

6 Further opportunities: new activities and methods

This section highlights opportunities identified by various Australian Governments and that will be considered in the ESIA submission to the DPIE Energy Security Target and Safeguard consultation paper due 22 June 2020.

Activities identified in the NSW EST and Safeguard: the energy efficiency opportunity list

The ESIA acknowledges the significant pool of opportunity identified by the NSW Government to save electricity (15,579.7 GWh) and gas (10.9PJ) in NSW through more than 500 energy efficiency activities across residential, commercial, SME and industrial sectors. (Source: https://energy.nsw.gov.au/government-and-regulation/consultation/energy-security-target-safeguard, Energy efficiency opportunity list)

Activities identified in the VEU RIS 2019

The following opportunities were included in the Victorian Energy Upgrades (VEU program) Regulatory Impact Statement 2019: 'Main activities projected for the 2021-2025 period … Some of the key cost-effective measures identified', Dec 2019, p 83. (Source: https://engage.vic.gov.au/victorian-energy-upgrades/targets)

- Replacing a non-ducted gas heater with a variable refrigerant flow (VRF) air to air heat pump or split system air to air heat pumps
- Replacing a heating hot water (HHW) gas boiler with either a ground to water heat pump, an air to water heat pump or a water to water heat pump
- Installing a 100kw+ rooftop solar photovoltaic (PV) system
- Replacing a low-efficiency gas boiler with a high efficiency gas boiler
- Installing smart thermostats for ducted gas space heaters
- Integrated and disaggregated whole of building energy management and information systems (EMS).
- Upgrading or introducing electricity meter interface and appliance/webs services
- Introducing smart diverters for electric hot water storage systems to utilise excess solar energy produced by behind the meter rooftop solar PV systems.
- Upgrading IT equipment linked cooling systems
- Upgrading refrigeration EMS

Other recommendations from ESIA

- Rooftop solar behind-the-the meter, *with ability to export*
- More fuel switching: including to renewable fuels, and including from grid electricity, natural gas or LPG to biogas or biomass fuels.

For more information regarding this submission, please email comns@esia.asn.au