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2026 National Greenhouse and Energy Reporting (NGER) Scheme Updates

The LPG industry safely and securely supplies 43PJpa of energy to industrial, commercial and residential consumers nation-wide, including around 30% of all regional Australian households[1]. Gas Energy Australia (GEA) represents Australia's liquid gas supply chains including Liquefied Petroleum Gas (LPG) and associated gases with members spanning from producers to retailers and everything in between.

GEA welcomes the opportunity to provide a submission to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) consultation on the 2026 National Greenhouse and Energy Reporting (NGER) Scheme Updates (the Consultation).

Australia's liquid gas industries support Australia's net zero transition. LPG produces 14% less Scope 1 emissions than diesel today and is stored at costs 1000x cheaper than home batteries. As drop-in renewable liquid gases such as BioLPG emerge, consumers can continue to use LPG while producing 99% less greenhouse gas[2], making LPG the perfect partner for renewable electricity in the cities and the bush.

BioLPG Definition & Combustion Factor

GEA welcomes the proposed introduction of a BioLPG Definition and Combustion Factors. Proposals are pragmatic and fit-for-purpose, enabling an Australian BioLPG market without unnecessary complexity. The definition appropriately avoids restricting BioLPG to specific production processes, and treating emitted CO_2 as zero aligns BioLPG with other biofuels. We look forward to seeing smooth introduction of these updates.

Co-processed LPG design

The proposed Amendments for Co-processed LPG exclusively reference Product Guarantee of Origin (PGO) Certificates as eligible certificates. However, PGO design (Annex. 1) introduces regulatory burden disproportionate to the domestic scope 1 emissions purpose of the NGER Scheme. PGO design also stretches well beyond the

[1] DCCEEW, 2024, Australian Energy Update 2024, https://www.energy.gov.au/publications/australian-energy-update-2024
Australian Bureau of Statistics, 2014, Environmental Issues: Energy Use and Conservation, https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4602.0.55.001Main+Features1Mar%202014
[2] Frontier Economics, 2023, *Pathways to Zero Emissions for LPG*, https://www.gasenergyaus.au/get/2016/pathway-zero-emissions-for-lpg-frontier.pdf

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needs of the Australian LPG sector, prospective Co-produced LPG producers, and their customers. This risks impeding development of a domestic Co-produced LPG market, noting Co-processed LPG PGOs are likely years away while producers ready this year.

As expanded upon in the following pages, DCCEEW has the opportunity to enable domestic Co-produced LPG market development by introducing additional eligible certificates alongside PGOs. Importantly, this can be done while achieving the number 1 priority of NGER legislation – accurate national scope 1 emission reporting.

The ISCC Plus certificate scheme is ready today and able to support accurate national emissions accounting. GreenPower Low-carbon Liquid Fuel (LCLF) Certification is under development on a more rapid timeline than Co-produced LPG PGOs. Both could be introduced as additional eligible certificates, with the option of three-yearly fit-for-purpose reviews to mitigate misalignment of intent over time. Doing so would support more rapid domestic Co-produced LPG market development than relying on PGO alone.

Beyond Co-produced LPG, the above approach may also better enable domestic consumption of domestically Co-produced liquid fuels across all fuel markets. Making it easier for domestic production to be accounted for when consumed domestically would put Australian energy supply and emissions reduction first ahead of export profits.

Recommendations

GEA provides the following high-level recommendations alongside responses to consultation questions following this letter:

1. Introduce the proposed BioLPG Definition and Combustion Factors without change.
2. Expand eligible certificates for Co-produced LPG (or all Co-produced Liquid Fuels) to include ISCC Plus and GreenPower LCLF Certificates alongside PGO Certificates, including a three-year fit-for-purpose review for ISCC Plus.

We recognise the DCCEEW Quarterly and Industrial Emissions Team for their best-in-class engagement with industry throughout consecutive NGER Amendment processes and invite continued engagement on these and future amendments.

To discuss any of the above feedback further, please contact me on +61 422 057 856 or via jmccollum@gasenergyaus.au.

Yours sincerely,

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The Role of LPG in Australia's Energy Landscape

Liquefied Petroleum Gas (LPG) plays a vital role in Australia's energy security and net zero transition. As a versatile energy source with drop-in renewable alternatives, LPG provides essential energy services to millions of Australians, particularly in regional and remote areas where it serves approximately 30% of households[3]. The LPG industry safely and securely supplies 43 petajoules of energy annually across industrial, commercial, and residential applications nationwide[4]. A further 120 petajoules of LPG is exported annually, with the LPG sector as a whole contributing over $5bn of GDP and 20,500 FTE to the Australian economy[5].

