

# Fact Sheet:

## Prioritising fugitive methane abatement makes economic sense for Australia

### Methane emissions from coal and gas projects could increase, jeopardising emissions reduction targets

The government expects methane emissions to stay flat to 2035, while carbon dioxide emissions halve. This is at odds with its commitment to help reduce global methane emissions by at least 30% by 2030, and methane emissions could singlehandedly jeopardise 2035 emissions reduction targets for Australia, Queensland and New South Wales if not addressed. Emissions could even rise in the coming decade as:

#### Underreporting is corrected:

New technologies such as satellite monitoring suggest that methane emissions from coal, oil and gas projects could have been materially underestimated. In particular, open-cut coal mines could emit nearly six times more methane than reported.

#### Metallurgical coal grows:

Metallurgical coal is more methane intensive than thermal coal.

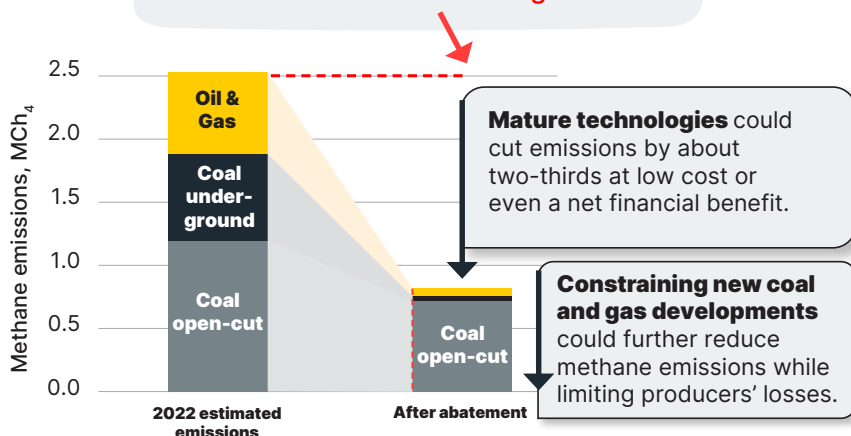
#### Mines get deeper:


As mines grow, they dig deeper, where coal seams contain more methane.


There is also a high risk that the large pipeline of open-cut coal developments could lock in high volumes of emissions for decades to come.

## Prioritising methane abatement makes economic sense for Australia


**Existing policies and incentives will not curb methane emissions.** The government projects only a slight reduction to 2035, jeopardising federal/state emissions reduction targets.



 The gas sector could reduce **90%** of its methane emissions at a net financial benefit by selling the captured methane.

 Low-cost technologies could almost eradicate methane from **underground coal mines**. **Open-cut mines** can reduce methane by 20%-80% using pre-drainage. The 11 most emissions-intensive mines could address half the sector's emissions.

**The net cost** is estimated at about **\$1/t coal - 0.5%** of recent revenue levels.

 IEEFA calculates the lost value of fugitive emissions to be around **~\$933m**.

**Australia could abate two-thirds of its fossil fuel methane emissions using readily available technologies.**

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# Existing policies are ineffective at driving methane reductions

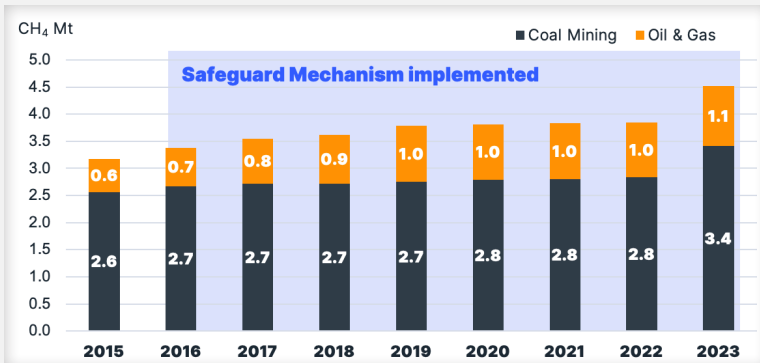
Coal and gas methane emissions may have risen since the introduction of the Safeguard Mechanism, contrary to national inventory estimates.

## Shortcomings limit the Safeguard Mechanism's effectiveness:

- Baselines have increased and often do not require emissions reductions for coalmines.
- Underreporting means safeguard facilities' coverage is inaccurate and baselines and reduction rates are inappropriate.
- Measurement methods and unlimited access to carbon offsets remove incentive to act.

**Overall, the financial incentives are insufficient to drive company action.** The lack of clarity over companies' actual emissions makes it harder to develop a business case for their reduction. Companies also face capability gaps, and prioritise other, more profitable uses of capital.

## Australian coalmine and gas methane emissions, 2015-2023



Sources: Climate TRACE; IEEFA analysis

## Urgent government action is required to reduce methane emissions

### URGENTLY FIX EXISTING PROCESSES



#### Scrutinise coal and gas development approvals

- New developments should be scrutinised on their net cost/benefits.
- Make approvals of new projects or expansions/extensions conditional on comprehensive methane plans.



#### Improve methane measurement

- Stop low order methods for open cut coalmines and oil and gas.
- Develop and move to higher order methods based on direct measurement and independent verification.
- Develop top-down methods for monitoring and verification.

### DRIVE METHANE ABATEMENT OPTIONS INCLUDE:



#### Regulation

- Require best practice equipment and processes in the gas sector.
- Require VAM abatement and enhanced drainage and leak repair in underground mines, plus enhanced pre-drainage in open-cut mines, starting with the highest emitters.
- Further limit venting and flaring.
- Regulate post-operating emissions.



#### Price Signals

- Enhance existing price signals by amending the Safeguard Mechanism.
- Facilitate access to generate carbon credits for methane abatement.
- Consider new mechanisms such as a methane tax or tax incentives.
- Extend existing schemes to provide financial support to first movers and to cover post-operation emissions.

**Australia is lagging globally, as the United States, China and Europe are moving ahead with strong regulation and price signals to address their fossil fuel methane emissions.**

### About methane:

Methane is nearly 30 times as potent as carbon dioxide at trapping heat in the atmosphere. As a result, it contributed to about 30% of the post-industrial increase in global temperatures. Because methane is both a powerful greenhouse gas and short-lived compared to carbon dioxide, achieving significant reductions would have a rapid and significant effect on atmospheric warming potential.

### About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

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