



Turning Ambition into Action: Scaling Energy Transition Credits for Real Energy Shifts

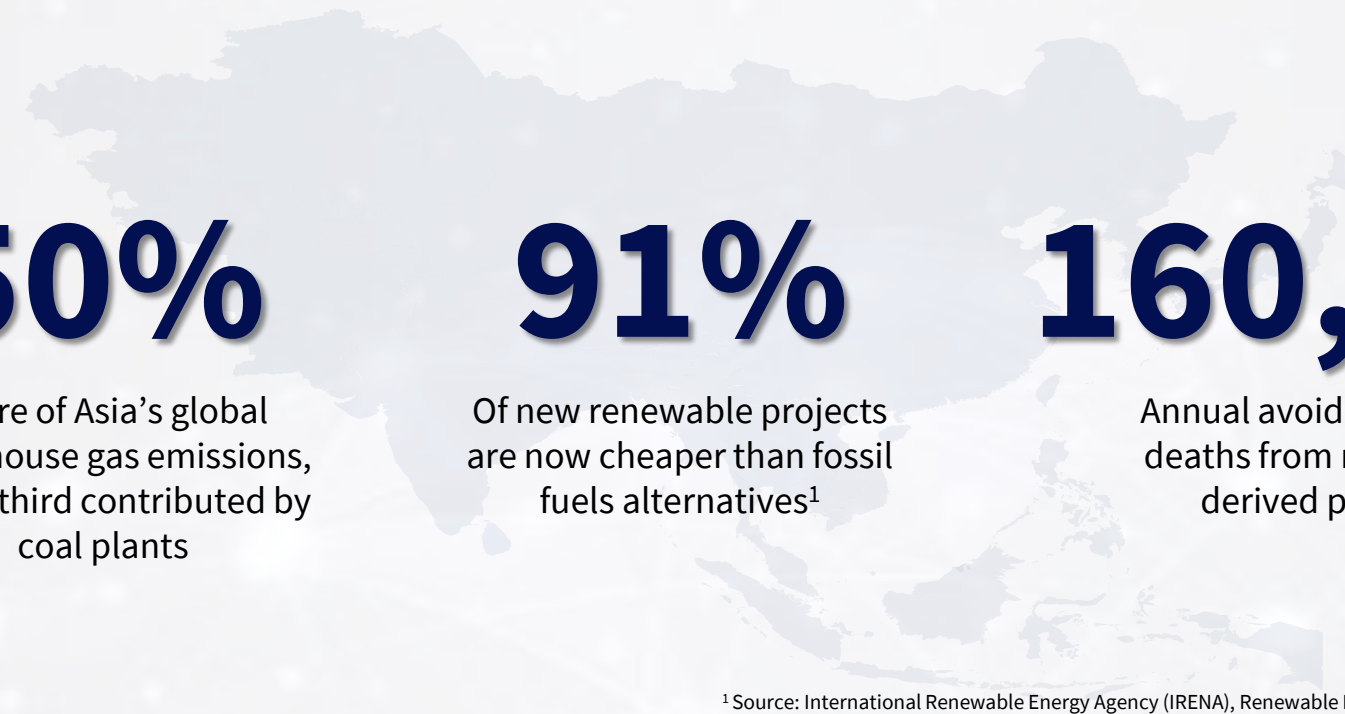
Transition Credits Coalition (TRACTION)
Final Report Presentation

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Belém, Brazil
Interwoven Purpose.
Regenerating Tomorrow.

The coal to clean transition in Asia remains urgent and compelling



50%

Share of Asia's global greenhouse gas emissions, with a third contributed by coal plants

91%

Of new renewable projects are now cheaper than fossil fuels alternatives¹

160,000

Annual avoided premature deaths from reduced coal-derived pollutions²

¹ Source: International Renewable Energy Agency (IRENA), Renewable Power Generation Costs in 2024, Jul 2025

² Source: World Health Organisation, 2025 Lancet Countdown Report, Oct 2025

If Asia's coal plants operate as planned, they will exhaust about **two-thirds** of the remaining carbon budget to keep the rise in global temperatures to within 1.5°C



However, Asia faces distinct energy challenges

60%

Coal remains a major source of power for the region, driven by rising energy demand

7.2_{GT}

Annual emissions from about 2,000 coal-fired power plants

<15_{years}

Average age of coal plants is young, with over 30 years of potential operating life

