Case study

ACEN Renewables – using transition credits to accelerate coal closure

December 2024

Philippines-based utility ACEN Renewables is planning to use the carbon markets to accelerate its coal plant closure and fund a just transition for workers and the local community. This 'work in progress' highlights the practical questions around how to govern and price the just transition in an inclusive way.

Summary

- Electricity demand and emissions have risen sharply in the Philippines and, although the country does not yet have a net zero target, it is committed to phasing out coal.
- Through the world's first market-based Energy Transition Mechanism (ETM) transaction, ACEN is accelerating the retirement of its last remaining coal plant, the South Luzon Thermal Energy Corporation (SLTEC) plant.
- The transaction has generated proceeds for investments in the company's burgeoning renewable energy portfolio and it includes just transition provisions to protect the 200 plant workers.
- ACEN is now seeking to sell transition credits – a novel form of carbon credits – to underwrite an accelerated transition and bring forward the plant's closure from 2040 to 2030.
- The transition credits would compensate for foregone cash flows from the coal-fired plant, fund energy replacement through renewables and support a just transition for workers and affected communities.
- ACEN needs to meet two preconditions to guarantee the sale of credits: an agreement under Article 6 of the Paris Agreement related to carbon trading between the Philippines and Singapore, and securing adequate demand at the right price from buyers.
- The drive to tap carbon credits will be watched closely to see how this often-controversial tool can be deployed with both climate and social integrity.

Just Transition Finance Lab case study series

The Just Transition Finance Lab case study series profiles emerging practice in bringing the just transition to life, examining the interplay between companies, finance institutions, workers, communities and policymakers. A major focus is on the role that finance can play in supporting meaningful action.

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The Just Transition Finance Lab is based at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science.

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Introduction

In November 2022, ACEN closed the world's first market-based Energy Transition Mechanism (ETM) transaction. The ground-breaking deal, using a concept developed by the Asian Development Bank (ADB), allowed the Philippines-based energy company to accelerate the retirement of its 246MW South Luzon Thermal Energy Corporation (SLTEC) coal plant.

The transaction, which involved restructuring the plant's debt and its sale to institutional investors, generated proceeds for investments in the company's burgeoning renewable energy portfolio.[1] It also included just transition provisions to ensure that the 200 workers at the plant, in Batangas, would be protected from the effects of its closure, scheduled for 2040.

But the company, under CEO Eric Francia, wanted to go further. In another potential first, it is now seeking to sell transition credits to underwrite an accelerated transition – bringing forward the plant's closure by 10 years, to 2030. That would reduce emissions by around 19 million tonnes of carbon dioxide (CO_2), in addition to the 50 million tonnes avoided by the original ETM transaction. "Using carbon credits related to early coal retirement, and its replacement with clean energy: to us, it's a no-brainer," says Francia.

There is also no alternative, says Joseph Curtin, managing director, power and climate at the Rockefeller Foundation, whose Coal to Clean Credit Initiative has helped draft the methodology which the proposed ACEN carbon credit transaction will use.

"What we need to do is create a transaction structure that combines three elements: closing the fossil fuel asset, replacing it with a clean asset and addressing deeply the needs of the workers and communities." Without revenue from carbon credits, "there simply is no financially viable off-ramp for [coal plant] owners," he says.

The Philippine context

The Philippines currently has 12.4GW of coal-fired capacity, which is expected to increase to 14.7GW by 2030. Like in many developing economies, electricity demand is rising sharply in the Philippines. Since 2000, output has grown by 146% and emissions from the electricity and heat sector by 245%.[2] Its Department of Energy forecasts that peak demand is likely to increase almost four-fold between 2020 and 2040.[3]

1. ACEN (2022) ACEN completes the world's first ETM transaction for the 246MW SLTEC coal plant. Press release, 7 November.
2. International Energy Agency (2023) Energy Statistics Data Browser. Web page.
3. Republic of the Philippines, Department of Energy (2021) Power Development Plan 2020-2040. Taguig City: Department of Energy.