LPG stands out as a cleaner alternative to many traditional fossil fuels, producing 14% fewer greenhouse gas emissions than diesel[6]. The industry is actively embracing Australia's transition to net zero through the pursuit of renewable forms of LPG[7]. These include bioLPG (a co-product of Sustainable Aviation Fuel) and renewable LPG (rLPG) produced from hydrogen. These alternatives reduce scope 1 emissions by 99% while utilizing existing infrastructure and appliances.

One of LPG's most significant advantages is its superior energy storage capability in cheap, transportable LPG tanks. This is key in regional areas where mains power may be unreliable or unavailable. A standard residential LPG tank installation provides energy storage equivalent to more than 42 Tesla Powerwall 3 home battery systems at around 1000x lower cost[8]. This storage capacity, combined with the portability of LPG tanks, makes it an invaluable resource for energy security and emergency resilience.

The LPG industry is uniquely positioned to support Australia's energy transition without requiring government funding or subsidies. As the nation moves toward net zero emissions, renewable forms of LPG complement renewable electricity, offering a practical decarbonisation pathway for applications where electrification may not be feasible or cost-effective. By recognizing and supporting the development of renewable forms of LPG, Australia can ensure a diverse and resilient energy mix that retains energy security while achieving its climate goals.

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[3] Australian Bureau of Statistics, 2014, *Environmental Issues: Energy Use and Conservation*, https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4602.0.55.001Main+Features1Mar%202014

[4] Australian Federal Department of Climate Change, Energy, the Environment and Water, 2024, *Australian Energy Update 2024*, https://www.energy.gov.au/publications/australian-energy-update-2024

[5] ACIL Allen, 2022, *Economic contribution of the Australian gas economy in 2020-21*, https://www.gasenergyaus.au/get/2123/economic-contribution-of-australian-gas-economy.pdf

[6] Australian Federal Government, *2024, National Greenhouse and Energy Reporting (Measurement) Determination 2008*, https://www.legislation.gov.au/F2008L02309/latest/text

[7] Frontier Economics, 2023, *Pathways to Zero Emissions for LPG*, https://www.gasenergyaus.au/get/2016/pathway-zero-emissions-for-lpg-frontier.pdf

[8] Elgas, 2025, *LPG Gas Bottle Sizes*, https://www.elgas.com.au/elgas-knowledge-hub/residential-lpg/lpg-gas-bottle-sizes-gas-bottle-dimension-measurements/

Detailed Feedback: Co-processed LPG

NGER legislation, the LPG Sector, and LPG customers are aligned on the intent of introducing Co-processed LPG via the 2026 NGER Amendments – to enable accurate national emissions accounting when an LPG customer consumes Co-processed LPG, in turn enabling a domestic Co-processed LPG market in Australia.

The proposed design – specifically its exclusive reliance on PGO Certificates – introduces regulatory burden disproportionate to the domestic scope 1 emissions purpose of the NGER Scheme. The pages which follow explore the inefficiency of this design and propose a more regulatorily efficient alternative that would better serve the objectives of both the NGER Scheme and the Government's Low-carbon Liquid Fuels ambitions.

GEA recommends avoiding regulatory inefficiency by introducing additional eligible certificates under Part 2.8 Clause 2.73. Specifically, the ISCC Plus and GreenPower LCLF Certificates are recommended to be introduced noting both would enable accurate national emissions accounting. A three-yearly fit-for-purpose review is recommended to address certification uncertainty in ISCC Plus.

LPG Industry, Customer interest in Co-processed LPG

The Australian LPG sector, including Australia's two remaining oil refineries, are interested in developing a domestic market for Co-processed LPG focused on reducing customer scope 1 emissions. GEA is advised that there is no interest in developing export or import markets for Co-processed LPG in the medium term (5 – 10 years).

LPG sector engagement with customers indicates that LPG scope 1 emissions are material for many NGER Reporting Entities and Safeguard Mechanism Facilities. However, most customers indicate that LPGs contribution to Scope 3 emissions in exportable products is too small to warrant focus when assessing embedded emissions in the medium term.

From both an LPG industry perspective, and the perspective the industry is hearing from its customers, the primary interest in the medium term is the scope 1 emissions reduction benefit of Co-processed LPG and other renewable liquid gases.

NGER purpose & implications for Co-processed LPG design

The purpose of the NGER Scheme is to legislate a single national reporting framework for the reporting and dissemination of information related to scope 1 greenhouse gas emissions. This purpose is aligned with LPG industry interests in developing a Co-processed LPG market, as well as the interests of the potential producers and consumers of Co-processed LPG – reduction of LPG customer Scope 1 emissions.

