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Coal's Second Chance — and the Clause Nobody Is Reading

The Strait of Hormuz crisis is handing coal a new lease. That lease has conditions attached. Almost no one is enforcing them.

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82×	42M t	~70%	$20/t	1%
Methane potency vs CO_2 (20-yr)	Coal mine CH_4 per year	VAM share of emissions	VAM abatement cost	Currently abated

THE NUMBER

1%

The share of its total methane emissions the coal industry is currently abating. The technology to do more exists, costs around $20 per tonne of CO_2-equivalent, and has been operating commercially for fifteen years. The financing mechanism to make it happen does not exist. That is what this issue is about.

The world's most important oil chokepoint is functionally impaired. Around 20 million barrels per day of crude and oil products transited the Strait of Hormuz in 2025, along with roughly one-fifth of global LNG trade. Since hostilities escalated, commercial traffic has been severely disrupted. Brent crude jumped around 15% in the opening days of the conflict, then surged toward $120 a barrel as markets began pricing in sustained disruption. Wood Mackenzie analysts have said publicly that $200 per barrel is not outside the realms of possibility this year.

Energy ministries do not wait for analysts to finish their sentences. The response has been fast, and predictable: reach for coal.

The rush back to black

The responses are already concrete. The Philippines became the first country in the world to declare a national energy emergency, with President Marcos signing the executive order on 24 March. Hours earlier, the energy secretary had announced the country would boost output from its coal-fired power plants to keep electricity costs down as the war disrupted gas shipments — a direct, explicit policy switch from gas to coal, triggered by the conflict. India, meanwhile, is boosting coal production and has put its Ministry of Coal on explicit standby, holding 210 million metric tonnes in stock — sufficient for roughly 88 days of demand.

South Korea is considering reactivating mothballed coal power plants, while simultaneously accelerating the restart of nuclear reactors.

Europe is not immune — but its situation is structurally different from Asia's. Natural gas prices in Europe have jumped 60% since the start of the conflict. European gas storage entered 2026 at 46 billion cubic metres — well below the 60

bcm held at the same point in 2025 and 77 bcm in 2024. The pressure is real. But Europe's ability to respond by switching to coal has largely been foreclosed by its own energy transition: a 77% gas price increase now reduces gas generation by only 5%, because so much coal capacity has already been retired. Potential coal switching capacity across Europe amounts to approximately 20 TWh of additional power supply, primarily in Germany — and even that reserve fleet carries an average age of 50 years, making its reliability uncertain. In the markets where switching is still possible, rising gas prices have prompted a temporary return to coal, increasing demand for ETS allowances and driving additional carbon price pressure. The bigger coal story is not in Europe. It is in Asia — and that is where the methane abatement argument bites hardest.

None of this is irrational from a national security standpoint. Analysts note that renewables and their associated technologies are now commonly perceived as an energy security tool — no longer only a way to combat pollution and climate change, but a geopolitical asset supported by pragmatism rather than idealism. But the transition is not instantaneous, and in the gap, coal fills the space. It always does.

The question that energy security discourse consistently fails to ask is: when coal gets its second lease, what are the terms?

A coal processing facility with methane flare visible — the infrastructure of an industry whose methane footprint remains almost entirely unaccounted for.

The hidden rider on every coal contract

Coal mine methane is not a niche concern. It is a climate problem of the first order that sits almost entirely outside the energy security conversation.

Coal mining emits an estimated 42 million tonnes of methane per year — about half the amount released by the entire oil and gas sector. Using the 20-year global warming potential of 82, that is equivalent to 3.5 gigatonnes of CO_2 annually — comparable to the yearly tailpipe emissions of around 1.4 billion passenger cars, based on a global fleet average of approximately 2.5 tonnes of CO_2 per vehicle per year.

Methane impacts global warming 82 times more than CO_2 when measured over 20 years. It does not linger for centuries the way CO_2 does — it oxidises after roughly 12 years. Because a continuous source builds a stable atmospheric load over that period — each year's emissions replacing the last as they oxidise — stopping that source produces an immediate reduction in atmospheric methane. No other climate intervention at scale can make that claim.