While Philippine policy encourages voluntary early retirement of coal plants, which is one of the focus areas of the government's Energy Transition Plan published in 2023,[4] the country does not currently have a net zero target. According to Climate Action Tracker, the Philippines needs to phase out coal by 2035 to be in line with Paris Agreement targets.[5]

ACEN and its pivot to renewables

Philippine conglomerate Ayala Corporation created its energy platform, AC Energy (ACEN), in 2011. Initially, it predominantly developed thermal assets and, by 2016, had around 930MW of coal assets and 70MW of renewables. At that point, explains Francia, the board took the decision to divest its coal assets, pivot towards renewables, and develop its business internationally.

"It was a leap of faith for the board, giving up steady, predictable cashflows [from thermal power plants], monetising those plants and investing in renewables, which were not tried and tested at scale at that point," he says. However, with Ayala planning to list ACEN, Francia says that a number of ESG-orientated investors began challenging the divestment programme. "They were calling us out, saying that we were just passing the problem to someone else – the emissions are still there. What's worse, if you sell these plants to an unlisted company, they will be less transparent, less

4. Transition Zero (2024) Coal Refinancing in the Philippines: Using the Coal Asset Transition (CAT) tool. Web page.
5. Climate Action Tracker (2023) Philippines Policies & action. Web page.

accountable and, because you are selling these plants at a premium, they are going to run them for as long as they can."

In 2021, the Asian Development Bank (ADB) proposed its Energy Transition Mechanism. The idea behind the ETM is to use concessional finance to retire existing coal-fired power plants early, replacing them with clean power. By refinancing expensive debt with lower-cost capital – from pension funds or from multilateral development banks like ADB – an ETM provides funding for the three elements described by Curtin: to compensate owners for earnings lost by closing the plant; to develop renewables and energy storage to replace the retired power-generating capacity; and to underwrite plant decommissioning, reskilling and other support to protect affected workers, suppliers and local communities.

ACEN began exploring the possibility for an ETM for its SLTEC plant, its last remaining coal-fired asset, with support from ADB. Company management soon realised that the plant was small enough to be able to move forward without the development bank's concessional finance. The plant's "$350 million enterprise book value could easily be absorbed by liquidity in the Philippine market," says Francia.

The transaction involved ACEN selling its shares in its SLTEC subsidiary to a special purpose vehicle (SPV) and two institutional investors, the Insular Life Insurance Company and Government Service Insurance System. By divesting from the plant and reducing its cost of finance, ACEN generated the financial wherewithal to replace the lost capacity with renewables and support the eventual transition of the SLTEC workforce.

Prior to the ETM, SLTEC had debt of PHP10.1 billion (US$170 million) and equity of PHP7.2 billion. The ETM transaction raised PHP13.7 billion of debt (with a 15-year tenor) and PHP3.7 billion of equity. Proceeds from the ETM were used to refinance the debt, cover transaction expenses and generate PHP7.2 billion of proceeds to ACEN (50% through return of capital, and 50% through the secondary share sale). The ETM optimised the capital structure with the use of leverage, lowering SLTEC's de facto cost of capital to under 8%.

The transaction requires the new owners to retire the plant in 2040, 15 years ahead of the end of its technical life, and fund a just transition for the plant's workers and local communities. The company has not disclosed the cost of its just transition plan. The transaction also involves ACEN continuing to buy the power that the plant produces, and operating and maintaining the plant, through an arms-length contract.

Finally, the transaction includes a call option, through which ACEN can repurchase the plant at any point after 2030 up to 2040. "We wanted to make sure that if the current owners do not have the wherewithal to shut down the plant [in 2040], we will exercise our call option and make sure that the plant is shut down," says Francia.

ACEN's 120MW Alaminos solar and 40MW energy storage plant at Alaminos, Laguna

An accelerated phase-out with the help of transition credits

With the climate crisis accelerating alarmingly, 2040 is too distant, Francia says. "The world needs these retirements to be more aggressive," he says. To hold global warming below 1.5°C, emissions from coal need to fall 55% between 2022 and 2030, according to estimates from the International Energy Agency.[6] "That's a daunting challenge," Francia says, "particularly in countries in emerging Asia, where our coal plants are among the youngest."

The relative youth of coal-fired power plants in Southeast Asia makes the economics of their retirement challenging. For their owners to agree to close them down, they have to be compensated for, in some cases, decades of foregone revenue. For ACEN, the ETM was sufficient to compensate the 15 years of lost revenue. To bring that date closer, the company

6. International Energy Agency (2022) Coal in Net Zero Transitions: Strategies for rapid, secure and people-centred change. Paris: International Energy Agency.

will need revenue from another source: such as transition credits.

