An Introduction to Transition Credits

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The Energy Transition Challenge

Early retirement of coal plants is neither economically feasible (i.e., USD 70 Mn/GW gap to retire a coal plant 5 years earlier) nor easily investable (~USD 310 Mn/GW of upfront financing needed).*

1 PPAs

Long tenure power purchase agreements (PPAs) mean that consumers are locked into long term contracts and thus cannot easily switch out to renewables.

2 CFPP Age

Asia's coal plants are young, less than 15 years old on average. This makes the economics of phasing out coal more challenging.

3 Coal Jobs

According to estimates by the International Energy Agency, more than 80% of the 8.4 million employed globally across the coal value chain is concentrated in Asia.

4 Domestic Policies

Domestic policies (e.g., subsidies and tariffs) in some countries insulate the coal power generation sector from market pressure.

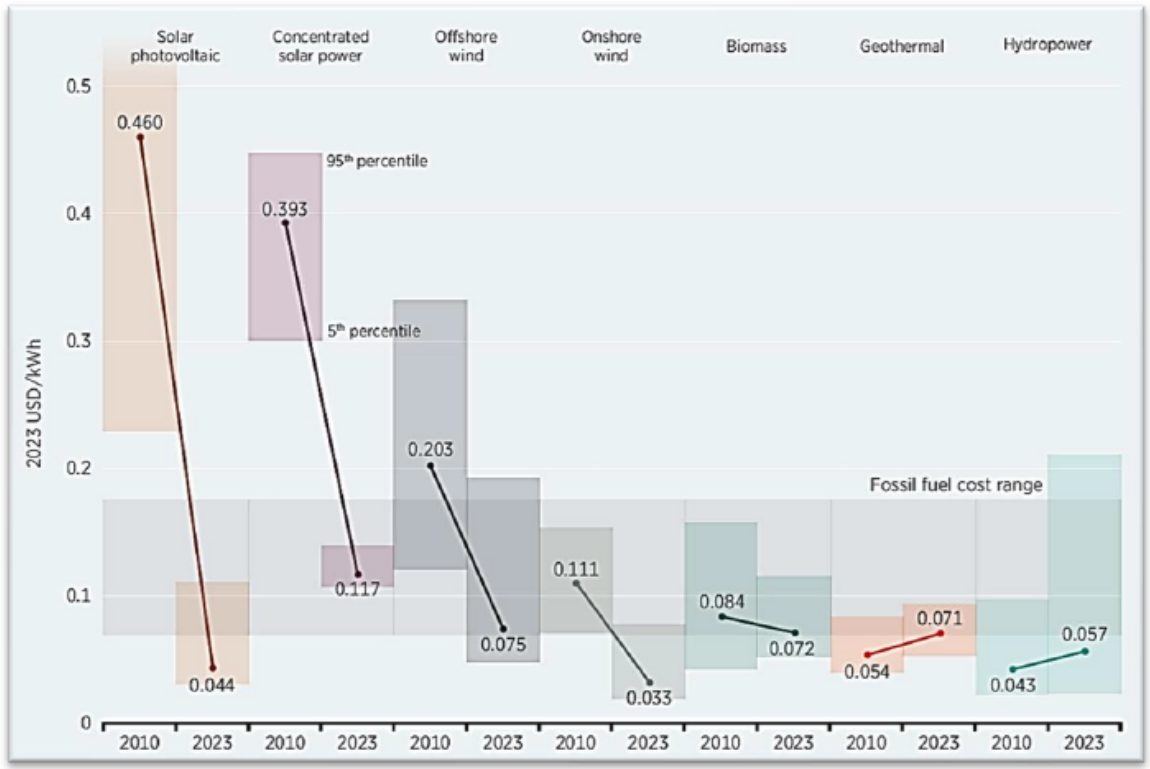
*McKinsey's estimates, based on an illustrative 1 GW CFPP retired 5 years ahead of a 15-year PPA

Risk of Stranded Assets

Even on a global trajectory toward 2°C of warming, alongside widespread deployment of CCS and bioenergy, a total of 267 PWh electricity generation (ten times global electricity production in 2018) may still be stranded.[1]

- The global levelised cost of renewable energy is cheaper than fossil fuels; and will continue to fall.
- More than 50% of the stranded generation globally would be located in Asia.[1]
- Coal-fired power plants make up most of the stranded generation (82% across all models).[1]