Ventilation air methane — the low-concentration methane exhausted through mine ventilation shafts to maintain safe working conditions — accounts for around 70% of total methane emissions from underground coal mines. It is the largest single abatement opportunity in the coal sector, and among the least addressed.

'The coal industry is currently abating approximately 1% of its total methane emissions.'

Read that again.

The escape clause is cheap and available

Here is what makes this genuinely anomalous: the technology exists, it works at commercial scale, and the cost is low by any comparative measure. Methane abatement is one of the most cost-effective ways of reducing greenhouse gas emissions — at a price equivalent to around $20 per tonne of CO_2-equivalent. According to the IEA, around 90% of abatable coal mine methane emissions could be eliminated at or below that threshold.

For context, carbon capture and storage — still frequently cited as a coal transition solution — carries a long-term target cost of $40–120 per tonne, but real-world prices tell a different story. The Swedish Energy Agency's recent BECCS reverse auction — one of the few CCS procurement exercises conducted at scale anywhere in the world — implied support costs of $100–190 per tonne, and that figure does not account for the scarcity of suitable geological storage sites. Experts familiar with North Sea CCS development have warned that as the best storage fields are used, costs could rise to several hundred dollars per tonne within a few years. CCS has yet to demonstrate consistent commercial viability at scale, and its cost trajectory points upward, not down.

Technology	Cost / tCO_2e	vs. VAM
VAM Mitigation	**$20/t**	**1× baseline**
Carbon Capture & Storage	$100–190+	5–10× more
Direct Air Capture	$600–$1,000	30–143× more

CMM emissions from underground mines can be reduced by over 50% using technologies that already exist and are scalable. Regenerative thermal oxidisers (RTOs), the primary technology for destroying ventilation air methane, have been operating commercially for over fifteen years. The biggest obstacles, as a recent UNECE-convened expert exchange concluded, are not technological — they are regulatory and financial.

The UNECE's own 2025 Best Practice Guidance on VAM Mitigation, developed by a taskforce of technical experts, provides the operational roadmap. What it cannot provide is the policy will to mandate its use, or the carbon market infrastructure to make abatement financially self-sustaining.

Writing the new lease differently

The opportunity the current crisis creates is not simply to reduce harm from new coal demand. It is more precise than that. Every coal-producing country making emergency output commitments right now is setting operational norms that will persist for five to fifteen years — the working life of a mine expansion or a reactivated shaft. Methane abatement requirements written into those norms now will generate climate benefit across that entire period. Methane abatement requirements omitted now will be extraordinarily difficult to retrofit.

The IEA estimates that around $85 billion in spending from the coal sector is needed through 2030 to implement all available methane abatement measures. That figure sounds large until set against context: the global coal industry generated over $900 billion in revenue in 2022 alone. Even at today's lower prices, the cumulative abatement investment represents a fraction of a single year's sector income — and against the climate cost of the alternative.

Carbon markets offer one mechanism to close the financing gap. CMM abatement is eligible under several voluntary and compliance frameworks, and VAM destruction projects have generated verified credits in California, Australia and, until recently, China's CCER (Certified Emission Reduction scheme).

The EU Methane Regulation, in force since August 2024, establishes a second lever — an import framework that will eventually tie market access to methane emissions performance. But its teeth phase in slowly: importer reporting requirements only began in May 2025, equivalence obligations for new supply contracts apply from January 2027, and methane intensity limits on imports do not activate until 2030. In the meantime, 90% of EU hard coal imports arrive from five countries — Australia, the United States, Colombia, South Africa and Kazakhstan — none of which currently operates a monitoring regime equivalent to what the regulation will eventually require. The framework exists. The enforcement architecture is still being built.

The energy security shock of 2026 will likely accelerate coal's return in the short term. That is probably unavoidable. What is not unavoidable is repeating the error of treating coal as a black box — extracting the energy, venting the methane, and accounting for neither. The escape clause is in the contract. Someone needs to start enforcing it.