Transition credits are a novel form of carbon credit. Within Asia, the Monetary Authority of Singapore (MAS) has been promoting the concept, publishing a paper on the subject with McKinsey in September 2023,[7] and launching the Transition Credits Coalition (TRACTION) in December.[8] ACEN's SLTEC retirement is one of two pilots that TRACTION is working on.

The idea is that, if SLTEC were to close down in 2030, and if its electricity were replaced with power from renewable sources, it would reduce emissions by some 1.9 million tCO_2 each year. This would create high quality carbon credits that could be bought by entities under emissions targets – whether as part of mandatory emissions reduction programmes, or as voluntary carbon targets.

Overall, decommissioning the plant early will cost nearly US$2 billion, the company says. Similarly to the original ETM, this covers the costs of three main elements: foregone cash flows from the coal-fired plant, clean energy replacement and a just transition for affected workers and communities.

To compensate for **foregone cash flows**, ACEN estimates annual earnings from SLTEC's power at US$48–75 million, equivalent to US$16–25/$tCO_2$. This will ensure that the current owners are made whole on their investment.

To secure **clean, reliable and affordable energy replacement** by replacing the plant, ACEN calculates that it will need to build around 1,000MW of solar capacity, 250MW of wind, and battery storage able to deliver 4,800MWh of power, with this latter requiring a subsidy of around US$300–450 million. This equates to US$18–27/$tCO_2$.

For the transition credits to deliver a climate benefit, it is important that the power from the closed plant is not simply replaced with power sourced from another fossil-fuelled asset. It is also important that the power grid is not destabilised by replacing predictable, baseload electricity from a coal-fired generator solely with intermittent renewables – hence the battery storage capacity. Combining batteries with wind and solar would deliver 400MW of mid-merit capacity over 12 hours a day, Francia says, explaining: "We can't replace it with baseload, because that would be very expensive, but with a mid-merit plan ... we keep the system whole."

Ensuring a **just transition** in this case includes worker reskilling, redeployment and retirement, along with support for suppliers and the local community.

There are currently around 195 workers hired directly by SLTEC and 210 contractors. Although the ETM makes provision for a just transition, planning is in the early stages. This is because 2040 is perceived as somewhat distant and, as Francia notes, the plant is located in an industrial hub, with plentiful alternative employment opportunities.

The 246MW SLTEC plant

As part of the planning around SLTEC's 2040 closure, the company has collected data on its workers, their skillsets and possible career pathways after retirement of the plant. "A just transition plan anticipating a 2040 retirement year has been developed by ACEN," says Lawrence Ang, managing director of Climate Smart Ventures, a Singapore-based advisory firm that is supporting ACEN in the phase-out of SLTEC. "There is a clear idea of the workers who will have retired by then, who will be rotated to other renewable energy assets within ACEN's portfolio, and who will need to be reskilled."

Bringing forward the plant closure to 2030 would make the need for worker reskilling much more urgent. However, while ACEN management has engaged with the workforce around the 2040 closure date, it is yet to do so regarding a potential 2030 closure. "It's not a done deal. We would like to see the likelihood of success reach a certain point before we engage the workers and communities, because otherwise it's just going to cause anxiety and distraction and cost management time," says Francia.

7. Monetary Authority of Singapore (2023) Working Paper on Accelerating the Early Retirement of Coal-Fired Power Plants through Carbon Credits. Singapore: Monetary Authority of Singapore.
8. Monetary Authority of Singapore (2023) MAS Launches Coalition and Announces Pilots to Develop Transition Credits for the Early Retirement of Asia's Coal Plants. Press release, 4 December.

Joy Hernandez, director of communications and advocacy at the International Trade Union Congress (ITUC)-Asia Pacific, disagrees. "It is important to consult the workers as early as possible, even if it is just a possibility ... I understand that it may create fear among the workers but, at the end of the day, that's the point of having a transition process, to alleviate that fear."

It has not yet been decided what would replace the plant when it closes, notes Ang. "Proper assessments and dialogues are underway" as to whether ACEN decides to develop a large battery on the site, to take advantage of the grid connection, or instead builds a green manufacturing plant, he says. That decision will have implications for continued employment of staff, and for what reskilling they might require.

