METHODOLOGY ASSESSMENT REPORT FOR ACCELERATED RETIREMENT OF COAL-FIRED POWER PLANTS USING A JUST TRANSITION

Document Prepared by Earthood Services Limited

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Methodology Title	Accelerated Retirement of Coal-Fired Power Plants Using A Just Transition
Version	1.0
Methodology Category	Methodology: Yes
	Methodology Revision: No
	Module: Yes
	Tool: No
Sectoral Scope(s)	01. Energy Industries
Report Title	Methodology Assessment Report for Accelerated Retirement Of Coal-Fired Power Plants Using A Just Transition
Report Version	1.2

Client	South Pole Carbon Asset Management Limited
Pages	81
Date of Issue	21-03-2025
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Summary

Verra through South Pole Carbon Asset Management Limited. has contracted Earthood Services Limited (Earthood), a Validation and Verification Body, to conduct the validation assessment for the proposed methodology titled “Accelerated Retirement Of Coal-Fired Power Plants Using A Just Transition” and the proposed module “Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-Fired Power Plants”, prepared by Rockefeller Foundation-Led Coal to Clean Credit Initiative. This methodology is globally applicable to project activities that reduce GHG emissions through the accelerated retirement of grid connected CFPPs and replacing electricity with paired renewable electricity. The proposed Methodology belongs to sectoral scope 1 (Energy Industries).

The purpose of methodology assessment was to conduct an independent assessment of the proposed methodology titled “Accelerated Retirement Of Coal-Fired Power Plants Using A Just Transition” and the proposed module “Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-

Fired Power Plants", to determine whether it complied with the VCS requirements/03/04/, including the appropriateness of the Emission Reduction claims and the planned design for their monitoring.

The assessment scope included:

1. Structure and clarity of methodology
2. GHG quantification
3. Baseline date assessment
4. Additionality assessment and
5. Verifiability

Methodology Assessment was performed using a combination of document review, and interactions with methodology developer. The proposed methodology was evaluated in accordance with VCS requirements.

06 clarification requests (CLs) and 05 corrective action requests (CARs) were raised and successfully resolved as findings throughout the Methodology Assessment process. Earthood Services Limited audit team's conclusions from the Methodology Assessment process have been closed.

There were no uncertainties identified during the assessment of methodology and the module.

A team composed of technical experts and methodology experts carried out the assessment and referred to VCS requirements/03/04/ for the assessment, along with the use of standard auditing techniques, methodological development requirements, tools, guidelines, etc. wherever applicable.

The VVB can confirm that:

- The proposed methodology complies with VCS' methodology requirements/03/04/;
- The methodology form for its applicable version has been appropriately filled for all relevant sections.
- The application of tools, guidelines, and other applicable document/03/04/ (as mentioned in the methodology) is not altered
- All relevant information has been consistently applied within the applicable sections in the methodology document.

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1 INTRODUCTION

1.1 Objective

Verra through South Pole Carbon Asset Management Limited contracted Earthood Services Limited to conduct an independent assessment of the proposed methodology "Accelerated Retirement of Coal-Fired Power Plants Using A Just Transition" and the proposed module "Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-Fired Power Plants" to determine its compliance with the requirements of the Verified Carbon Standard (VCS).

The scope of the VVB assessment focuses exclusively on:

1. Structure and clarity of methodology: Assessment of whether the methodology is written in a clear, logical, concise, and precise manner that will enable project developers to implement projects consistently and transparently report project results.

2. GHG quantification: Assessment of whether the approach for calculating baseline emissions, project emissions, leakage emissions, and net emission reductions is appropriate, adequate, conservative and in conformance with VCS Methodology Requirements and Program rules and requirements. This must also include an assessment of the consistency of the equations and parameters with the GHG sources in the baseline and project scenario and the monitoring parameters.

3. Baseline date assessment: Assessment of whether the approach to determine the baseline date in the associated VCS Module for Determining the Baseline Scenario Retirement Date for a Coal-Fired Power Plant/02/ is effective and appropriate. The module provides procedures and requirements to determine the retirement date of a coal-fired power plant in the baseline scenario. The assessment evaluates the procedures and requirements to determine the baseline date and the relevance and accuracy of the data sources.

