

The background of the cover features a dark blue rectangular area on the left side, which is partially overlaid by several large, overlapping, curved bands in shades of teal and light blue. These bands create a sense of movement and depth, resembling stylized waves or a large 'C' shape.

APGA Submission

Safeguard Mechanism Reforms Consultation Paper

20 September 2022

Contents

Executive Summary	3
1 Introduction	5
2 Existing Safeguard Mechanism foundation	6
2.1 Ability to scope swap risks increased emissions overall	6
2.2 Limited Safeguard Mechanism coverage risks driving higher cost carbon abatement.....	7
2.3 Consideration for increases in emissions which facilitate greater decreases in emissions.....	9
3 Features of Safeguard Mechanism supporting mechanisms	10
3.1 NGERs does not recognise all forms of renewable energy and emission reduction... ..	10
3.2 Reliance upon ERF creation of Australian Carbon Credit Units (ACCUs) risks impeding access to least cost carbon abatement.....	11
4 Proposed features of the Safeguard Mechanism Reforms	14
4.1 Concessions provided to EITE SMFs should not increase obligations on non-EITE SMFs.....	14
5 Answers to Consultation Paper Questions	16

List of Figures

Figure 1: Diffusion of Innovation Curve.....	24
Figure 2: Renewable Electricity Growth in Australia.....	25
Figure 3: Australian electric vehicle sales over time.....	25

Executive Summary

The Australian Pipelines and Gas Association (APGA) represents the owners, operators, designers, constructors, and service providers of Australia's pipeline infrastructure, connecting natural and renewable gas production to demand centres in cities and other locations across Australia. Offering a wide range of services to gas users, retailers and producers, APGA members ensure the safe and reliable delivery of 28 per cent of the end-use energy consumed in Australia and are at the forefront of Australia's renewable gas industry, helping achieve net-zero as quickly and affordably as possible.

APGA welcomes the opportunity to contribute to the Federal Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) consultation on Safeguard Mechanism Reforms (the **Consultation**).

APGA is committed to a net zero emission future for Australia by 2050 and supports the Federal Government's commitment to achieving 43% emissions reduction on 2005 levels by 2030. APGA understands that the reforms to the Safeguard Mechanism will play a role in achieving this outcome and provides its feedback throughout this submission in support of achieving the least cost emissions reduction pathway towards both 2030 and 2050 emissions reduction goals.

APGA supports the intent of the Safeguard Mechanism Reforms and agrees with the principles set out in the consultation paper. The proposal of a Safeguard Mechanism Credit (SMC) trading scheme within the Safeguard Mechanism Reforms demonstrates the practicality of how the Department and Ministers have approached the challenge of emissions reduction.

APGA is concerned that the foundation of the existing Safeguard Mechanism, its supporting schemes and frameworks, and some features of the reforms themselves risk undermining Australia's least cost emissions reduction goals. There are aspects of matters raised in the paper which could lead to higher emissions outcomes, impede access to least cost abatement, and level inequitable cost on Australian consumers and early movers.

The proposed reforms to the Safeguard Mechanism impact the gas infrastructure industry both directly and indirectly. Some gas transmission pipelines are Safeguard Mechanism Facilities (SMFs), and others could become SMFs in time. Additionally, at least 27% of SMFs are wholesale gas customers. APGA provides feedback within this submission with each of these impacts in mind, including the following key points.

Scope Swapping

Scope swapping, or replacing Scope 1 emissions with Scope 2 emissions, has the potential to undermine the emissions reduction effectiveness of the Safeguard Mechanism. If not addressed, SMFs could replace Scope 1 emissions with lower, equal, or even higher Scope 2 emissions to remain below their baseline, and even generate SMCs while increasing overall emissions.

The National Greenhouse and Energy Reporting (NGERS) and Emissions Reduction Framework (ERF) risk Safeguard Mechanism Effectiveness

The effectiveness of the Safeguard Mechanism to reduce emissions is dependant on the effectiveness of NGERS to accurately monitor Scope 1 emissions alongside the effectiveness of the ERF to generate Australian Carbon Credit Units (ACCUs) for genuine, least cost emissions reduction activities. However, NGERS does not recognise the consumption of renewable gases and the ERF is cumbersome to engage with and only considers a restricted spectrum of emissions reduction activities. This risks SMFs being seen to produce artificially high Scope 1 emissions and impeding SMFs from accessing ACCUs generated from least cost emissions reduction activities.

Concessions provided to Emissions Intensive Trade Exposed (EITE) SMFs should not increase obligations on non-EITE SMFs

If EITE SMFs are supported by the direct provision of SMCs or differentiated baseline decline rates and an equal proportion of emission reduction is not removed from the Safeguard Mechanism emission reduction target, non-EITE SMFs will have to reduce greater than their fair share of emissions. Being predominantly SMFs which provide domestic products and services, the cost of EITE SMF emissions reduction would flow onto Australian consumers. APGA recommends avoiding this by only pursuing the Low Emissions Technology Funding approach to EITE support.

APGA looks forward to further engagement with the Department and Ministers on these key points alongside all topics highlighted within this submission.

To discuss any of the details within this submission further, please contact APGA's National Policy Manager, Jordan McCollum, on +61 422 057 856 or jmccollum@apga.org.au.

1 Introduction

The following feedback is provided in the spirit of cooperation to support the development of the most effective set of Safeguard Mechanism Reforms. APGA supports the intent of the Safeguard Mechanism Reforms and agrees with the principles set out in the consultation paper. Balancing the principles of effective, equitable, efficient, and simple measures within the Safeguard Mechanism Reforms is key to delivering the least cost decarbonisation outcome for Australia. APGA considers there are certain aspects to the Safeguard Mechanism design that risk undermining this intent or misalignment with the principles which the reforms are designed to.

The source of these risks cover:

- The existing Safeguard Mechanism foundation, including:
 - The ability to Scope Swap may lead to increased emissions overall;
 - Limited coverage risking higher cost carbon abatement; and
 - No consideration for increased emissions from a single facility facilitating greater emissions reduction across the economy.
- The schemes and frameworks supporting the Safeguard Mechanism including:
 - NGERs not recognising all forms of renewable energy risks impeding access to least cost carbon abatement; and
 - Restrictive and cumbersome ACCU generation under the ERF risks impeding access to least cost carbon abatement.
- The Safeguard Mechanism Reforms themselves including:
 - Concessions provided to Emissions Intensive Trade Exposed (EITE) SMFs should not increase obligations on non-EITE SMFs.

