

Submission: Low Emissions Technology Statement 2022

The Low Emissions Technology Statement 2022 should measure progress based on achieved and potential emissions reductions for each priority technology, undertake proper consultation and elevate technologies that do not enable fossil fuels.

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The Australia Institute welcomes the opportunity to inform the development of the Low Emissions Technology Statement (LETS) 2022.

Previous submissions from the Australia Institute to the Technology Investment Roadmap Discussion Paper have outlined concerns with the Roadmap as a credible emissions reduction policy.¹ Underlying data and assumptions have not been disclosed and documents obtained through Freedom of Information revealed that some assumptions underpinning the analysis were simply “departmental expert judgement”, not based on any independent research.² These issues remain and are reflected in the first and second LETS. To avoid a repeat of past mistakes, the Australia Institute recommends full disclosure of all data and assumptions relevant to third LETS.

¹ Swann et al. (2020) *Submission: Technology Investment Roadmap Discussion Paper*, <https://australiainstitute.org.au/wp-content/uploads/2021/01/P937-Australia-Institute-Sub-Tech-Roadmap.pdf>

² Mazengarb (2020) *Federal government energy roadmap based on guesswork and thought bubbles*, <https://reneweconomy.com.au/federal-government-energy-roadmap-based-on-guesswork-and-thought-bubbles-24028/>

Priority technologies

The LETS 2021 and the Long-Term Emissions Reduction Plan prioritise technologies that will perpetuate the use of fossil fuels in Australia, namely ‘clean’ hydrogen and carbon capture and storage (CCS). Emissions from fossil fuel consumption are the largest contributor to climate change and the lifetime emissions coal, oil and gas projects already in production are sufficient to cause global warming of 1.5 degrees.³

Australia’s target of net zero emissions by 2050 is inconsistent with its plans to expand coal and gas production. New fossil fuel projects under development in Australia would result in 1.7 billion tonnes of greenhouse gas emissions each year – the equivalent annual emissions of over 200 coal-fired power stations.⁴

CCS cannot be relied upon to reduce emissions from fossil fuel projects given its poor track record, despite benefiting from billions of dollars in public research and development funding.⁵ Officials in Senate Estimates admitted they expected no abatement from CCS between 2020-2040 despite prioritising CCS as one of five technologies in the first LETS.⁶ Not a single tonne of abatement expected from CCS for twenty years.

This is concerning given that the new Emissions Reduction Fund (ERF) method for CCS is used to justify new fossil fuel projects, despite the questionable integrity of the method development.⁷ The first project approved for carbon credits, Santos’ Moomba CCS project, could include enhanced oil recovery (EOR) where captured CO₂ is used to

³ Daley (2021) *The Fossil Fuelled 5*, <https://australiainstitute.org.au/report/the-fossil-fuelled-5/>

⁴ Ogge, Quicke & Campbell (2021) *Undermining Climate Action*, <https://australiainstitute.org.au/report/undermining-climate-action/>

⁵ Browne (2018) *Sunk costs: Carbon capture and storage will miss every target set for it*, <https://australiainstitute.org.au/report/sunk-costs-carbon-capture-and-storage-will-miss-every-target-set-for-it/>

Browne & Swann (2017) *Money for nothing*, <https://australiainstitute.org.au/report/money-for-nothing/>

⁶ Commonwealth of Australia (2020) *Official Committee Hansard: Senate Environment and Communications Legislation Committee Estimates, Tuesday, 20 October 2020*, https://parlinfo.aph.gov.au/parlInfo/download/committees/estimate/f5a251e5-48d3-4283-b5a2-530558521771/toc_pdf/Environment%20and%20Communications%20Legislation%20Committee_2020_10_20_8212_Official.pdf;fileType=application%2Fpdf, p. 66.

⁷ Ogge (2021) *Regulatory carbon capture*, <https://australiainstitute.org.au/report/regulatory-carbon-capture/>

extract more oil.⁸ Santos has refused to rule out EOR for ‘phases’ of the Moomba CCS project other than Phase 1.⁹

‘Clean’ hydrogen combines fossil fuel-based hydrogen production with CCS. This is clear in the Federal Government’s current definition of clean hydrogen: “produced using renewable energy or using fossil fuels with substantial carbon capture and storage (CCS)”.¹⁰ The Hydrogen Guarantee of Origin Scheme is necessary to distinguish zero emissions renewable hydrogen, which should be prioritised, over fossil fuel-based hydrogen. The Guarantee of Origin Scheme should also make clear how much CO₂ from hydrogen production is actually stored through CCS, rather than the assumed or average CCS sequestration rate.