This indicates that a regulatorily efficiently design for introducing Co-processed LPG into the NGER Scheme would require accurate assessment of scope 1 emissions that occurs within Australia. Such a design would achieve the legislative intent of the NGER Scheme as well as the intent of industry, producers, and customers.

Conversely, a design that introduced additional regulatory burden beyond that necessary for a national framework for the reporting and dissemination of information related to scope 1 greenhouse gas emissions would be regulatorily inefficient. Inefficient regulation is regarded as impeding innovation and suppressing industry development – the opposite of Australian Government intent regarding LCLFs.

Proposed design impedes domestic market development

The proposed approach to introducing Co-processed LPG into the NGER Scheme becomes inefficient by only referencing PGO Certificates as *eligible co-processed liquid fuel certificates*. This is due to the PGO design proposed in Annex. 1 of the consultation. This details a PGO design which introduces far greater burden than necessary to determining Australia's national scope 1 emissions, risking regulatory inefficiency.

Mismatched Regulatory Burden

Proposed PGO design applies the *biogenic fraction* across all combustible products from a batch of Co-produced liquid fuel. This would be appropriate for developing a market for Co-processed Liquid Fuels where scope 3 emissions were of interest to customers. Examples include import or export markets, or markets solely targeting manufacturers interested in scope 3 emissions of exported products.

However, this is not the intent of either the NGER Scheme, the LPG industry, potential producers of Co-processed LPG, nor their customers – all are only interested in scope 1 emissions of domestically produced Co-processed LPG when consumed in Australia. For this purpose, the free allocation of biogenic content across chemically distinct combusted products would achieve the intent of NGERs, LPG industry and customers.

Imposing the regulatory rigor needed to trace scope 3 emissions internationally risks suppressing a domestic co-processed LPG market where NGER is only intended to consider national scope 1 emissions. This in turn risks suppression of least cost emissions reduction in Australia – the opposite of Government intent regarding LCLFs.

Timeframe for Development

Additionally, the rate of development of Hydrogen PGO's and commentary questioning whether a Co-processed LPG PGO would even be prioritised indicates a Co-processed LPG PGO is at least several years away.

This is an understandable development timeframe for such a regulatorily intensive certificate scheme. However, Co-processed LPG producers are targeting first production within months, and customers aren't interested in Co-processed LPG to reduce scope 3 emissions. The time required to develop a Co-processed LPG PGO further risks Australia's LCLF transition.

Proposed regulatorily efficient design

Aside from only referencing PGOs, the amendments proposed to the NGER Regulations and Measurement Determination could enable efficient market development by introducing additional eligible certificate schemes alongside PGOs. PGOs should be retained as one option due to its Scope 3 emission tracking benefits – some customers may want this in future. However, as discussed, the current market development priority is domestic scope 1 emissions.

Precedent

Precedent for NGER recognition of multiple certificate schemes can be seen in NGER Measurement Determination Chapter 2 Part 2.6, Clause 2.67C regarding renewable gas. Clause 2.67C (4) references both PGO's and Renewable Gas Guarantee of Origin (RGGO) certificates issued under the GreenPower Renewable Gas Certification scheme as eligible Renewable Gas Certificates. A similar approach could be repeated for additional certificates enabling accurate national scope 1 emissions reporting under proposed amendments to Part 2.8 Clause 2.73.

Considerations for a 'Theoretical Additional Certificate' design

As priority number one, any theoretical additional certificate design would need to demonstrably enable the intent of the NGER Scheme – accurate national scope 1 emission reporting. This could be done with or without the regulatory Buden required to enable international scope 3 emissions tracking seen in the proposed PGO design.

A theoretical additional certificate could also be either available and in used today or aimed to be available within a shorter period than past PGO development experience. Certificates could even be enabled with a mandatory review window to account for any unrecognised and unintended consequences of using an additional certificate.

These aspects are not the only aspects of a Theoretical Additional Certificate design. However, they are the most poignant with relation to the Co-produced LPG market development risks introduced by proposed PGO design.

Certificates aligned with 'Theoretical Additional Certificate' design

Two Certificates fit the above description – the GreenPower LCLF Certificate Scheme[9] and the ISCC Plus Certificate Scheme[10]. Both Certificate approaches would produce sufficiently accurate emissions accounting data to achieve the scope 1 intent of the NGER scheme. Noting GreenPower LCLF Certificates are still under development, the intended design and RGGO performance is referenced here.