If each of these points of concern can be addressed, APGA is confident that the Safeguard Mechanism Reforms can deliver a mechanism which is best placed to be effective, equitable, efficient and simple in delivering least cost emissions reduction for Australia. APGA also provides direct responses to questions raised within the Consultation paper in Section 5 below.

2 Existing Safeguard Mechanism foundation

There are a number of features of the existing Safeguard Mechanism which, if not addressed through the Safeguard Mechanism Reforms, risk undermining the intent and principles of the reforms, including:

- The ability to Scope Swap risks increased emissions overall;
- Limited Safeguard Mechanism coverage risks driving higher cost carbon abatement; and
- No consideration for increase emissions which facilitate greater decreases in emissions.

While these features have not caused considerable issues to date, the change in intent of the mechanism calls for these features to be reconsidered in this new context.

2.1 Ability to scope swap risks increased emissions overall

A key issue in the existing Safeguard Mechanism is the ability to reduce apparent emissions through scope swapping. Scope swapping occurs when a facility replaces a Scope 1 source of emissions resulting in a Scope 2 source of emissions rather than a carbon neutral alternative. As the Safeguard Mechanism only considers Scope 1 emissions, it is possible for an SMF to replace a source of Scope 1 emissions with a source of Scope 2 emissions. This is of particular concern where the Scope 1 emissions being replaced are less than or equal to the Scope 2 emissions being increased.

Practically speaking, this is a likely outcome if an SMF chose to replace on-site natural gas or diesel electricity generation with a grid electricity connection in most states and territories. Further, it would be completely possible for an SMF to replace natural gas use with a 100% coal-fired electricity Power Purchase Agreement (PPA) and be considered to have reduced emissions under the Safeguard Mechanism despite an increase in the SMFs combined Scope 1 and Scope 2 emissions.

A coal-fired PPA is used as the example here to demonstrate the potential for increased emissions. In discussing this risk with industry proponents there has been a broad view that despite being possible, it is unlikely to occur. However, SMFs tend to be owned by corporations which are required by law to act in the best interests of their shareholders. If replacing natural gas consumption with a coal-fired power PPA is the least cost approach for an SMF to comply with the Safeguard Mechanism, this risk is likely to be realised.

Emissions from grid-supplied electricity vary in each state and are not zero in any jurisdiction. For the purpose of Safeguard Mechanism reporting, a switch away from onsite fuel use to grid-electricity use will deliver an emission reduction as if the fuel use has been replaced with a carbon-free alternative.

Where there occurs, it means SMFs will reduce Scope 1 emissions and achieve its required reduction under the Safeguard Mechanism but increase Scope 2 emissions. This would undermine the intent of prescribing annual emission reductions through the Safeguard

Mechanism. At the extreme, it may be that the increase in Scope 2 emissions is greater than the decrease in Scope 1 emissions. At a minimum, the emission reduction will not be as great as implied by the Scope 1 numbers.

2.1.1 Credit generation on the basis of increased emissions

The risk represented by scope swapping can be exacerbated by the introduction of crediting and trading under the Safeguard Mechanism as SMCs could be generated for volume of emissions reduction when less emissions reduction has truly been achieved.

For the avoidance of doubt, APGA believes that a crediting and trading scheme will play an important role in ensuring least cost emissions reduction amongst facilities covered by the Safeguard Mechanism and is needed. APGA raises this point to emphasise the need to address the ability to scope swap within the Safeguard Mechanism.

2.1.2 Recommendation

Addressing this unintended consequence is not a trivial matter. Simply introducing coverage of Scope 2 emissions under the Safeguard Mechanism may have further unintended consequences still. Additionally, complex analysis to determine the best possible approach risks delaying delivery of the Safeguard Mechanism Reforms.

In order to resolve the potential for scope swapping, APGA recommends the introduction of an interim monitoring and auditing solution. Monitoring of NGERs data could compare the Scope 1 and Scope 2 emissions profiles of SMFs in order to determine the likelihood that an SMF has swapped Scope 1 emissions for equal or higher Scope 2 emissions. If such a swap is suspected, an audit of how the SMF has achieved their emissions reduction could be actioned and appropriate actions taken upon discovery of material scope swapping undermining emissions reduction.

2.2 Limited Safeguard Mechanism coverage risks driving higher cost carbon abatement

The proposed design within the Safeguard Mechanism Reforms facilitates pursuit of least cost carbon abatement amongst SMFs. By being limited to coverage of a specific subset of all facilities, it is highly probable that the least cost emissions reduction opportunities for Australia lay outside of the set of facilities currently identified as being SMFs. This leads to the likelihood that the Safeguard Mechanism Reforms will not generate the least cost emissions reduction opportunities for Australia, not achieving the Efficient principle of the Safeguard Mechanism Reforms.

This risk manifests in two ways:

1. Where a company owns SMFs and facilities not covered by the Safeguard Mechanism; and
2. Across the broader Australian economy

APGA recognises that the ERF creation of ACCUs could be used to capture emissions reduction beyond SFMs. However, APGA also flags in Section 3.2 of this submission that ERF creation of ACCUs is both restrictive and cumbersome. To avoid the risk of conflating the risks presented by limited Safeguard Mechanism coverage and challenges with the ERF, APGA will address this section of its submission without consideration of the ERF option.

2.2.1 Where a company owns SMFs and facilities not covered by the Safeguard Mechanism

A company that owns a mixture of SMFs and facilities not covered by the Safeguard Mechanism may be able to identify emissions reduction opportunities with lower cost of abatement within the facilities not covered by the mechanism. In this instance, companies will need to pursue the higher cost abatement opportunities within their SMFs in order to maintain Safeguard Mechanism compliances.

This outcome would not be in line with the reform's principle of efficient abatement, nor would it represent the least cost economy wide carbon abatement pathway for Australia as a nation. This in turn risks Australia's ability to achieve its 2030 emissions reduction targets. For the Safeguard Mechanism to maintain its efficiency principle, the mechanism needs to include an effective ability for companies to use emissions reduction from facilities not covered by the Safeguard Mechanism in place of emissions reduced by SMFs.

2.2.2 Across the broader Australian economy

Similar to the point above, the limited nature of the Safeguard Mechanism coverage it is likely that Australia's least cost carbon abatement opportunities lay outside of the coverage of the mechanism. Without an effective ability to consider emissions reductions outside of the mechanism, it will not be able to allow the market to find the lowest cost of abatement wherever it occurs.

2.2.3 Recommendation

The challenges highlighted here could be resolved through resolving the challenges with NGERS and the ERF highlighted in Section 3 of this submission.