The LETS 2021 includes Emerging Technology Groups¹¹ that have clear track records in reducing emissions and should be prioritised over CCS and fossil hydrogen including: abatement of fugitive methane, energy efficiency, demand flexibility and transport. Instead of these technology groups, the LETS 2021 prioritises livestock feed supplements and low emissions cement, with no justification for this choice.

Low cost solar is highlighted in the LETS 2021 as a new priority technology, however this focuses on large scale deployment. Household electrification and energy management should also be given high priority status to enable low cost solar. Energy for Australian households is responsible for 42% of Australia’s national emissions (excluding exports).¹² Key missing technologies to enable higher solar penetration include integration and energy management.¹³

The LETS 2021 also includes unsupported statements such as the claim that “coal and gas will continue to have an important role in the world’s energy mix for years to come”, referencing the IEA World Energy Outlook (WEO) 2020. However the WEO 2020 actually says that in a Net Zero 2050 pathway, from 2020 to 2030, “Coal demand

⁸ Ogge, Hemming & Campbell (2021) *Santos’ CCS Scam*, <https://australiainstitute.org.au/report/santos-ccs-scam/>

⁹ ABC (2021) *Carbon capture and storage is gaining momentum, but it remains controversial*, https://www.abc.net.au/7.30/carbon-capture-and-storage-is-gaining-momentum/_13666782

¹⁰ Australian Government (2020) *TECHNOLOGY INVESTMENT ROADMAP DISCUSSION PAPER: A framework to accelerate low emissions technologies*

¹¹ Australian Government (2021) *Low Emissions Technology Statement 2021*, <https://www.industry.gov.au/sites/default/files/November%202021/document/low-emissions-technology-statement-2021.pdf> p. 54

¹² Griffith (2021) *Rewiring Australia: Castles & Cars Technical Study*, <https://www.rewiringaustralia.org/castles-and-cars>

¹³ Griffith (2022) *The Big Switch: Australia’s Electric Future*

falls by almost 60% over this period to a level last seen in the 1970s.”¹⁴ The more recent IEA Net Zero by 2050 report says there should be no new investment in oil, gas or coal projects from 2021 to keep global warming to 1.5 degrees.¹⁵ The Australia Institute expects any statements around the future of coal and gas to reflect the latest analysis from the IEA.

Transparency and accountability

Consultation on the 2020 and 2021 LETS was limited. Data and assumptions behind the Technology Investment Roadmap Discussion Paper 2020 were not disclosed, limiting the possibility of credible consultation.¹⁶ Similarly, consultation for the LETS 2021 was limited to “targeted industry consultation and new engagement with our international partners”.¹⁷

The first LETS in 2020 committed to provide a transparent way of reporting and tracking on the Roadmap’s progress. The impact evaluation framework is relegated to the last pages of the 102-page LETS 2021 and does not measure progress since 2020.

Metric 3.4 is supposed to focus on “actual and projected progress of Australia’s annual emissions (tonnes), relevant to the contribution of priority technologies”.¹⁸ This has not been fulfilled. The LETS 2022 must fulfil this commitment, and improve transparency and accountability of achievements under the Technology Investment Roadmap.

Recommendations for the LETS 2022:

- Undertake open, extensive and transparent consultation with diverse stakeholders, not limited to industry partners

¹⁴ IEA (2020) *World Energy Outlook 2020*, <https://www.iea.org/reports/world-energy-outlook-2020> p. 123

¹⁵ IEA (2021) *Net Zero by 2050*, <https://www.iea.org/reports/net-zero-by-2050>

¹⁶ Swann et al. (2020) *Submission: Technology Investment Roadmap Discussion Paper*, <https://australiainstitute.org.au/wp-content/uploads/2021/01/P937-Austarlia-Institute-Sub-Tech-Roadmap.pdf>

¹⁷ Australian Government (2021) *Low Emissions Technology Statement 2021*, <https://www.industry.gov.au/sites/default/files/November%202021/document/low-emissions-technology-statement-2021.pdf> p. 23

¹⁸ Australian Government (2021) *Low Emissions Technology Statement 2021*, <https://www.industry.gov.au/sites/default/files/November%202021/document/low-emissions-technology-statement-2021.pdf> p. 98

- Commit to measure progress on all metrics identified in the impact evaluation framework, especially emissions reduction achievements and projections for priority technologies
- Commit to a date in the next 12 months for finishing and deploying the Hydrogen Guarantee of Origin certification scheme
- Remove CCS as a priority technology
- Prioritise the following technologies:
 - household electrification, integration and energy management, to enable low cost solar
 - renewable, zero emissions hydrogen over fossil fuel-based hydrogen (including with CCS)