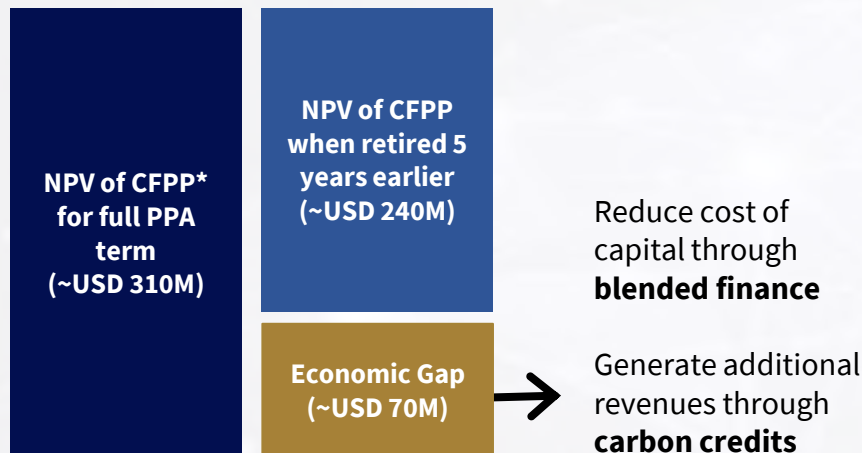
6.7_{mn}

Significant number of jobs supported across the coal value chain

Carbon markets can accelerate Asia's shift from coal dependency toward cleaner and more sustainable energy systems

Energy Transition Credits are carbon credits generated from the emissions reduced from retiring coal plants earlier than planned and replacing them with cleaner energy sources

1 Complementary financing solution to close the economic gap

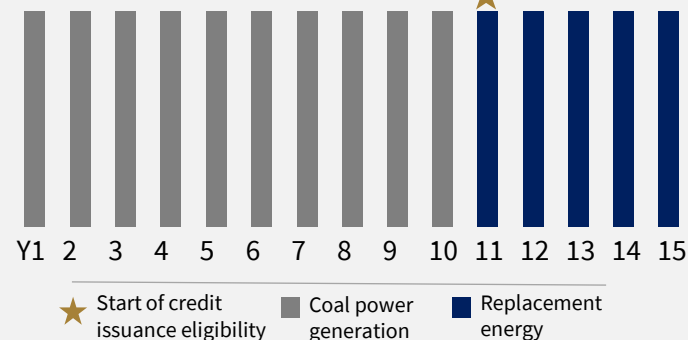


*CFPP Key Assumptions

- **Country:** Indonesia
- **Installed capacity:** 1 GW
- **Technology:** Subcritical
- **Age:** 10-12 years
- **PPA tenure remaining:** 15 years
- **Capacity Factor:** 50%
- **Cost of capital (in IDR):** 8-9%

2 Generated annually, upon verification, over the period of early retirement

Scenario: operate CFPP for 10 years and retire 5 years ahead of PPA tenure



Source: MAS-McKinsey Working Paper "Accelerating the early retirement of coal-fired power plants through carbon credits, Sep 2023

Energy transition credits can deliver real impact with integrity and measurable social benefits built in

Proceeds from the sale of credits can be directed to:

- 1 Accelerate Clean Energy Deployment**
Drive investment into renewables and storage to strengthen energy reliability and accessibility.
- 2 Bridge Financing Gap**
Mobilise private capital to maintain affordability and close cost gaps in the transition.
- 3 Support Just Transition & Community Development**
Foster long-term resilience through re-employment, skills upgrading, and sustainable livelihoods.



Launched at COP28

> 30

Members &
Partners

from financial institutions,
carbon services firms, and
international organisations

MAS-Convened Transition Credits Coalition (TRACTION) mobilises expertise to advance high-integrity energy transition credit

OBJECTIVE

Develop a playbook for energy transition credits to be implemented and scaled as a credible financing solution to accelerate Asia's coal to clean energy transition

THREE PILLARS OF WORK

1 **Support high-integrity credit generation**

To ensure a steady pipeline of high-integrity energy transition credits projects recognised by market as **credible carbon emissions reduction**

2 **Enable transaction scalability**

To ensure that stakeholders have clarity on transition credit risks, practical mitigation strategies, and Just Transition costing – driving **transaction scalability**