4. Additionality assessment: Assessment of whether the proposed approach for demonstrating additionality, specifically the economic analysis of operating versus decommissioning CFPPs, is appropriate, including:

   a) Robustness of the framework for evaluating the economics of CFPPs,

   b) The assumptions and parameters used in the economic analysis, and

   c) The relevance and reliability of the data sources and inputs.

5. Verifiability: Assessment of whether the methodology is sufficiently clear and specific to require project developers to transparently report project results that can pass validation and verification with high confidence.

1.2 Summary Description of the Methodology

The assessed methodology aims to quantify emission reductions associated with the accelerated retirement of coal-fired power plants (CFPPs) with partial or full replacement of electricity generated by the CFPP with renewable energy (RE). The methodology ensures that the accelerated retirement of the CFPP is accompanied by a comprehensive, just transition (JT) plan and, subsequently, that this plan is implemented. The JT mitigates the potential negative impacts of accelerated retirement of CFPPs, such as loss of livelihoods of workers, their households, contractors, and communities.

The methodology falls within Sectoral Scope 1: Energy Industries of the Verified Carbon Standard (VCS) Program.

The globally applicable. The proposed methodology includes improvements to represent current best practices, streamlined monitoring approaches, and reflect the latest coal fired power generation technologies, baseline fuels, and quantification methods.

The typical baseline scenario including the GHG sources are defined according to the technologies, practices, fuel types and fuel consumption patterns that will be replaced by the project technology in the defined target population. The baseline scenario, GHG sources, additionality, monitoring plan, sampling plan and all other aspects of the methodology are assessed below in this report.

2 ASSESSMENT APPROACH

2.1 Method and Criteria

The Methodology Assessment, from Contract Review to Assessment Report, was conducted using VVB's internal procedures. The proposed methodology and module was checked against the requirements of the VCS Program Guide v4.4/20/, VCS Standard v4.7/03/ and VCS Methodology requirements v4.4/04/.

The Methodology Assessment process is conducted as per Earthood's internal ISO 14065 Quality Manual and in accordance with criteria laid down by Verra. It includes the following steps:

- contract with methodology developer for the scope and appointment of assessment team and technical review team.
- completeness check of Verra methodology form.
- desk review of methodology in accordance with the tools & requirements and mentioned references/statistics wherever applicable.

- reporting and closure of findings (CARs/CLs/FARs) and preparation of draft assessment report.
- independent technical review of the draft report and final/revised documentation (e.g., VCS methodology form and VCS assessment report).
- issuance of the final assessment report to contracted methodology developer (or authorized representatives).

2.2 Document Review

The proposed methodology and module assessment is performed primarily as a document review of the documents submitted at various stages of assessments. The review is performed by assessment team using dedicated protocols. The assessment team cross checks the information provided in the documents (filled-in methodology form)/01/02/ and information from sources other than those used by the methodology developer, if available, and conducts independent background investigations. VVB has conducted a desk review as under:

- A review of the data and information presented to verify their completeness.
- A review of the revisions made to the methodology, including referenced tool(s), referenced sources and, where applicable, the quality assurance and quality control procedures. An evaluation of revisions made in terms of their influence on the quantification of calculations.

2.3 Interviews

No site visit was conducted for this assessment. However, the assessment included interviews email interactions with representatives of South Pole Carbon Asset Management Limited.:

S.No.	Name	Organisation	Topics Covered
1.	Chetan Aggarwal	South Pole Carbon Asset Management Ltd / Climate Spring.	Methodology applicability, Applicability conditions, and Emission Reduction quantification rationale, Module baseline retirement date determination procedures and additionality, Monitoring plan
2.	Micaela Zabalo	South Pole Carbon Asset Management Ltd	
3.	Francisco Koch	South Pole Carbon Asset Management Ltd .	

2.4 Assessment Team

The names, roles and affiliations relevant to the methodology assessment team are as follows:

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1	Team Leader	IR	Amlani	Jinesh	Central Office
2	Technical Expert (TA 1.2)	IR	Amlani	Jinesh	Central Office
3	Technical Subject Matter Expert	EI	Gupta	Rakesh	External Resource
4	Validator	IR	Guleria	Shifali	Central Office
5	Validator	IR	Varshney	Divij	Central Office
6	Technical reviewer	IR	Singh	Ranjan	Central Office
7	T.A. (1.2) to Technical Reviewer	IR	Singh	Ranjan	Central Office

Further, the Competence statement of each team member, containing summary of their qualifications/expertise/experience, is included in Appendix 3.