Hernandez – who notes that she is not familiar with the SLTEC plant or ACEN's specific plans for the plant – says that transition should include decent work provisions and ensure that new jobs are as good as those that are lost. Workers should have the right to organise, freedom of association, collective bargaining, social protections and occupational health and safety standards, she says. She adds that a particular concern in the Philippines is "widespread contractualisation" and the resulting lack of job security among workers. "When we talk about decent work, we don't want work that is insecure," she says.

The transition credit methodology

The generation by projects of carbon credits is typically based on a methodology that sets out critical criteria that need to be met to demonstrate their environmental and social integrity and quantify emissions reductions. A draft methodology for 'Accelerated Retirement of Coal-Fired Power Plants Using a Just Transition' has been submitted to Verra, a not-for-profit that sets standards for voluntary carbon market projects (with its steps summarised in Box 1).[9] It was put out for consultation until November 2024, with Verra expecting publication by the end of 2024 or early 2025.

In common with all carbon credit methodologies, the draft methodology sets out how projects will define their scope, demonstrate their climate impact and be monitored once operational.

The methodology also contains numerous "applicability conditions" to ensure that the underlying project contributes to a just transition. These include requirements to draw up a just transition plan, covering stakeholder identification and consultation, a description of how that plan will mitigate loss of work, how it will be implemented and governed, and the specifics of costs and funding. It also contains detailed requirements regarding the monitoring of just transition impacts and outcomes (see Box 1).

9. Verified Carbon Standard (2024) M0233 Accelerated retirement of coal-fired power plants using a just transition. Draft version 1.0

Box 1. Proposed steps for developing a just transition plan: requirements set out in the 'accelerated retirement' methodology

i. Stakeholder mapping: to identify relevant stakeholders and assess their vulnerability. These could include direct and indirect workers, businesses (such as micro, small and medium-sized enterprises), the local community and local government. Key factors include gender, age, ethnicity, and socioeconomic status.

ii. Communication strategy: to lay out strategy for information dissemination, dialogue and seeking feedback with stakeholders, with timelines and highlighting of stakeholder rights.

iii. Options to mitigate impacts: including severance payments, early retirement, alternative employment, unemployment benefit, retraining, compensation and support for job seeking, as well as a process to build consensus (including mediation where needed).

iv. Budgeting: to cover the cost of consultation, option development and implementation plus sources of funding including from government, philanthropy, capital markets (such as bonds) and a minimum of 2% of carbon market revenues.

v. Monitoring and review: of just transition indicators including stakeholder consultation details, financial estimates and the number of people benefitting from payments and support – in addition to environmental performance.

Source: Verified Carbon Standard (VCS), 2024; methodology submitted by South Pole Carbon Asset Management Ltd., Rocky Mountain Institute, Climate Policy Initiative, Global Energy Alliance for People and Planet and The Rockefeller Foundation.

"The approach we have taken is very comprehensive," based on extensive consultation with development banks, labour advocates, potential credit buyers and other experts, says Francisco Koch, the technical director at South Pole Carbon Asset Management in Zurich, the carbon asset developer and climate consultancy which led the development of the methodology. "I would say it's very robust." He adds, to ensure its integrity, the methodology is also just transition results-based. "It's not sufficient to state in the methodology that a just transition plan must be in place. [Developers will have to] carry out the monitoring and reporting needed to ensure that the commitments they have entered into with stakeholders are actually delivered at the end of the day, and verified by a third party" before any credits can be issued.

Potential buyers will expect high levels of social integrity, Koch says. However, he adds that buyers consulted about the methodology are generally less familiar with just transition provisions than those governing the methodology's carbon accounting elements. "Buyers are completely convinced that an energy transition has to be just... this is non-negotiable. However, there is less clarity in terms of what to expect from an actual just transition plan when carbon finance is used to enable a coal plant to be retired early." The methodology aims to shed light on what is deemed necessary to ensure that early coal power plant retirement results not only in a clean energy transition but also a just one.

As a first-of-its-kind methodology, several elements have generated debate. One is related to its scope. The methodology is focused on impacts around the plant, including directly and indirectly workers and communities, rather than regional or systemic impacts that could accompany coal plant closures, particularly if multiple closures happened in the same region. Regional just transition plans are not required in the methodology, as the methodology tries to balance what is within a developer's control and ability to manage, and impacts that are more appropriately managed by governments, according to its authors.