3 **Bolster buyer confidence and commitment**

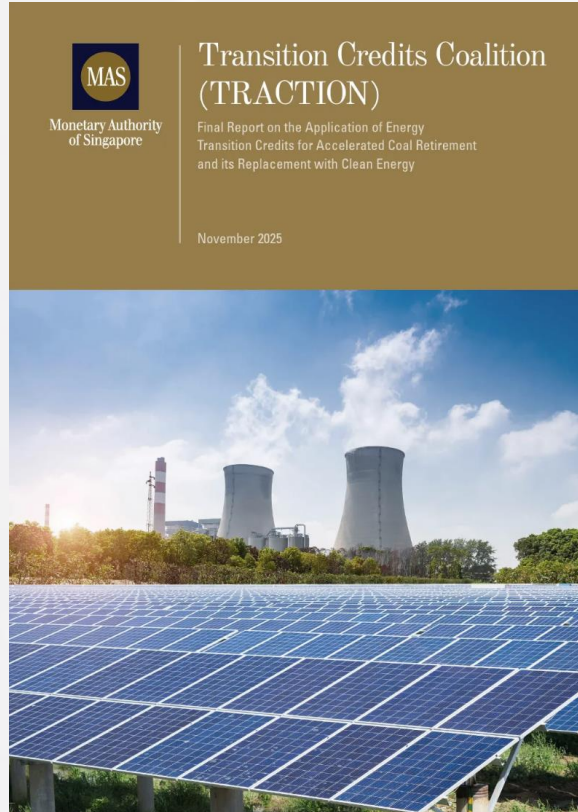
To ensure a steady pipeline of offtake of transition credits by corporate and sovereign buyers, signaling **market confidence and robust demand for energy transition credits**.

Industry momentum and market confidence is growing, with organisations advancing complementary work to scale high-integrity transition credits



- 1 TRACTION's Interim Report launched at COP29**
Outlined integrity, scalability and demand considerations in using energy transition credits to accelerate the early phase-out of coal plants
- 2 Verra released first transition credit methodology**
Launch of first methodology for early coal retirement, incorporating integrity criteria and Just Transition provisions – establishing a global benchmark for integrity
- 3 ICVCM set up Continuous Improvement Work Programme on energy transition credits**
To guide application of integrity principles to coal phaseout credits, supporting clearer rules and market confidence
- 4 Kinetic Coalition launched**
Led by the Centre for Climate and Energy Solutions; the Kinetic Coalition, with over 20 corporate buyers, aims to facilitate transactions for potential buyers with sellers
- 5 The Rockefeller Foundation to scale up its Coal-to-Clean Credit Initiative (CCCI)**
Plans to support up to 60 coal transition projects in countries including the Philippines, Indonesia, Vietnam and others, accelerating the pipeline of high-integrity transition credits.
- 6 SLTEC Pilot Project in Philippines attracted more industry partners**
Mitsubishi and its subsidiary Diamond Generating Asia joined ACEN, Keppel and GenZero in exploring a potential collaboration to bring forward the plant's retirement by 10 years

TRACTION's Final Report sets out practical solutions to make energy transition credits credible, scalable and investable across Asia



1. Pipeline Development: Asia holds strong pipeline of high-integrity energy transition credits, but success depends on addressing region-specific complexities.

2. Scalability: Underpinned by long-term credit offtake agreements, predictable carbon revenues, alternative coal transition approaches, robust risk mitigation solutions.

3. Just Transition: Central to the credibility and long-term viability of early coal phase-out transactions.

4. Demand-building: Gaining momentum, with structured pathways to help prospective buyers to engage with confidence.

Asia holds a strong pipeline of high-integrity energy transition credit projects

Projects will need to meet **four key attributes** of high-integrity ...



**Financial & regulatory
additionality**



**Permanence
of emissions
reductions &
reducing leakage**

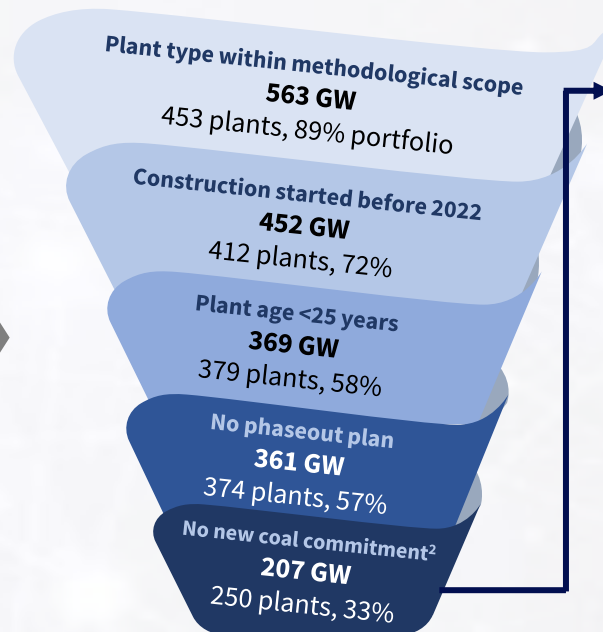


**Robust
quantification of
emissions
reductions**



**Contributions to
Just Transition
& SDGs**

Early analysis showing **207GW or 33% of CFPs across 15 Asian markets**¹ could be eligible for credits generation