In lieu of addressing these challenges, APGA recommends the Safeguard Mechanism Reforms include an ability for a company which owns a combination of SMFs and facilities not covered by the Safeguard Mechanism to be able to create SMCs from facilities not covered by the Safeguard Mechanism, or some other form of mechanism to consider these emissions reductions under the scheme. If the intent is to rely upon the ERF creation of ACCUs to address this concern, reform is required as detailed Section 3.2 of this submission.

2.3 Consideration for increases in emissions which facilitate greater decreases in emissions

Emission from gas use may go up as emissions go down. Emissions reduction is able to be achieved through increased VRE penetration in the NEM and decreases in coal or diesel use. Natural gas can facilitate each of these emission reduction activities, leading to a potential increase in emissions for gas infrastructure facilities covered by the Safeguard Mechanism.

CSIRO, The Grattan Institute and Frontier Economics have all identified that a 90% VRE Net Zero NEM can be achieved at least cost by using the firming capacity of dispatchable generation technologies such as Gas Power Generation (GPG)^{1,2,3}. This means that every 1MWh of GPG generation can enable 9MWh of VRE generation. Providing the firming support required to allow VRE to replace coal fired generation could result in an increase in some gas infrastructure emissions as we store and transport the gas required for generation.

Further, coal or diesel consumption likely contributes a substantially volume of emissions for some SMFs. Least cost emissions abatement for these SMFs may come from conversion of existing thermal equipment from coal or diesel fuelled to natural gas fuelled. This has been seen in a number of cases already to substantially reduce facility emissions across industry in Australia and internationally, with natural gas uptake representing a substantial proportion of emissions reduction experienced by the United States of America in particular.

In both of these instances, gas infrastructure will facilitate emissions reduction, and may increase facility emissions as a result. APGA recommends that the Safeguard Mechanism should not negatively impact infrastructure that increases its emissions while facilitating much greater levels of emissions reduction by enabling either of the above circumstances. While it does not have a specific recommendation for how to achieve this, APGA requests further engagement with the Department and Ministers on this topic.

¹ Gencost 2021-22, CSIRO 2022

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUK EwiWuZTmy5j6AhVT8DgGHXV1CY8QFnoECA0QAQ&url=https%3A%2F%2Fwww.csiro.au%2F-%2Fmedia%2FNews-releases%2F2022%2FGenCost-2022%2FGenCost2021-22Final_20220708.pdf&usq=AOvVaw2JY8zCK12bPXSkVLm8hnnwW

² Go for Net Zero, The Grattan Institute 2021

<https://grattan.edu.au/wp-content/uploads/2021/04/Go-for-net-zero-Grattan-Report.pdf>

³ Potential for Gas-Powered Generation to support Renewables, Frontier Economics 2021

https://www.apga.org.au/sites/default/files/uploaded-content/field_f_content_file/210219_potential_for_gpg_to_support_renewables_-_final_report_0.pdf

3 Features of Safeguard Mechanism supporting mechanisms

The Safeguard Mechanism relies upon emissions reporting under NGERs and ACCU generation under the ERF. APGA flags concerns about the function of both mechanisms with respect to the reformed intent of the Safeguard Mechanism which if not addressed risk undermining the intent and principles of the reforms. Specifically:

- NGERs does not recognise all forms of renewable energy and emission reduction; and
- Reliance upon ERF creation of ACCUs risks impeding access to least cost carbon abatement.

While these features have not caused considerable issues to date, their impact on the Safeguard Mechanism alongside the change in intent of the mechanism calls for these features to be reconsidered in this new context.

3.1 NGERs does not recognise all forms of renewable energy and emission reduction

The reliance of the Safeguard Mechanism Reforms upon the NGERs framework impedes the Mechanism's ability to recognise renewable energy use, including the use of renewable gases such as hydrogen and biomethane. The uptake of renewable gases by SMFs using natural gas today would result in Scope 1 emissions reduction. However, this is currently ignored by the NGERs framework.

This blind spot of the NGERs framework risks impeding all four principles of the Safeguard Mechanism Reforms. As renewable gases such as hydrogen and biomethane will represent the least cost gas use decarbonisation pathway for many SMFs, the inability for NGERs to consider their use as carbon neutral makes both NGERs and the Safeguard Mechanism Reforms ineffective and inefficient. In turn this will either inequitably require these SMFs to bare an unnecessarily high cost for other emissions reduction solutions or be subject to the complexity of engaging with the ERF as highlighted in Section 3.2 of this submission.

3.1.1 Recommendation

APGA ultimately recommends that NGERs be reformed to recognise renewable energy in all of its forms, including the contracting of renewable gases delivered via pipeline infrastructure. However, NGERs reform will require careful consideration and consultation in and of itself which risks delaying delivery of the Safeguard Mechanism Reforms.

APGA recommends an interim measure of creating an in-scheme opt-in audit system for legitimate emissions reductions which are not yet formally recognised under NGERs. Such an interim measure would allow SMFs to engage an auditor in the development of emissions reduction actions and demonstrate the genuine nature of the reductions taken to a predetermined general level of scrutiny. From here, SMCs could be credited to the SMF in

line with an annual audit until such point as the emissions reduction are formally recognised under NGERs.

3.2 Reliance upon ERF creation of Australian Carbon Credit Units (ACCU) risks impeding access to least cost carbon abatement

It is possible that the creation of ACCUs under the ERF is intended to address the gaps highlighted in Section 2.2 above which addressed the possibility of least cost decarbonisation occurring outside of Safeguard Mechanism coverage. However, the creation of ACCUs under the ERF is both restrictive and cumbersome.

The following sections are based upon anecdotal feedback provided by project proponents seeking to secure ERF Offset Project status and the ability to generate ACCUs and is expected to align with concerns raised through the Independent Review of Australian Carbon Credit Units.

3.2.1 Restrictive

It is not possible to create ACCUs under the ERF for all emissions reduction opportunities. This is because ACCUs can only be generated for activities covered by an ERF methodology, the sum total of which do not cover the full range of emissions reduction activities. As a result, many emissions reduction opportunities are left on the table, impeding the ability for the Safeguard Mechanism Reforms to adhere to its Efficiency principle.

By their very nature, the creation of an ACCU must occur on an identified reduction basis. The solution to this problem applied under the ERF is the specification of specific ERF Methodologies – a time consuming process which is only pursued for the few perceived emissions reduction opportunities which can represent the largest opportunity for emissions reduction across the economy.