[9] August 2025, GreenPower, LCLF and Biogenic CO2 Certification announcement, Available at: https://www.greenpower.gov.au/news-and-events/news/lclf-and-biogenic-co2-certification-announcement

[10] May 2026, International Sustainability & Carbon Certification, *ISCC Plus*, Available at: https://iscc-system.org/certification/certification-schemes/iscc-plus/

Immediate market enabler – ISCC Plus

ISCC Plus Certification is available today. It represents the most rapid pathway to enabling a Co-processed LPG market in Australia while achieving priority number one – demonstrably enable sufficiently accurate national scope 1 emission reporting.

ISCC Plus is recommended as a priority inclusion alongside PGOs to enable the ambitions of Co-produced LPG producers targeting first production in 2026.

While extremely valuable to market development in the short to medium term, referencing a certification scheme outside of Australian control risks the scheme departing Australian intent in the long term (5+ years). Therefore, a regular fit-for-purpose review every 3 years is proposed when introducing this additional certificate.

Long-term domestic decarbonisation enabler – GreenPower

GreenPower's LCLF Certificate Scheme is Australia's solution to a stable, Australia-focused certificate scheme targeted at domestic consumption across the medium to long term. GreenPower has a long track record of delivering quality certificate schemes which achieve Australian domestic decarbonisation intent.

There is precedent for referencing GreenPower certificates in NGER Regulation and Measurement Determination. Through co-development of the scheme including DCCEEW NGER Team representatives, it can be assured that the GreenPower LCLF Certificates are developed to achieve priority number one – demonstrably enabling accurate national scope 1 emission reporting.

Analogy – Renewable Gas through Gas Infrastructure

The case for recognising additional eligible certificate schemes alongside PGOs for co-processed liquid fuels is analogous to the basis for the Renewable Gas (RG) Market-based Method (MbM) implemented in the 2025 NGER Amendments.

RG passing through gas infrastructure is analogous to biological feedstock passing through a refinery. The infrastructure and refinery are both closed systems with measurable inefficiencies. A portion of the carbon neutral content that enters either system is lost, and the remainder reduces the total scope 1 emissions of fuel customers receive on the other side of the system.

Prior to the MbM, RG entering gas infrastructure would be distributed among all customers. This impeded RG market development as a single customer couldn't access the emissions reduction benefit of a single parcel of RG introduced into the infrastructure. However, whether the emissions reduction benefit of RG was spread among all customers or attributed to a single parcel which was then attributable to a single customer, the national scope 1 emissions accounting outcome was just as robust.

The proposed PGO design would similarly spread the emissions reduction impact of biological feedstock entering a refinery between all products and hence all customers. This risks impeding LCLF market development as a single customer couldn't access the

emissions reduction benefit of a single parcel of biological feedstock introduced into the refinery. However, whether emissions are attributed as per proposed PGO, ISCC Plus, or propose GreenPower LCLF Certificate, the national scope 1 emissions accounting outcome would be just as robust.

The distributed emissions accounting approach to RG in gas infrastructure existed prior to RG MbM introduction. The flexibility introduced by the RG MbM demonstrably stimulated the RG market, with new production capacity scheduled to be delivered within a year of the Amendment taking effect and several more facilities scheduled for the years to come. All with equally robust national scope 1 emissions accounting.

The distributed approach to co-production of liquid fuels, as indicated via PGO design, mirrors the pre-MbM approach to RG emissions accounting. Proceeding with only this approach risks impeding co-produced liquid fuel market development in the same way the RG market was impeded prior to MbM introduction.

Allowing additional certificates with more flexible frameworks that still lead to robust national scope 1 emissions accounting approaches would mitigate this risk.

General integration across all Co-processed Liquid Fuels

While the above approach is proposed through an LPG lens, it could apply across all Co-processed Liquid Fuels. Keeping PGO as one certificate option while adding certificates which more easily enable domestic uptake of domestically produced Co-processed Liquid Fuels has a range of benefits – from prioritising Australian production for Australians, to simplifying amendment drafting and creating a level playing field.

Conclusion and Recommendation

The LPG industry recommends NGER Scheme amendments recognise additional eligible certificate schemes alongside PGOs – specifically ISCC Plus and the GreenPower LCLF Certificate Scheme – consistent with the precedent established in Clause 2.67C of the NGER Measurement Determination for RG.

ISCC Plus should be recognised immediately, providing a pathway to market for producers targeting first production in 2026. A three-year fit-for-purpose review is recommended given the scheme sits outside Australian regulatory control.

The GreenPower LCLF Certificate Scheme should be introduced concurrently as the preferred long-term domestic solution given its Australian focus and established NGER precedent. The incomplete development of GreenPower LCLF Certificate design should not impede its inclusion noting Co-produced LPG PGO design is also incomplete.

