



2026 Annual Progress Advice

Response to Question 10, with public-register evidence relevant to Question 9

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Declaration of interests

HelioVulcan is an independent industrial intelligence practice. We reconstruct Australian industrial assets, energy positions and emissions exposure from the public record — regulatory registers, energy and emissions accounts, pollutant inventories, spatial layers and company disclosure — and provide paid research and analysis on industrial assets, energy and emissions, policy and regulation, and projects and investment to industry, investors and lenders, including in relation to facilities covered by the Safeguard Mechanism. We have a commercial interest in Australian industrial decarbonisation activity.

This submission was prepared independently. It was not commissioned, funded or sponsored by any third party, and no client or third party reviewed or had input into its findings or recommendations.

This submission does not argue that the Safeguard Mechanism should be tightened or relaxed overall. It does not recommend a specific baseline decline rate, ACCU-use limit or coverage threshold.

1. Our recommendation

Question 10 asks whether the Safeguard Mechanism should play a stronger role in encouraging onsite abatement, what objectives should guide that assessment, and whether additional incentives or constraints are warranted.

Option 4 in Table 4 states that an ACCU-use limit could apply to all facilities or only to facilities in subsectors with cost-effective abatement opportunities. This submission considers how the latter approach could be identified and implemented.

Four objectives should guide the assessment

Additionality. A constraint should produce onsite abatement that would not otherwise occur, rather than merely increasing compliance costs.

Cost-effectiveness. The marginal cost of additional onsite abatement should be compared with the cost of ACCU-based compliance and other available abatement opportunities.

Practicality and fairness. The party responsible for the facility's baseline must be able to control, or influence through contract, the relevant investment and must be given a reasonable implementation period.

Administrative simplicity. Any arrangement should use standardised evidence requirements and clear review periods while avoiding unnecessarily complex facility-by-facility discretion.

A two-tier approach

We do not recommend limiting ACCU use solely on the basis of broad industry classifications. If the Authority considers a targeted arrangement warranted, we suggest a two-tier assessment:

1. Screen facilities by subsector and emissions-source type to identify those that may have onsite abatement opportunities.
2. Allow facilities to seek an exemption, transition period or differentiated treatment based on technical applicability, marginal abatement cost, control of the relevant assets and implementation time.

Public registers can support the first-tier screen. They cannot, by themselves, establish that a technology will be suitable or cost-effective at another facility and should not independently trigger an ACCU constraint.

The second tier should use standardised evidence, limited reporting fields and a defined review cycle. Without these safeguards, administrative costs and strategic classification could erode the benefits of a targeted arrangement.

2. Four conditions to assess

Before applying a targeted ACCU arrangement, we suggest asking four questions in sequence:

1. Does the facility have a relevant and technically addressable emissions source?
2. Has the technology been shown to be deployable under comparable operating conditions?
3. Can the party responsible for the baseline control, or influence through contract, the relevant investment?
4. What are the marginal cost and implementation period of onsite abatement relative to purchasing ACCUs?

Where evidence is unavailable, the condition should be recorded as requiring further information. It should not automatically be treated as either satisfied or unsatisfied.

Condition	What public data can establish
1. Presence of an addressable emissions source	An initial signal for some emissions-source types
2. Replicability of the technology	An initial signal from registered projects
3. Control of assets and investment decisions	Cannot be determined
4. Marginal cost and implementation period	Cannot be determined

Public data can assist with preliminary screening under the first two conditions. It cannot complete the four-part assessment.

3. What public data can establish

3.1 Technologies deployed at specific facilities

We matched the CER's ACCU Scheme Project Register against FY2024–25 facility-level Safeguard data.

The matching identified 36 onsite projects associated with 25 Safeguard facilities. These projects have received a cumulative 5,161,903 ACCUs.

Method category	Facilities	Projects	Registered post-reform	Projects with issuances	ACCUs issued
Industrial Fugitives	9	13	6	6	2,048,886
Energy Efficiency	15	21	0	6	860,810
Carbon Capture	1	1	0	1	1,194,662
Facilities (industrial process)	1	1	0	1	1,057,545
Total	25	36	6	14	5,161,903

Facilities are counted by unique facility name and projects by project registration number. A facility may have projects in more than one method category, so the facility counts in the individual rows do not sum to the total. The 25 matched facilities are a lower bound rather than a count of all facilities that have undertaken onsite abatement; see section 4.2.

Across all vintages, the 25 matched facilities comprise nine coal mines, three cement and lime facilities, three basic chemical facilities, two pulp and paper mills, two steel facilities, two oil and gas facilities, one refinery, one fertiliser facility, one mine power station and one metal ore mine.

Of the projects identified through this matching, six were registered after reformed baselines commenced on 1 July 2023. They are associated with five facilities and are all coal mine waste gas electricity-generation projects under the Industrial Fugitives category. Four were registered between 16 and 19 March 2025.

The issuance records show that coal mine waste gas use, catalytic N₂O abatement at nitric acid plants, carbon capture and a small number of process-efficiency technologies have produced method-compliant abatement at specific facilities.

Registered projects can therefore be used to identify facilities and emissions sources warranting further assessment. They should not independently trigger an ACCU constraint.

3.2 A screening example: large onsite electricity generation at mining facilities

Among 115 covered mining facilities, 46 reported an Electricity generation production variable and 69 did not.