Where ACCUs are only intended to be a voluntary scheme this is not too big of an issue. However, the Safeguard Mechanism Reforms tie ACCUs to emissions reduction of a limited number of facilities within a mandatory emissions reduction scheme. As such, the inability to generate an ACCU from any legitimate emissions reduction activity impedes the ability for these facilities to access least cost emissions reduction which occurs outside of the Safeguard Mechanism.

As highlighted in Section 2.2, companies which own SMFs and facilities not covered by the Safeguard Mechanism may have access to legitimate emissions reduction opportunities elsewhere in their businesses. If those opportunities are not already covered by an ERF Methodology or are too bespoke to ever have an ERF Methodology created, they will be unable to facilitate the transfer of this least cost emissions reduction to the SMF. Further, if unrelated facilities not covered by the Safeguard Mechanism are also unable to generate ACCUs due to the uniqueness of their emissions reduction capability, the Safeguard

Mechanism will be unable to incentivise these emissions reduction options through the purchase of their ACCUs.

Without the restrictive nature of the ERF being addressed, the Safeguard Mechanism risks being unable to access all least cost decarbonisation opportunities, hence driving higher cost decarbonisation outcomes for Australia.

3.2.1.1 Practical examples

The following are few practical examples of how the restrictive nature of the ERF prevents ACCU generation from genuine emissions reduction activities, impeding the ability of the Safeguard Mechanism Reforms from achieving its principle of Efficient emissions reduction. This is not an exhaustive list, rather an indication of the challenge faced by facilities in generating ACCUs.

Renewable Gases including Hydrogen and Biomethane

In many cases, the uptake of renewable gases will be the least cost gas use decarbonisation option for gas users. However, there is not yet an ERF method for the displacement of natural gas use by hydrogen, and only a constrained subset of Biomethane feedstocks is currently considered under the Biomethane ERF Methodology. This is despite the recognition in the National Hydrogen Strategy and Australia's Bioenergy Roadmap of the ability to displace natural gas emissions through the injection of these renewable gases into gas pipelines and networks.

As is highlighted by Bioenergy Australia, the current feedstocks available for consideration the Biomethane ERF Methodology does not include some of the greatest and least cost feedstock options of animal waste products and agricultural crop residues. Despite Biomethane projects based on these feedstocks being able to deliver genuine carbon abatement, ACCUs are not able to be generated from projects based on these projects. This restricts SMFs being able to access least cost ACCUs in order to drive least cost emissions reduction via the Safeguard Mechanism.

Fugitive Emissions

There is no ERF Methodology for gas infrastructure which reduces its fugitive emissions outside of the flaring of otherwise vented emissions. Where a gas infrastructure service provider owns a combination of SMF and non-SMF gas infrastructure, reducing fugitive emissions across all infrastructure may be a least cost approach to emissions reduction overall. Unfortunately, due to the lack of ERF methodology, fugitive emissions reductions on non-SMF gas infrastructure is not able to generate ACCUs in order to be considered by the SMF gas infrastructure owned by the same company. This will drive the gas infrastructure service provider to acting upon higher cost emissions reduction on its SMF at greater cost to consumers. APGA notes that this acts in opposition to the National Gas Objective and potentially the National Electricity Objective.

APGA recently held a member workshop considering actions which could be taken to reduce fugitive emissions of gas infrastructure. This workshop uncovered a range of potentially least cost carbon abatement options through fugitive emissions reduction. These included in order of potential scale:

- Recompression or use of compressor dry seal gas through facility upgrades⁴;
- Recompression of pressure vessel maintenance blowdown gas through operational technologies such as the ZeeVac⁵; and
- Replacement of gas actuated equipment with instrument air or electric equipment.

While this could account for a substantial percentage reduction of exiting fugitive emissions from gas infrastructure, it is not possible to generate ACCUs from these activities.

3.2.1.2 Recommendation

Ideally, every potential emissions reduction opportunity would have its own ERF Method. This, however, is not practical considering the near infinite emissions reduction possibilities and the naturally constrained resources of any process for administering the ERF. In order to prevent the unavoidably limited number of ERF Methodologies from impeding ACCU generation from genuine least cost carbon abatement opportunities, APGA recommends the creation of a generic “ERF by Audit” method.

Such a method would enable the approval of any project which is able to satisfy a generic set of conditions through a bespoke audit process, rather than fitting into one of the ERF Methodology silos. While each individual audit would likely take longer than approval under an ERF Methodology, a lengthy process would be better than no process at all. Care would need to be taken to ensure that all bars set by the Independent Review of Australian Carbon Credit Units are maintained through such a generic methodology.

3.2.2 Cumbersome

Difficulty in engaging with the ERF Offset Project approval process impedes the ability to deliver timely access to least cost carbon abatement opportunities under the Safeguard Mechanism. The Additionality requirements of engaging with the process prior to FID risks missing genuine additional abatement opportunities simply due to the timing of application, further missing the opportunity for ACCU creation for least cost abatement.

The difficulties faced by the Clean Energy Regulator and potential ERF Offsets Projects proponents alike are likely to increase as the Safeguard Mechanism increases demand for ACCUs. This is a challenge that is already impeding ACCU creation, can be predicted to worsen, and hence must be addressed in the immediate future.

3.2.2.1 Recommendation

In order to avoid departmental resourcing from impeding the creating of ACCUs for least cost carbon abatement opportunities, APGA recommends that efforts to streamline the process and remove green tape be pursued.

⁴ METHANE EMISSIONS REDUCTION SOLUTIONS FOR GAS COMPRESSORS, Solar Turbines 2022 <https://s7d2.scene7.com/is/content/Caterpillar/CM20190808-c2f10-ac20b>

⁵ Tremco Pipeline Equipment’s DIY pigging and instant emissions reduction technologies, The Australian Pipeliner 2021 <https://www.pipeliner.com.au/2021/09/20/tremcos-diy-pigging-and-instant-emissions-reduction-technologies/>

4 Proposed features of the Safeguard Mechanism Reforms

While APGA supports the intent and principles of the Safeguard Mechanism Reforms, APGA flags the following for further consideration in the context of the Safeguard Mechanism Reforms.

4.1 Concessions provided to EITE SMFs should not increase obligations on non-EITE SMFs

The Safeguard Mechanism Reforms consider options for supporting Emissions Intensive Trade Exposed (EITE) SMFs in order to ensure *Australian businesses are not competitively disadvantaged relative to international competitors, and that emissions do not 'leak' overseas.*

If EITE SMFs are expected to contribute less to Safeguard Mechanism emissions reduction targets than non-EITE SMFs and the Safeguard Mechanism emission reduction target is not reduced in line with EITE obligation reductions, then non-EITE SMFs will have to deliver greater emissions reduction. As non-EITE SMFs will include all SMFs providing goods and services to Australian consumers, it will be Australian consumers who pay for the emissions reduction that EITE SMFs are being excused from contributing towards.