For that reason, the methodology excludes coal-mouth plants. While most coal plants buy their fuel from the market, coal-mouth plants often directly support the nearby mine. The closure of such plants "would have a very profound and direct impact on the local community," says Curtin. He says the methodology partners may well come back and produce a suite of methodologies but decided that the first iteration should address "the easiest cases".

Some commentators also raised concerns around governance, and who would take responsibility for allocating and overseeing the use of just transition funds. The project developer would not likely be in the right position to do so, but there may not be the right bodies within local communities to take on that role.

Meanwhile, some observers have questioned whether some of the methodology's monitoring criteria may be too strict to be applicable in public. The ADB's just transition specialist Swati Dsouza notes that it requires that all compensation payments are disclosed. "This is likely to be sensitive transaction information which we may not be in a position to share in its entirety with all stakeholders," she says.

Overall, however, the methodology partners sought to set out an approach to the just transition elements that "we hope people find comprehensive," Curtin says, "and we've had a lot of positive feedback on that." But he is conscious of what is at stake. "The just transition aspect is so enormously fundamental and important to what we're doing ... that I think if we get this wrong once anywhere, it will probably not work again, anywhere else," he says.

Getting the transaction over the line

Although considerable work has gone into the proposed sale of transition credits, the transaction is far from guaranteed. There are two immediate preconditions that ACEN needs to meet, says Francia. The first is an agreement under Article 6 of the Paris Agreement between the Philippines and Singapore, and the second is "adequate demand at the right price" from buyers.

Article 6 relates to international carbon trading. It enables emissions reductions made in one country to be transferred to the national emissions inventory of a second country – ensuring that the national-level carbon accounting adds up. In August 2024 the Philippines and Singapore signed a memorandum of understanding to work towards such an agreement.[10]

Singapore is a key source of potential demand for ACEN's transition credits. The city state has a carbon tax, currently at S$25 (US$19) per tonne of CO_2 equivalent, rising to S$50–80 by 2030. Emitters within the city state are permitted to buy international offsets equivalent to 5% of the emissions target. This equates to around 50 Mt/CO_2e of potential annual demand.

Given the Monetary Authority of Singapore's promotion of the concept of the transition credits, Francia is hoping to see some demand from the country's government and corporate emitters for the credits,

10. Ministry of Trade and Industry Singapore (2024) Singapore and the Philippines sign Memorandum of Understanding to collaborate on Article 6 to accelerate climate action. Press release, 15 August. Singapore: Ministry of Trade and Industry Singapore.

which he expects to be priced at the lower end of Singapore's likely carbon tax rate. "We believe, based on very preliminary estimates, that the cost of the credits will fall within the range of the Singapore carbon tax," he says.

Curtin adds that Singapore is "really coming out of the blocks" in support of transition credits, and he says that its National Climate Change Secretariat has indicated interest in the project.

However, the current headwinds facing the voluntary carbon market is dampening corporate demand, says Francia. He adds that potential corporate buyers are currently more interested in 'insetting' – that is, sourcing carbon offsets from within their own value chains. The challenge here is that few Western companies have a manufacturing presence in the Philippines, he notes.

Francia is confident that the high environmental and social integrity of the credits will convince some large companies to sign up, once the methodology is approved – which he expects to happen in early 2025. He adds that the company is "in discussions with a number of sovereigns ... The ideal outcome is to get a few sovereigns and a few corporate buyers."

The credits would be considered as high quality by the marketplace, in Francia's view. Chitra Priambodo, senior energy specialist at the ADB, agrees, assuming that the methodology's current criteria are included in the final version. "These may be seen as a high-integrity class of carbon credit, with a premium price attached, if the just transition elements are incorporated," she says, noting that these are likely to appeal to ESG-oriented buyers.

Demonstrating 'additionality' – that the carbon credits are funding an activity that would not have happened without this financing – is also an important aspect of that quality, says Lindsey Hibberd, associate director at the Carbon Trust and engagement lead for the Coal Asset Transition Accelerator (CATA). "ACEN has already used re-financing options to commit to bringing forward the retirement of the plant to 2040. This previous work helps evidence how carbon credits could play an additional role in moving this retirement date further forward still."