Group	Facilities	Covered emissions (tCO ₂ -e)	Share of Safeguard covered emissions
Reported an Electricity generation production variable	46	16,873,583	12.7%
Did not report it; methane was the predominant gas	26	15,989,018	12.0%
Did not report it; CO ₂ was the predominant gas	43	10,508,185	7.9%
Mining total	115	43,370,786	32.7%

This indicator is specific to mining and identifies only one type of emissions source; see section 4.3.

Reporting an Electricity generation production variable provides an initial signal that a mining facility has significant onsite electricity-generation activity. The three groups suggest different lines of further assessment.

The 46 facilities that reported the production variable may warrant assessment of fuel switching, renewable generation, storage and electrification opportunities.

The 26 facilities that did not report it and whose emissions were predominantly methane warrant further investigation of fugitive methane sources. The post-reform projects identified in section 3.1 were concentrated in coal mine waste gas use, which provides evidence of deployment at specific facilities.

For the remaining 43 facilities, the matched project data does not reveal a single mature abatement pathway that could be applied across the group.

Where onsite technologies are not yet mature, or are materially more expensive than ACCU-based compliance, an ACCU constraint may increase near-term compliance costs without producing a corresponding amount of near-term onsite abatement.

This grouping identifies what should be investigated next. It does not, by itself, identify facilities with cost-effective abatement opportunities or determine where ACCU constraints should apply.

4. What public data cannot answer

4.1 Information the registers do not record

Public registers identify the responsible emitter, ACCU project proponent, facility-level SMC issuances and units surrendered for facility compliance. They do not establish:

- who legally owns or operates the equipment requiring modification;
- who controls the capital expenditure decision;
- how credit revenue and fuel savings are allocated under contract;
- the marginal abatement cost or required implementation period;
- whether a registered project has commenced construction, entered operation or remains operational; or
- what unregistered or internally funded projects are planned.

Some of this information can be assembled case by case from other public sources — contractor project records, state operating licences and company disclosures — but not systematically from national registers. A targeted arrangement applied across the scheme would require it to be reported.

An ACCU project proponent does not necessarily own the relevant equipment or receive the full economic benefit of the project. Similarly, the party responsible for a Safeguard baseline may not be able to approve an asset modification unilaterally.

Any targeted arrangement based on these factors would require additional facility-level information on technical applicability, asset control, costs and implementation timing.

4.2 Limits on what the project matching shows

Deployment is not cost-effectiveness. The issuance records do not establish that these technologies are cost-effective across an entire subsector, or that another facility has comparable gas concentrations, flow rates, available space, grid access, capital costs or contractual conditions. Coal mine waste gas projects, in particular, depend on the source, concentration and stability of gas flows, as well as safety requirements and the available utilisation equipment.

The 25 matched facilities are a lower bound, not a count of all Safeguard facilities that have undertaken onsite abatement. The matching does not capture activity supported through SMCs, renewable energy certificates, internally funded projects, uncredited efficiency improvements or routine equipment replacement.

We do not interpret the six post-reform registrations causally. The availability of SMCs may have changed the relative attractiveness of registering an ACCU project, and this interaction cannot be fully observed in the public data.

The matching itself may omit or misattribute projects. It used project names, corporate-group relationships, locations and activity descriptions. It may omit relevant projects following name changes, corporate restructures or asset sales, and may produce uncertain matches where project and Safeguard facility boundaries do not align.

Cumulative ACCU issuances are project-lifetime figures. They are not estimates of current annual onsite abatement and cannot be used to determine the causal effect of the 2023 Safeguard reforms.

4.3 Limits on the production-variable indicator

The indicator is specific to mining. A facility that does not report an Electricity generation production variable may still have stationary combustion sources or other addressable emissions. Cement kilns and alumina calciners, for example, can have material stationary combustion without reporting electricity generation as a production variable.

It identifies an activity, not an opportunity. Reporting the production variable does not establish who owns the generating assets, whether a particular technology is suitable, or whether an investment would be cost-effective. For the 43 facilities that did not report it and whose emissions were predominantly CO₂, gas-level data alone cannot establish whether the reported CO₂ came from mobile equipment, stationary combustion or another activity.

The available public data is insufficient to determine whether an ACCU constraint would produce onsite abatement at any particular facility.

5. Data and validation

The facility data were drawn from the CER's FY2024–25 and FY2023–24 *Safeguard facility reported emissions* datasets. Project data were drawn from the CER ACCU Scheme Project Register dated 31 May 2026. Production-variable data were drawn from the CER's emissions-intensity determination data dated 15 May 2026.

All shares of total Safeguard emissions in this submission use a denominator of 208 covered facilities and 132,797,928 tCO₂-e of covered emissions. Facilities disclosed under section 58B as eligible facilities, but not covered facilities for the year, were excluded.

As a validation exercise, our reconstruction produced:

- 10,831,682 ACCUs surrendered, compared with the CER's published figure of 10.8 million;
- 2,582,112 SMCs surrendered, compared with the published figure of 2.6 million; and
- 68 coal mining facilities with 31.8 MtCO₂-e of covered emissions, compared with the published figure of 31.7 MtCO₂-e.

One result was not reproduced exactly. We identified 24 facilities at which ACCU surrender equalled or exceeded 30% of the baseline, while the Authority and Department report 23.

The difference may arise from the treatment of deemed surrender, but we have not resolved it. This figure is not relied upon in support of the recommendations in this submission.

Facility-level matching results, excluded records and the matching rules used are available from Heliovolcan on request.