207GW, representing
~1.0GtCO₂e of emissions
reductions a year or taking
~200m cars off the road

To be further refined and
expanded by considering:



Asset level attributes
e.g. plant impact on emissions
reduction, livelihoods



Market level attributes
e.g. coal phaseout readiness
and carbon credits generation
potential

Source: Emissions data based on Global Energy Monitor (GEM)'s latest database and assumptions.

¹Markets include: Japan, Mongolia, South Korea, Taiwan, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam, India, Bangladesh

²Currently, the selected markets do not have an in-force no new coal commitment at jurisdiction level applying to both new and existing capacity. As such, the current assessment only screens capacity owned by IPPs.



Success will depend on finding practical and credible solutions to address Asia's energy complexities

Areas for future development by governments, methodology developers, and transaction participants

Develop clear energy plans and enabling policies for energy transition and credit generation

Refine methodology guardrails to strike a balance between practicality and high-integrity e.g. definitions of no new coal commitment

Broaden application to other coal plant archetypes e.g. merchant plants or captive coal plants

Align energy transition credits with **domestic and international carbon programmes**

Realities of Asian power markets make coal to clean transition challenging

High dependence on coal, low renewable energy penetration, limited grid readiness

Energy transition credits can only scale when transactions are viable, investable and replicable

Four Elements Attract Financiers and Investors

Foundation of bankability

- Provides certainty in repayment cashflows

**Long-term
Offtake
Agreement**

**Predictability of
future carbon
prices**

Credible price references provide certainty in future cashflows, through:

- Supply-driven model based on project costs
- Demand-driven model shaped by buyers' obligations or willingness to pay

Strengthen confidence and expand capital flows

- Carbon credit insurance
- Contractual tools, e.g., Inter-SPV agreements and third-party agreements, to define terms and allocate responsibilities

**Risk
mitigation
solutions**

**Alternative coal
transition
approaches**

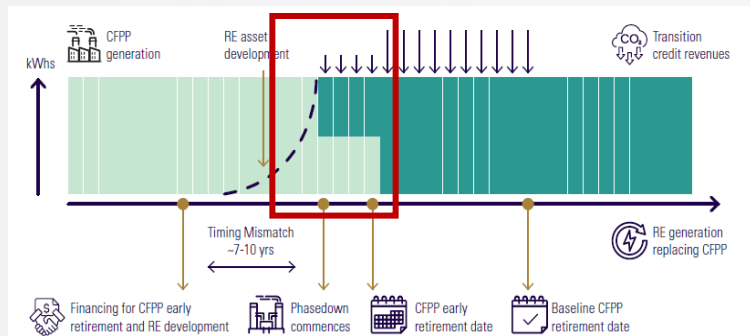
Improves viability and stakeholders buy-in:

- Sequential closure of coal boiler units by units
- Asset repurposing, e.g. conversion to battery storage or synchronous condensers

Alternative coal transition approaches can manage impact on energy reliability, enhance project viability and stakeholder buy-in

Phased Shutdown of Boiler Units

(allowed by transition credit methodologies)



Enable earlier issuance and monetisation of credits



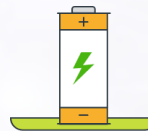
Manage energy reliability, by allowing time for renewables and grid infrastructure to be brought online



Requires grid studies, early investments in renewable and storage, and regulatory approvals

Asset Repurposing

Permanent decommissioning of all coal-related infrastructure and the reuse of non-emitting infrastructure for clean energy and/or industrial applications



Battery Energy Storage Systems



Synchronous Condensers, for grid stability

- **Increase the viability of transactions**, particularly in Asia where the relatively young coal fleets carry significant remaining asset value
- **Enhance economics** by creating new revenue streams and reducing potential over-reliance on credit revenues
- **Strengthen the integrity principles** of credits, as the risk of recommissioning is significantly reduced