Options for Low Emissions Technology Funding as proposed within Section 5.2 of the Consultation could achieve the Safeguard Mechanism Reforms intended goal without negatively impacting Australian consumers. However, direct provision of SMCs or instituting differentiated baseline decline rates for EITEs would increase non-EITE SMFs emission reduction obligations, leveling the cost of export industry decarbonisation on Australian consumers.

Considering each of the proposed options, APGA observes the following:

Low Emissions Technology Funding

- Application of the Low Emissions Technology Funding approach supports the upfront capital cost of emissions reduction for EITE SMFs without negative flow on effect to SMFs providing products and services to Australian consumers.

Direct provision of SMCs to EITEs

- The Direct Provision approach requires non-EITE SMFs to produce sufficient SMCs for the Government to obtain under a reserve mechanism.
- SMFs providing products and services to Australian consumers would need to achieve more than an equitable share of emissions reduction in order to produce sufficient SMCs to ensure that the Safeguard Mechanism deliver a fixed emission reduction target.
- The cost of this additional emissions reduction would be borne by the Australian consumers who the non-EITE SMFs provide products and services to.

Differentiated baseline decline rates for EITE SMFs

- The differentiated baseline decline rate approach actively sets a lower emissions reduction requirement for EITE SMFs.
- For the Safeguard Mechanism to achieve a fixed emissions reduction target, this would require SMFs providing products and services to Australian consumers undertake a higher level of emissions reduction.
- The additional cost of this higher rate of emissions reduction would be borne by the Australian consumers who the non-EITE SMFs provide products and services to.

When considering the equitability principle of the Safeguard Mechanism Reforms, equitable outcomes for Australian consumers must also be considered. It is not possible to achieve equitable outcomes for Australian consumers when taking the direct provision or differentiated baseline approaches while seeking a fixed emissions reduction target under the Safeguard Mechanism. In using these approaches, either the scheme is equitable, but the emissions reduction target reduces, or the emissions reduction target stays the same and the scheme inequitably levels the cost of emissions reduction on Australian consumers.

4.1.1 Recommendation

APGA recommend that the Low Emissions Technology Funding approach to EITE support be pursued. In the event that either the direct provision or differential baseline approach is pursued, APGA recommend that the volume of emissions reduction sought through Safeguard Mechanism baseline reduction be reduced by the volume no longer expected to be provided by the EITE sector to ensure that Australian consumers are not levelled with the cost of EITE emissions reduction.

5 Answers to Consultation Paper Questions

Question 1: What should the Safeguard Mechanism's share of Australia's climate targets be?

Reputex modelling of Federal Labor's Powering Australia Plan identifies the Safeguard Mechanism as accounting for 7% of emissions reduction relative to Australia's total 2005 emissions, alongside 15% electricity emissions reduction and 1% vehicular emissions reduction⁶. While this may be possible, targeting 7% emissions reduction through a reformed Safeguard Mechanism would not necessarily deliver least cost abatement in line with the principles of the consultation.

Emissions which cost less to abate than those covered by the Safeguard Mechanism should be pursued before emissions covered by the Safeguard Mechanism. The percentage of Australian emissions not covered by the Powering Australia Plan which cost less to abate than emissions covered by the Safeguard Mechanism should be removed from the 7% of 2005 emissions proposed to be covered by the Safeguard Mechanism and addressed via these lower cost means. Not doing so drives a higher immediate cost of abatement for Australia.

Once a target has been identified, how EITE's needs to be taken into account. As addressed in Section **Error! Reference source not found.** and the answers to questions 11, 12 and 13, reductions in EITE obligations should not be levelled on Australian consumers. Avoiding this would require reductions in the Safeguard Mechanism emission reduction target in line with reductions in EITE baseline decline rates of the quantity of direct provision of SMCs. Targets should also consider new SMFs, in particular new EITE SMFs, in such a way that does not increase the emissions reduction obligations of other SMFs in the process.

Question 2: Should we retain, and build on, the existing production-adjusted (intensity) baseline setting framework or return to a fixed (absolute) approach?

APGA notes that this consultation appears to demonstrate a preference for the existing production-adjusted (intensity) baseline setting framework. Responses to this consultation are on the basis that this framework will be maintained.

Whichever way this decision goes, APGA encourages DCCEEW to consider that emission from gas use may go up as total Safeguard Mechanism emissions go down as discussed in Section 2.3. Emissions reduction is able to be achieved through increased VRE penetration in the NEM and decreases in coal or diesel use. Natural gas can facilitate each of these emission reduction activities, leading to a potential increase in emissions for gas infrastructure facilities covered by the Safeguard Mechanism. Gas infrastructure SMFs

⁶ THE ECONOMIC IMPACT OF THE ALP'S POWERING AUSTRALIA PLAN, Reputex 2021
https://keystone-alp.s3-ap-southeast-2.amazonaws.com/prod/61a966013f3c53001f975016-REPTEXT_The%20economic%20impact%20of%20the%20ALP's%20Powering%20Australia%20Plan_Summary%20Report.pdf#page=6

which facilitate these emissions reductions should not be penalised for increases in emissions which enable greater emissions reductions for their customers or the NEM.

Question 3: Views are sought on the proposal to reset baselines in a way that removes aggregate headroom so crediting and trading can commence when baselines start to decline. Options for setting baselines are considered in the next section.

The proposal to reset baselines in a way that removes aggregate headroom is identified within this consultation as a prerequisite for the introduction of crediting and trading under the Safeguard Mechanism. As APGA is in favour of crediting and trading it is also in favour of the requirements to enable crediting and trading including resetting baselines. However, if it were possible for crediting and trading under the Safeguard Mechanism to occur without resetting baselines, this would be preferred.

This is because resetting baselines in a way that removes aggregate headroom risks the unintended consequence that early adopters of emissions reduction activities will be worse off. This has the potential to manifest in two ways:

- 1. Punishment of early actors**

Facilities which have invested in emissions reduction across the past years risk having their baselines reset based on their emissions following these investments. Emissions reduction activities are likely to have been the least cost abatement opportunities for these Facilities, making further emissions reduction higher cost. Perversely, those who have done the right thing by reducing emissions early will be financially penalised through the need to undertake relatively higher cost facility augmentations or pay for more SMC's compared to those who have not reduced their emissions until after the Safeguard Mechanism Reforms have come into effect. This is addressed in greater detail in Section **Error! Reference source not found.**

- 2. Avoidance of near-term abatement activities**

Facilities which were on track to reach FID for emissions reduction activities or purchase ACCUs between now and when the Safeguard Mechanism Reforms come into effect will be disincentivised to act until after the Safeguard Mechanism Reforms come into effect. This will result in less emission abatement in the near term, and a lower demand for ACCUs in the near term, further disadvantaging early emissions reduction movers.