WHAT THE MARKET IS MISSING

The IEA's Global Methane Tracker models what the Global Methane Pledge — a commitment to cut all anthropogenic methane emissions by 30% by 2030 — would mean specifically for the coal sector if applied in full. The answer: a 30% reduction in coal mine methane emissions by 2030. The policies and regulations currently in force would deliver just under 15%. No country has made an explicit standalone pledge on coal mine methane alone — the 30% is a ceiling derived from applying the broader pledge to the coal sector, not a coal-specific commitment. Practitioners working in the field regard even the 15% figure as optimistic, given the near-total absence of enforcement mechanisms and financial incentives at mine level. The gap between what is theoretically possible and what is actually happening is not a measurement problem or a technology problem. It is a financing problem.

The EU ETS, the world's most developed carbon pricing mechanism, contains no credit pathway for coal mine methane abatement. Voluntary carbon markets — which briefly offered that pathway through California, Australia and China's CCER — have retreated, stalled or been suspended. The EU Methane Regulation creates compliance obligations but no revenue mechanism to meet them. The $85 billion the IEA says the coal sector needs to spend by 2030 has no identified source of return.

There is a further complication that has received almost no coverage. The Trump administration has signalled it views the EU Methane Regulation's import provisions as a potential non-tariff trade barrier on US coal and LNG exports. If that position hardens into a trade dispute, the import framework — the one lever that could eventually tie market access to methane performance — faces political pressure before it has even taken effect.

The market is not missing information about coal mine methane. It is missing the price signal that would make abatement financially rational. Until that signal exists, the escape clause stays unread.

WHO'S MOVING

EMBER, April 14. Real-world impact in a Clean Exit: mitigating emissions from ventilation air methane in the EU — online webinar, 3PM Brussels. Panelists from the European Commission, the Research Fund for Coal and Steel, Instrat, Biothermica, and the UNECE VAM Best Practice Guidance taskforce.

UNECE Geneva, April 27–28. The 21st session of the UNECE Group of Experts on Coal Mine Methane and Just Transition convenes, jointly with the Coal Subcommittee of the Global Methane Initiative, at the Palais des Nations. The agenda includes ventilation air methane and ultra-low concentration gas, outcomes from COP30 in Brazil, and the work plan for 2026–2027. It is the most significant annual gathering of technical, policy and regulatory expertise in this space. The Methane Brief will be present.

EU ETS survives — and heads for reform. At the European Council of 19–20 March, eleven member states led by Italy called for suspension of the EU Emissions Trading System in response to the energy price shock from the Middle East conflict. Eight Nordic and Iberian countries held the line. The Commission rejected suspension but committed to a reform proposal by July 2026. That review is now the most consequential near-term opportunity in European carbon market architecture — and the most obvious moment to ask whether coal mine methane abatement should finally become eligible to generate ETS credits. That question does not yet appear to be on the reform agenda. It should be.

China tightens coalbed methane rules. Beijing has introduced a new air pollution standard for coalbed methane, requiring coal mine operators to capture gas at concentrations of 8% or higher with a flow rate of 10 cubic metres per minute or more. The gas must be utilised or stored rather than vented. It is the first new Chinese regulatory move specifically targeting CMM capture in several years — and significant given that China accounts for roughly half of global coal mine methane emissions.

South Korea and Japan signal coal flexibility. Both countries — major LNG importers — have indicated they are reconsidering restrictions on coal-fired generation in response to the Strait of Hormuz disruption. Japan will allow more coal-fired plants in capacity auctions. South Korea is reviewing curbs on polluting power. Neither has yet addressed the methane abatement conditions that should accompany any operating life extension. Separately, Japan's GX-ETS — which became mandatory for major emitters in April 2026 — allows companies to use carbon credits to offset up to 10% of regulated emissions, creating new credit demand in precisely the region where coal use is now expanding.

ABOUT THE METHANE BRIEF

The Methane Brief grew out of the Clean Exit Campaign — launched June 2025, 500,000+ impressions in six months. Published every two weeks for investors, policymakers, and industry decision-makers who need to act on methane now, not later.

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