Further assurance could come through a sovereign purchase, she adds. Having a sovereign buyer in place via Article 6.2 provides "a number of safeguards", including that carbon credits sold to private buyers do not double-count emissions reductions that the country will claim under its Nationally Determined Contribution.

In addition, Article 6 agreements require that transactions support sustainable development. "It's great to see that sustainable development is a core part of emerging quality standards for the carbon market," Hibberd says. It is included as a Core Carbon Principle by the Voluntary Carbon Market's Integrity Council in terms of both safeguards and positive impact; it is also a requirement of transactions under Article 6. "Just transition naturally falls within this. Given the challenges of the potential social consequences of coal transition, these requirements offer reassurance to buyers that projects will have appropriate safeguards to protect local communities, alongside reducing global emissions," she adds.

The proposed methodology specifies that actions to ensure 'no net harm' from coal plant closure should not be considered sustainable development contributions, although additional jobs created in renewable energy plants, or the provision of healthcare facilities for local communities, funded with transition credit revenues, for example, could be.

The demonstration effect

Several transition credit pilots are underway across the region. The ADB is working with the Philippines government on a similar transaction to close a coal plant in Mindanao.

The Rockefeller Foundation is hoping to see 50 to 60 transactions by 2030. "The key to unlock them at the moment is demand," says Curtin. "What we're trying to do, at the highest level, is create a modality and a mechanism for countries and companies to engage in the fundamental climate challenge, which is power sector decarbonisation in developing countries. If we can't create that modality, we don't see any other pathway to solving this problem."

Francia sees a potential business opportunity for ACEN, or for a spin-off venture. The company will earn commercial returns from any transaction that repurchases and retires SLTEC using carbon credits. "Will we make a return on the equity? Yes, we will, we're not shy about that, but it's a reasonable return," he says. Hernandez at the ITUC argues that employees should share in any profits made. "The company should go beyond the just transition measures that have already been identified, such as retirement, retraining and reskilling ... and consider some sort of profit-sharing scheme that would be beneficial for the workers."

Francia concludes that, if the transaction is successful, he can see potential to use the know-how acquired to pursue other projects across the region, potentially as a platform independent of ACEN. "It would be a shame if all we did was this one project."

Lessons learned: observations from Nick Robins, Executive Director of the Just Transition Finance Lab

Photo: Chris Watt Photography

The early retirement of coal-fired power plants in Asia will be critical to averting climate catastrophe. The economics of these plants are such that we need to find substantial new sources of revenue to incentivise their retirement. Advocates of carbon markets argue that they hold great potential, and the transition credit initiative that ACEN and others in the region are undertaking presents interesting work in progress.

ACEN has yet to close its transition credits transaction. Voluntary carbon markets have faced serious questions around their environmental integrity. It remains to be seen whether actors like ACEN, supported by influential governments, such as that of Singapore, can address those questions to the satisfaction of buyers regarding their social impacts, as well.

It also remains to be seen what affected workers and communities might want out of this process, in terms of distributional justice, procedural justice and perhaps also restorative justice. The transition credit methodology has substantive just transition provisions, but they could be enhanced further. For example, it does not include 'decent work' provisions for the new renewable assets. Its provisions for stakeholder consultation are process-orientated, and it is unclear whether they would result in real negotiations between companies and stakeholders, and the co-creation of just transition plans.

ACEN, its partners and other parties pursuing transaction credits must do the work to ensure that these consultation provisions are enacted on the ground with integrity and with meaningful involvement of local stakeholders to move towards a model of co-creation.

Just transitions rest on three pillars: maximising socioeconomic opportunity; minimising and managing socioeconomic risks; and ensuring dialogue and participation. ACEN's proposed just transition of its SLTEC plant addresses the second and third of these, but it does not make explicit – with the information provided by the company thus far – what socioeconomic opportunity it is offering for affected workers and communities.

We note that the just transition elements account for a small fraction of the overall transition credits cashflows. At present, there are few benchmarks in terms of the cost of the social dimension of just transition interventions. We recognise that such transactions, if they are to be widely replicated, must make commercial sense. But there is also scope for the just transition process to go beyond 'doing no harm' and provision of positive environmental impact delivered by new renewables capacity. Transition credit revenues could also be harnessed to provide transformational outcomes that tackle structural issues of poverty and inequality in areas going through coal-fired phase-out. Doing this would enhance credibility and likely increase their attractiveness to government and private sector buyers alike.

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