Both of these unintended consequences could be avoided by pursuing crediting and trading without resetting baselines in a way that removes aggregate headroom. Otherwise, SMF's which have acted to reduce their emissions since the introduction of the Safeguard Mechanism should have these activities considered when calculating their baseline. The new baseline of such an SMF should allow the SMF to generate credits based on the emissions reduction action taken by setting the baseline as if they had not taken this action.

A practical example of such a circumstance would be an SMF which has gone to the significant expense of replacing a coal or diesel boiler with a natural gas boiler prior to their baseline being reset. This would amount to both significant cost and significant reduction in emissions which the facility has undertaken without expectation of reduced baseline. Further, only less cost-effective emissions reduction solutions would be left for the SMF to consider in order to achieve further emissions reduction. Such an outcome does not seem compatible with the Equitable principle of the Safeguard Mechanism Reforms.

APGA notes that the other reason provided for resetting baselines, in particular the artificially steep rate of emissions reduction requirement, is not necessarily a concern. This is because the two trends in Figure 3.1 do not intersect until 2030. This means that no Facility will be required to reduce emissions by a higher rate under the *headroom removed* trend line than if the *headroom remains* line were to be pursued.

Question 4: What is the preferred approach for setting baselines for existing facilities? Approaches may include:

Option 1, which would see all baselines set using industry-average benchmark values.

Option 2, which would see all baselines set using facility-specific emissions-intensity values.

Other proposals, noting there are many possible approaches.

APGA recognises that the paper preferences Option 2, hence will provide feedback on the basis that **Option 2 is the preferred option**.

APGA opposes the use of industry-average benchmark values as proposed in Option 1

APGA notes that Section 3.3 is written in a way that considers emissions reduction from a widget production perspective. While this may be relevant for many types of Facilities covered by the Safeguard Mechanism, it is not a relevant perspective to approach Facilities which provide a non-uniform product as is the case for gas infrastructure.

An industry average emissions benchmark considering all forms of gas infrastructure would not account for the fact that the service of pipeline transport occurs across a wide variety of distances, requiring a wide variety of energy input, and resulting in a wide variety of emissions output.

The analogue of truck haulage can be used to better understand these circumstances. A trucking company with a contract to haul 1 tonne of material 100km each day will have a significantly different emissions profile compared to a trucking company with a contract to haul 1 tonne of material 1000km each day. If these two companies were considered facilities within an industry, the industry average emissions would be the emissions required to haul 1 tonne of material 500km.

If this analogue were subject to Option 1 proposed within this question, the first trucking company would be able to produce a significant volume of SMCs by doing nothing, potentially even while increasing their emissions. The first company can then sell these

SMCs to the second company for a profit until the second company can reduce their emissions by at least half. This result would be in opposition to the principles of the Safeguard Mechanism Reforms.

Similarly, different gas infrastructure, while providing gas haulage services, are moving each gigajoule of gas different distances across differing terrain at different pressures via different diameter pipework. The application of Option 1 to pipeline infrastructure will artificially create winners and losers, in opposition to the principles of the Safeguard Mechanism Reforms.

Question 5: What are the advantages of best practice, industry average benchmarks, or alternative approaches for baselines for new entrants, noting that a final decision will be informed by baseline setting arrangements for existing facilities?

APGA proposes that baseline setting should be the same regardless of whether a facility is an existing facility or new facility. Creating an alternate approach for existing and new SMFs risks either impeding investment in new facilities or creating an imbalance in ability of existing and new facilities to generate SMCs. Either of these outcomes is in opposition to the principle of an Equitable and Effective Safeguard Mechanism.

Impact of large new EITE entrant on existing entrants

How new large EITE's enter the SMF needs to be carefully considered. If EITE's are supported through either the Direct provision of SMCs or Differentiated baseline decline rates approaches, it is possible that a new large EITE SMF would increase the Safeguard Mechanism total emissions and be required to reduce a smaller than average proportion of the emissions added to the total. This would result in all other SMFs having to increase their rate of emissions reduction due to the addition of the new EITE.

This would be trivial if EITE's were to be supported by the provision of Low Emissions Technology Funding alone. In this circumstance, all SMFs would experience the same emissions reduction rates. The new EITE emissions could simply be added (potentially scaled) to the Safeguard Mechanism total and an appropriate baseline decline rate be provided to deliver an outcome that does not change other baseline decline rates.

APGA insist that the Safeguard Mechanism must be designed such that new large EITEs do not increase the emissions reduction burden of other SMFs.

Question 6: Are there any other issues to consider with the proposal to allow the Clean Energy Regulator to automatically issue tradable credits to Safeguard facilities whose emissions are below their baseline, with crediting and trading commencing on 1 July 2023 subject to baseline setting arrangements that remove aggregate headroom?

As the Safeguard Mechanism relies upon NGERs emissions reporting, APGA highlights the need for the Safeguard Mechanism to consider how changes in an SMFs proposed NGERs reporting methodology may interact with the Safeguard Mechanism and its features.

A change in NGERs reporting methodology has the potential to result in a substantial change in reported emissions without an actual change in facility emissions. If there is no consideration for these changes under the Safeguard Mechanism, it would be possible for a SMF to change NGERs reporting methodology, experience a substantial reduction in reported emissions, and generate a substantial volume of SMCs as a result which it could monetise. This would be an unintended consequence of the Safeguard Mechanism Reforms.

APGA proposes that a change in NGERs reporting methodology for an SMF should trigger a Safeguard Mechanism baseline reset. Similar baseline reset approaches to either the initial reset or new facility baseline setting guidelines should be used for consistency. This appears to be the most equitable way to address possible substantial changes in reported emissions through changes in NGERs reporting methodology.

Question 7: Should banking and borrowing arrangements be implemented for Safeguard Mechanism Credits?

APGA agrees with allowing for banking and borrowing arrangements for SMCs. This will be necessary to minimise price volatility and other differences between ACCUs and SMCs. Further, this will be critical for addressing the time it will take to develop the business case for investment in non-credit related emissions reduction action and ultimately deliver emissions reduction projects.