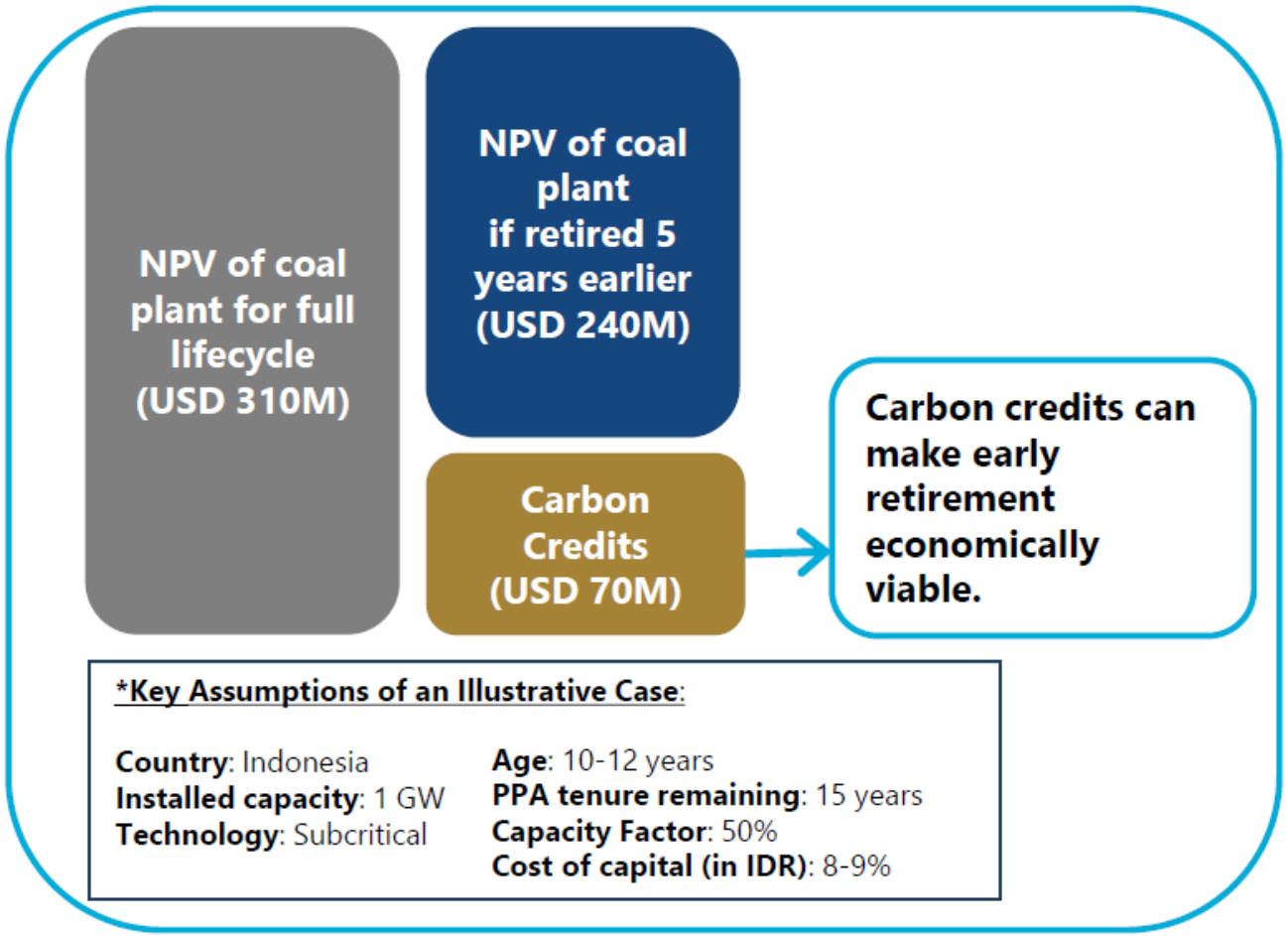
There is a financial risk to leaving coal-fired power plants operational till the end of their lifecycle.



[1] Lu, Y., Cohen, F., Smith, S.M. et al. Plant conversions and abatement technologies cannot prevent stranding of power plant assets in 2 °C scenarios. Nat Commun 13, 806 (2022). https://doi.org/10.1038/s41467-022-28458-7

Transition Credits

Transition credits are carbon credits generated from emissions reductions generated in the energy sector.



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

Transition credits can be generated from:

PROJECT-LEVEL APPROACHES

Generated from emissions reduced from early retirement of coal-fired power plants and their replacement with cleaner energy sources (e.g., South Luzon Thermal Energy Corporation, SLTEC, plant in the Philippines).

JURISDICTIONAL APPROACHES

Generated from emissions reductions measured against a jurisdictional-level baseline with a power sector decarbonisation plan, regardless of activities that generate the reductions.

Transition Credits – Methodology

The first transition credits methodology (by CCCI) was published by Verra at Ecosperity in May 2025.

Accelerated Retirement of Coal-Fired Power Plants using a Just Transition Methodology, and Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-Fired Power Plants Module

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Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-Fired Power Plants

Coal-to-Clean Credit Initiative (CCCI)

The Rockefeller Foundation

Supported by:

CLIMATE POLICY INITIATIVE

south pole

RMI ENERGY. TRANSFORMED.

GEAPP

Other Methodologies in Development:

WINROCK INTERNATIONAL

Gold Standard®

Transition Credits Coalition

The Transition Credits Coalition (TRACTION) consists of 30 industry partners advancing work on integrity, scalability, and trust in transition credits.

1. Support high-integrity transition credit generation

2. Enable transition credit transaction scalability

3. Bolster buyers' confidence and trust in transition credits

Convened By:

MAS
Monetary Authority of Singapore

Workstream Co-Leads

HSBC
Sylvera
DBS
HOWDEN
acx
standard chartered

Members and Knowledge Partners

AON
Asia Carbon Institute
Climate Smart Ventures
ADB Asian Development Bank
BeZero
citi
IETA
GCMU
WWF
Clifford Capital
Climate Impact X
MIZUHO
GFANZ Glasgow Financial Alliance for Net Zero
MUFG
iea
GenZero
Gold Standard
SMBC
TEMASEK
The Rockefeller Foundation
UOB
Vitol
World Bank Group Guarantees | MIGA
OCBC

Transition Credits – Demand

There is robust private sector demand for transition credits. At Ecosperity Week in May 2025:

Launch of the Kinetic Coalition

A coalition of corporations aiming to accelerate clean energy investment in emerging economies by purchasing transition credits.

Kinetic Convened by: C2ES

Members include:

PEPSICO amazon mastercard

Mitsubishi and DGA Join ACEN Pilot

Mitsubishi Corporation and DGA acceded to the MOU between ACEN, GenZero, and Keppel to support the SLTEC pilot.

ACEN

dga

GenZero Keppel

Questions?

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