PGOs should be retained as one option where full scope 3 tracking is required to support customers which value the additional rigor of proposed PGO design. This tiered approach delivers regulatory efficiency, supports domestic production, and accelerates Australia's Low-carbon Liquid Fuels transition without compromising national scope 1 emissions reporting integrity nor preventing PGO use for those who value its design.

Consultation Question Responses

Question 9

Are the four methods described above for determining the biogenic carbon content of co-processed fuels suitable in the Australian context?

GEA supports the inclusion of all four methods - 14C analysis, yield/step change models, mass balance, and energy content estimation - as suitable in the Australian context so long as all are included. The availability of multiple methods reflects the diversity of refinery operations and feedstocks across Australian producers.

GEA also recommends that DCCEEW recognise additional certificates alongside PGOs, especially where other certificates are fit for the purposes outlined in NGER, consistent with Clause 2.67C of the NGER Measurement Determination for renewable gas.

ISCC Plus as an eligible certificate scheme alongside PGOs noting that ISCC Plus already accommodates these methods and is available today. This would provide an immediate pathway to market for Co-processed LPG producers targeting first production in 2026. A three-year fit-for-purpose review could be used to mitigate risk of misalignment over time.

GreenPower LCLF Certification, under active development by NSW DCCEEW with Federal DCCEEW involvement, is similarly being designed to accommodate appropriate methods and rigor as a long-term domestic certificate solution.

Question 10

What is the likely level of accuracy of each of these methods? Are there any limitations or practical impediments to using them?

GEA has no comment on the relative accuracy of individual biogenic carbon determination methods. GEA notes, however, that any method producing sufficiently accurate data to support national scope 1 emissions reporting should be considered eligible – consistent with the primary intent of the NGER Scheme.

GEA recommends that DCCEEW recognise ISCC Plus and GreenPower LCLF Certificates as eligible certificate schemes alongside PGOs. Both already operate under established accuracy requirements and are fit for this purpose, with ISCC Plus available today and GreenPower LCLF under active development.

Question 11

Are there other methods that the department should consider allowing?

GEA has no comment on additional biogenic carbon determination methods beyond those described and those included in ISCC Plus and GreenPower LCLF Certification.

Question 12

Do you support the department's proposal to not allow free allocation of biomass attributes across chemically distinct products?

GEA does not support restricting free allocation of biomass attributes across chemically distinct products as it applies to the domestic Co-processed LPG market.

The Australian LPG industry, prospective producers, and their customers are exclusively focused on domestic scope 1 emissions reduction – not cross-border scope 3 tracking.

For this purpose, free allocation of biogenic content across chemically distinct combusted products would accurately achieve the intent of the NGER Scheme without adding disproportionate regulatory burden.

Restricting free allocation introduces unnecessary complexity that risks suppressing the domestic Co-processed LPG market that Australian producers are ready to supply in 2026 – contrary to Australian Government intent regarding Low-carbon Liquid Fuels.

However, GEA supports PGOs being developed in this manner so long as they are not the single exclusive path to certification for reporting Co-processed LPG under NGER legislation, and additional eligible certificates including ISCC Plus and GreenPower LCLF Certification are eligible alongside PGOs.

Question 13

Are there any practical impediments to this approach?

GEA's position is that restricting free allocation across chemically distinct products is itself a practical impediment to domestic Co-processed LPG market development. Australian LPG producers targeting first production in 2026 will face additional certification complexity that is disproportionate to the scope 1 emissions reporting purpose of the NGER Scheme, and unnecessary given the exclusively domestic focus of the Australian Co-processed LPG market in the medium term (5–10 years).

Question 14

Are the methods described in Table 6, above, suitable for determining the biogenic carbon fraction of individual, chemically distinct product streams?

GEA has no specific comment on the suitability of individual methods for determining biogenic fractions at the product stream level.

GEA notes that, following long term discussions regarding ISCC Plus, ISCC Plus was excluded from Table 6.

Question 15

Do you support the department's proposal to allow a flexible mass balance approach to setting the assigned biogenic carbon content on individual PGO certificates?

GEA supports the flexible mass balance assignment approach as it provides necessary commercial flexibility for producers and consumers of Co-processed LPG across all eligible Co-processed LPG certificates included in the final drafting of Amendments.

This flexibility is key to enabling a Co-processed LPG market where early adopters may not be co-located with production, ensuring increased transport emissions arise as a result of more restrictive certificate assignment – particularly for liquid fuels.

Question 16

Are there any practical impediments to this approach?

GEA has no practical impediments to raise regarding the mass balance assignment approach.