Emissions reduction projects for Australia's largest emitters will not be able to be developed overnight. The design, development and business case progression to take action will take years to unfold in many cases. As such, there is a high likelihood that the majority of early Safeguard Mechanism emissions reduction will be achieved via ACCU or SMC acquisition. Due to the reduction in headroom however, SMC production will be constrained in early years. If banking and borrowing is not allowed, there is risk that SMC value becomes very high, also driving up ACCU value. This would create volatility in the ACCU market making investment decisions based on ACCUs more difficult to secure, potentially undermining the usefulness of the market.

Question 8: Should Safeguard facilities no longer be able to generate ACCUs for reducing direct (scope 1) emissions unless they have an existing registered ERF project? Further, should no new ERF projects be able to be registered at Safeguard facilities? Additional feedback is sought on:

- allowing existing ERF projects at Safeguard facilities to continue to generate credits and retaining double counting provisions to prevent a facility from generating ACCUs and SMCs;
- options for the treatment of deemed surrender;
- continuing to allow Safeguard facilities to participate in ERF projects that reduce emissions from electricity use (scope 2) emissions; and
- mechanisms to promote the transparency of the ACCU market, such as publishing unit holdings, to assist with market decision making, supply and cost effectiveness.

Hybrid approach to SMC – ACCU creation

APGA proposes a hybrid alternative to the options considered under Question 8. As both the ACCU and SMC markets grow, there is the possibility that these markets may decouple. This can cause two outcomes:

- If SMCs become artificially higher value compared to ACCUs, then abatement through SMCs will cost greater than the least cost abatement option; and
- If ACCUs become artificially higher value compared to SMCs, then SMFs would be missing the opportunity to gain greater financial incentive to reduce emissions.

To avoid this outcome, APGA proposes that SMFs which are able to produce both ACCUs and SMCs be able to choose how many of which credit type they choose. This will allow for greater coupling of the two credit markets and avoid unintended consequences of market decoupling.

Avoiding double counting in scope 2 emissions reduction

As proposed in Section 2.1, it is possible for SMFs to reduce their scope 1 emissions by converting them to equal or more scope 2 emissions, including if natural gas use is converted to grid electricity use in most states and territories. As SMCs will be allowed to be created through such a process, allowing ACCU creation for emissions reduction of these scope 2 emissions would result in double counting of emissions reduction. This is a further unintended consequence of the Safeguard Mechanism not accounting for an SMFs ability to transition scope 1 emissions to equal or higher scope 2 emissions as highlighted in Section 2.1.

Question 9: Should international units be able to be used for compliance under the Safeguard Mechanism at a future time, noting that any decision would depend on the rules for international trading?

APGA is supportive of the use of international units in the same way as which ACCUs are proposed to be used. Structure around the introduction of international units into the Australian context is a matter for a separate consultation.

Question 10: Should a facility-specific comparative impact assessment that builds on existing EITEs definitions be used rather than a sector wide designation?

Current EITE definitions do not to consider the full supply chain involved in an EITE activity. APGA proposes that SMF's which supply critical components or energy to an EITE be considered for EITE status as well. Not doing so may undermine the primary EITE by increasing the cost of supplying the necessary materials and energy required to produce its trade exposed product.

Question 11: Would additional funding opportunities effectively assist EITE facilities to adapt to declining Safeguard baselines? What kinds of funding, finance or other arrangements and measures would best support EITE Safeguard facilities to reduce their emissions? In particular, what potential design features of the Powering the Regions Fund would support covered facilities with their decarbonisation priorities?

APGA is supportive of EITE's being able to access the various funds proposed within this consultation as well as any future funds provided to support EITE emissions reduction activities. This is primarily on the basis that APGA is opposed to EITE's being subject to a lower level of emissions reduction than businesses serving the Australian public. As discussed in Section **Error! Reference source not found.**, APGA flags that making EITE's subject to lower emissions reduction obligations will inequitably level the responsibility for emissions reduction which should be borne by international customers onto the Australian public.

Additionally, APGA proposes that SMF's who abandon plant or equipment assets before the end of their design lives in order to comply with the Safeguard mechanism should be able to depreciate the remaining value of the abandoned asset across a single tax year. This will

ensure that SMF's will not be financially disadvantaged by changes in the regulatory environment under which they made their investment in.

Question 12: Is the direct provision of SMCs an appropriate way to mitigate cost impacts for EITE facilities?

APGA does not consider the direct provision of SMCs an appropriate way to mitigate cost impacts for EITE facilities. This approach is equivalent to making EITE's subject to lower emissions reduction obligations, in turn making non-EITE SMF's responsible for a larger proportion of the burden of the Safeguard Mechanism. As discussed in Section **Error! Reference source not found.**, doing so inequitably levels the responsibility for emissions reduction which should be borne by international customers onto the Australian public

Question 13: Are differential decline rates an appropriate way to reduce the impact on EITE facilities? How could differential decline rates be structured so that emissions reduction and fairness outcomes are maintained?

APGA does not consider differential decline rates an appropriate way to reduce the impact on EITE SMF's. As discussed in Section **Error! Reference source not found.**, APGA flags that making EITE's subject to lower emissions reduction obligations will inequitably level the responsibility for emissions reduction which should be borne by international customers onto the Australian public. It is not possible to structure differential decline rates in a way that maintains emissions reduction and fairness outcomes at the same time.

It would be possible however to maintain either the emissions reduction outcome or the fairness outcome at the expense of the other by either unfairly burdening the Australian public with the emissions reduction obligations of EITE SMF's or reducing total emissions reduction to a level acceptable to EITE SMF's.

Question 14: Should multi-year monitoring periods be extended to allow facilities with limited near-term abatement opportunities to manage their own abatement path?

This is one possible approach to allowing facilities with limited near-term abatement opportunities to manage their own abatement path. However, an overarching non-linear reduction pathway would more appropriately represent a realistic the emissions reduction trajectory for all SMFs as demonstrated by the majority of emissions reduction and new technology progression experienced to date. APGA refers to the concept of the diffusion of innovation curve which has been followed by the renewable electricity sector, electric vehicle sector, and the majority of innovations dispersed globally.

Question 15: What are the appropriate characteristics for the decline trajectory to 2030 that can deliver the Safeguard Mechanism's share of Australia's climate targets, and the process for setting baselines post-2030?

The majority of emissions reduction under the Safeguard Mechanism is expected to come from avenues other than renewable electricity uptake. As such, the majority of changes will be innovative, hence will approximate the diffusion of innovation s-curve (Figure 1). This was demonstrated in the Australian and global uptake of renewable electricity technologies (Figure 2) and is being replicated by the uptake of electric vehicles nationally and globally (Figure 3).