2.5 Resolution of Findings

As an outcome of the assessment process, the team can raise different types of findings:

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

Where a non-conformance arises the team leader shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- The methodology developer has made mistakes that will influence the ability of the methodology to allow projects to achieve real, measurable additional emission reductions.
- The VCS requirements have not been met.
- There is a risk that emission reductions cannot be monitored or calculated.

The assessment process may be halted until this information has been made available to the team leader's satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

During the methodology assessment process, total 06 CARs, 05 CLs were raised and resolved successfully. The list of CARs/CLs/FARs raised and the response provided, the mean of validation, reasons for their closure and references to correction in the relevant documents are provided in Appendix 4 of this report.

3 ASSESSMENT FINDINGS

The proposed methodology has been designed to provide the criteria and procedures for quantifying emission reductions associated with the accelerated retirement of coal-fired power plants (CFPPs) with partial or full replacement of electricity generated by the CFPP with renewable energy (RE). The methodology ensures that the accelerated retirement of the CFPP is accompanied by a comprehensive, just transition (JT) plan and, subsequently, that the plan is implemented. The methodology developer has also proposed a module for the combined baseline and additionality assessment of the project activities using the proposed methodology.

As per the desk review, observations, and evidence provided, it was possible to assess them, in general, the proposed methodology would result in early retirement of the coal-fired power plants.

The methodology is found to be in compliance with the principles set out in the VCS methodology requirements and other VCS rules and requirements. This new methodology provides guidelines for the quantification of emission reductions due to early retirement of CFPPs, while adhering to the principles of VCS (relevance, completeness, consistency, accuracy, transparency and conservativeness). Applicable VCS approved tools are appropriately cited for determining project significance, baseline, additionality and risk. The methodology assessment addressed specific issues that arose in the methodology, which are pertinent to the above-mentioned principles set forth by the VCS Standard.

3.1 Relationship to Approved or Pending Methodologies

Methodology	Title	GHG Program	Comments
ACM0002 v22.0	Grid-connected Electricity Generation from Renewable Sources/21/	CDM	The methodology provides a framework for the quantification of GHG emission reductions by the implementation of a greenfield renewable energy power plant or Retrofitting, rehabilitation (or refurbishment), replacement or capacity addition of an existing renewable energy power plant. The methodology doesn't provide any framework for the retirement of the existing CFPPs. The methodology could not be sufficiently modified to suit the requirements therefore the proposal of the new methodology is found to be appropriate.
AM0019 v2.0	Renewable Energy Projects Replacing Part of the Electricity Production of One Single Fossil Fuel Fired Power Plant That Stands Alone or Supplies to a Grid, Excluding Biomass Projects/22/	CDM	The methodology provides the framework for the implementation and operation of the renewable energy sources that displace electricity produced from a specific fossil fuel plant. The methodology doesn't provide any framework for the retirement of the existing CFPPs. The methodology could not be sufficiently modified to suit the requirements therefore the proposal of the new methodology is found to be appropriate.

The VVB has checked the following registries on similar methodologies:

Registry
Climate Action Reserve /07/

UNFCCC Clean Development mechanism/08/
Gold Standard for Global Goals (GS4GG) /09/
Global Carbon Council (GCC) /10/
Verified Carbon Standard (VCS) /11/

As stated above, the proposed methodology includes several updates and changes that reflect current best practices of project design and implementation. It also incorporates streamlined baseline, additionality and monitoring approaches such as determination of procedures and requirements to determine the retirement date of a coal-fired power plant in the baseline scenario, requirements and criteria for Just transition (JT) for the stakeholders directly or indirectly impacted. Moreover, it consolidates elements of existing methodologies currently approved for use in the VCS Program, including the following:

- CDM 2022. ACM0002 Grid-connected Electricity Generation from Renewable Sources, Version 22.0/21/
- CDM. 2006. AM0019 Renewable Energy Projects Replacing Part of the Electricity Production of One Single Fossil Fuel Fired Power Plant That Stands Alone or Supplies to a Grid, Excluding Biomass Projects, Version 2.0/22/

As per VVB's assessment, no other similar methodology has been identified and the list of all similar methodologies as per provided new methodology is considered complete and no other similar methodology could have been reasonably revised to meet the objective of the current Methodology, and thus, the current Methodology is justified.