Just Transition is central to the credibility, social acceptance and long-term viability of early coal phaseout transactions

Funding Sources	Philanthropic Grants				
	MDB Technical Assistance		MDB Concessional Loans		Local Government Support
	Internal Funds				
			Private Funds, e.g. commercial loans, bonds etc		
			Government Budget Support		
	Energy Transition Credits				
	Pre-Feasibility	Planning & Structuring	Closure		Post-Closure
Key Activities	T-10 Years	T- 9 Years	T- 2 Years	Plant Closure	T + 5 Years
	• Site Visits • Baseline data gathering • Stakeholder consultations	• Feasibility studies • Technical assessments • JT programme design • Early stakeholder commitments	• Rollout of reskilling • SME programmes • Community upgrades • Environmental remediation starts	• Plant decommissioning • Final worker exits • Ongoing community transition	• Site repurposing • LT economic revitalisation • Final Monitoring, Evaluation & Reporting (MER)
Cost Components	• Direct worker costs (initial diagnostics) • MER (early scoping)	• Direct worker transition costs (reskilling frameworks) • Indirect workers / contractor costs (supply chain mapping) • MER (detailed baselines)	• Direct worker transition costs (reskilling, retraining) • Indirect workers / contractor costs (business support) • Community & local economic development (SME grants, infrastructure)	• Direct worker transition costs (severance, job replacement support) • Env't remediation (finalisation) • Community & local economic development (job creation prgm) • MER (closure reporting)	• Env't remediation (plant clean-up) • Community & local economic development • MER (closure reporting)



>80 companies engaged



Energy transition credits can be a credible part of a diversified carbon credit portfolio strategy

Voluntary buyers see appeal in how these credits...



Support decarbonisation in supply chains and climate ambitions



Deliver tangible socioeconomic benefits beyond environmental impact



Meet high-integrity standards with safeguards embedded in credible, robust methodologies

This demand can be unlocked at scale by having...



Clarity on use cases within decarbonisation strategies



Sovereign participation and alignment with compliance regimes

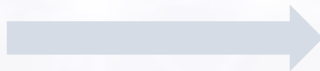
From awareness to action: Demand momentum is growing

Advanced Market Commitments and Buyer Coalitions (e.g. Kinetic Coalition) aggregate early demand for energy transition credits

1. Lowers Participation Barriers for Buyers

- ✓ Enables risk-sharing
- ✓ Reduces due diligence costs
- ✓ Improves price discovery
- ✓ Facilitates early access to project developers and financial partners

A credible and coordinated demand signal



2. Supports Market-Building



Provides plant owners and host countries the confidence to retire their coal plants earlier



Enhances project bankability and attracts financier participation



21 Signatories, including the Governments of Singapore and the Philippines, have joined the Statement of Support for Energy Transition Credits launched by the MAS

Charting the next phase of market implementation



Integrity

Embed integrity and Just Transition into every transaction



Scalability

Bring projects from design to implementation and scale across markets



Demand-Building

Build strong and predictable demand to catalyse investment decisions

Thank You

Members and Knowledge Partners of TRACTION:

AirCarbon Exchange
Aon
Asia Carbon Institute
Asian Development Bank
Bank of America
BeZero Carbon
Citi
Clifford Capital
Climate Impact X
Climate Smart Ventures
DBS
GenZero

Glasgow Financial Alliance for Net Zero
Global Carbon Market Utility
Gold Standard
Howden Insurance Brokers
HSBC
International Energy Agency
International Emission Trading
Association
McKinsey & Company
Mizuho Financial Group
MUFG
Multilateral Investment Guarantee Agency
OCBC

Sumitomo Mitsui Banking Corporation
Standard Chartered
Sylvera
Temasek
The Rockefeller Foundation
United Overseas Bank Limited
Vitol Asia
World Bank Group
World Wide Fund for Nature (WWF)
Singapore

Special Acknowledgments to Organisations that Contributed Box Stories :

ACEN Corporation
Asian Development Bank
Powering Past Coal Alliance
Climate Policy Initiative
Integrity Council of the Voluntary Carbon Market (ICVCM)

Kinetic Coalition
Marsh
Sylvera
The Rockefeller Foundation
World Wide Fund for Nature (WWF) Singapore

TRACTION is supported by RMI as Secretariat and **McKinsey & Company** for providing the data and analysis to Chapter 5 of TRACTION Final Report

Scan QR code to access the Final Report



<https://go.gov.sg/tractionfinalreport2025>