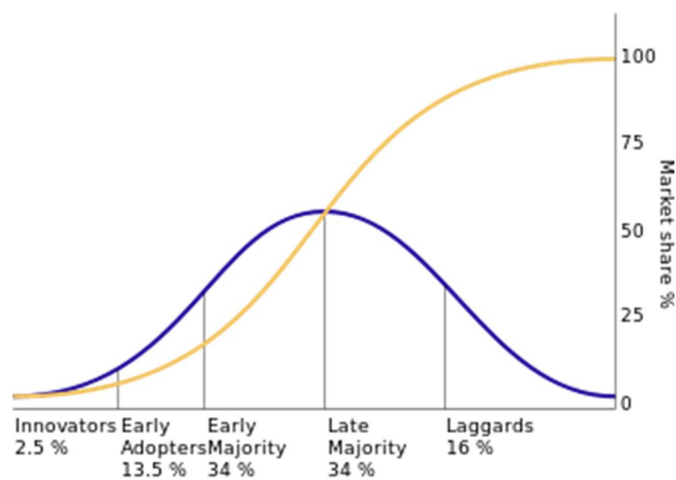


Figure 1: Diffusion of Innovation Curve⁷

APGA proposes that the Safeguard Mechanism emissions reduction trajectory to 2030 occurs along a diffusion of innovation curve, starting slow and increasing over time. Taking this approach would avoid a number of risks flagged within the Consultation paper, while delivering the intended outcome with reduced (but not zero) reliance upon SMC banking and borrowing.

⁷ Rogers, Everett (16 August 2003). Diffusion of Innovations, 5th Edition. Simon and Schuster. ISBN 978-0-7432-5823-4.

Renewable Electricity Generation (Australian Energy Statistics)

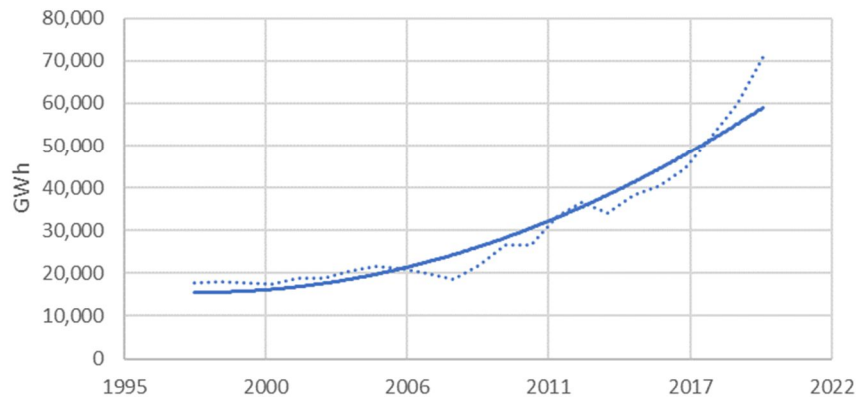


Figure 2: Renewable Electricity Growth in Australia⁸

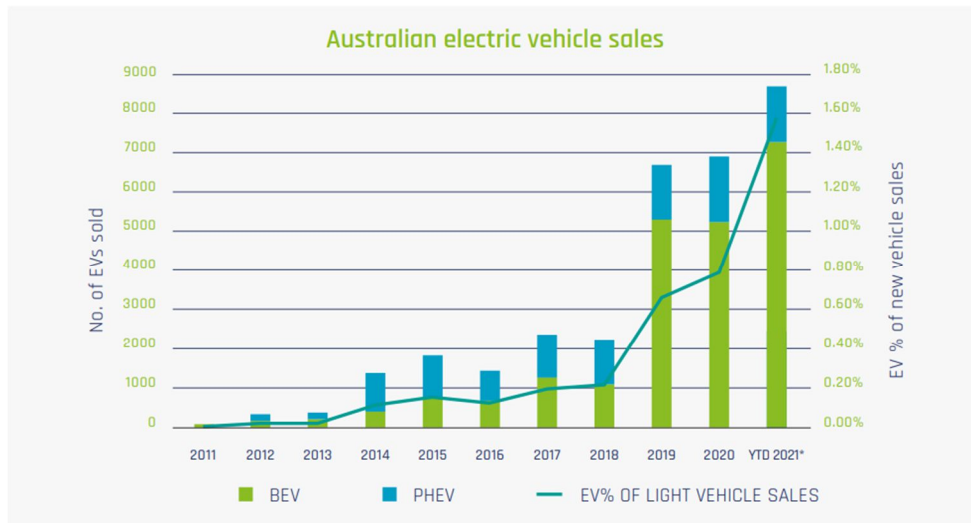


Figure 3: Australian electric vehicle sales over time⁹

Question 18: Are existing Government-defined production variables suitable for the Safeguard Mechanism to drive least cost emissions reductions?

APGA considers that the production variables which apply to the gas pipeline industry are suitable for the Safeguard Mechanism to drive least cost emissions reductions within the Safeguard Mechanism. However, APGA queries whether the structure of the Safeguard

⁸ Australian Energy Statistics 2022 Table O, Australian Federal Department of Climate Change, Energy, the Environment and Water 2022

<https://www.energy.gov.au/sites/default/files/Australian%20Energy%20Statistics%202022%20Table%20O.xlsx>

⁹ STATE OF ELECTRIC VEHICLES, Electric Vehicle Council 2021

https://electricvehiclecouncil.com.au/wp-content/uploads/2021/08/EVC_annual_report_-V3-Aug-13th-1.pdf

Mechanism and other supporting legislative features (NGERS, ERF) are suitable to enable the Safeguard Mechanism to drive least cost emissions reductions.

As discussed in Section 3, the inability to recognise renewable gas utilisation under NGERS alongside the cumbersome functionality of the ERF in producing ACCUs both impede the Safeguard Mechanism from enabling the least cost emissions reduction opportunities across the economy. Challenges with these adjacent legislative frameworks risk impeding the Safeguard Mechanism from achieving its goals and maintaining its principles.

Question 20: How should landfills be treated, including:

- should landfill baselines decline at the same rate as other facilities;
- should landfills be able to generate SMCs in phase 1; and
- should long-term arrangements for landfills be considered prior to phase 2?

APGA proposes that the approach relative to landfills consider acting in the best interest of facilitating renewable gas production from landfill, and in doing so refers DCCEEW to the submission of Bioenergy Australia to this consultation process.