3.2 Stakeholder Comments

The project has been published by Verra for first public commenting from December 4, 2023, to January 16, 2024. A total of 68 comments were received during the first public stakeholder consultation for the methodology/05/. Thereafter, the project has been published by Verra for second public commenting from October 17, 2024 to November 20,2024. A total of 31 comments were received during the second public stakeholder consultation for the methodology. Stakeholders provided highly detailed and specific feedback. Based on the comments received, the methodology has been updated where applicable. All comments have been documented in Appendix 1, and each comment has been considered and addressed with a response by the methodology developer. During the assessment of the methodology, all comments were reviewed, and responses not found satisfactory were incorporated into findings in the assessment report. Overall, all stakeholder comments have been thoroughly considered and appropriately addressed.

3.3 Structure and Clarity of Methodology

The methodology is drafted with a clear, concise and logical approach, bearing all the relevant sections applicable as per the methodology form template/06/. It was assessed that:

- The methodology template instructions/06/ have been adhered to, and methodology form also fulfils requirements and criteria laid in the appropriate sections within the form.
- The terminologies used in the methodology follows VCS program requirements and GHG accounting generally.
- The applicable keywords have been used appropriately and consistently, denoting requirements, recommendations and permissible or allowable options, wherever applicable.
- The criteria and procedures are drafted in an easy-to-understand manner and can be applied readily and consistently by project proponents.
- The revisions do not introduce any ambiguity which may lead to lack of clarity in undertaking audits by the project activity(ies).

The clarity of content, its applicability and continuity in terms of use with other similar tools is observed in the methodology. The structure of methodology is well defined, maintaining consistency with the methodology form.

3.4 Definitions

The following key terms and their definitions have been duly incorporated in the proposed methodology/01/:

Term	Definition	Assessment
Accelerated retirement	The ceasing of operations, decommissioning of equipment, and remediation of a site earlier than would have occurred in the absence of project activities	The VVB concludes that that no key term has been skimped over, and that terms all have been defined clearly and appropriately, with no room for misinterpretation. The terms have been listed in alphabetical order, and it has been ensured that there is no overlap with terminologies already defined under the VCS program. The definitions
Baseline retirement date	The date on which the coal-fired power plant would have been retired due to technical, regulatory, or economic drivers, in the absence of project activities	

Coal-fired power plant (CFPP)	An installation that generates electric power from coal combustion. Several power units at one site may comprise one power plant, whereas a power unit is characterized by the fact that it can operate independently from other power units at the same site. A single unit of the power plant may also be referred to as a CFPP. Plants operating as combined heat and power plants, and plants with mixed fuels (e.g., biomass, waste) are not included.	are found to be in line with the VCS Methodology Requirements/04/.
Deregulated electricity market	An electricity market in which market participants other than the system operator own the power plants (independent power producers) and the transmission lines. In a deregulated market, the independent power producers may sell the electricity to the wholesale market or to an off-taker or retail energy suppliers that provide electricity to end customers. Such markets allow for price competition and choice of electricity supplier. This may also be referred to as a liberalized electricity market.	
Grid	The electricity system that connects the project coal-fired power plant to other power plants and consumers through transmission and	

	distribution lines in the host country. The electricity system extent is limited to that which is managed by a single balancing pool operator or system operator. It does not extend beyond the national jurisdictional border in which the project activity occurs.	
Independent power producer (IPP)	A legal entity or instrumentality that owns facilities for the generation of electricity and sells electricity to an electric utility under a power purchase agreement.	
Mothballed power plant	A CFPP that either has been deactivated/put into an inactive state could return to operation.	
Mine-mouth power plant	A coal-fired power plant that is constructed and operates near to a coal mine, where the coal-fired power plant is the anchor buyer of the coal from the mine and the coal is transported directly to the coal-fired power plant (e.g., via a conveyor belt)	
Off-taker	An entity that has a power purchase agreement with the independent power producer for all or part of the electricity produced, for self-consumption or sale to another consumer. In the case of a regulated market, only the system operator acts as the off-taker.	

Paired Renewable Energy (Paired RE)	The grid connected Renewable Energy (RE) that is greenfield (being constructed and operated that was not previously planned) or is being brought forward from its original planned construction and operational date due to accelerated decommissioning of the project CFPP. An RE is considered paired when it demonstrates pairing through one of the pairing scenarios as established in section 4.2 of the methodology.	
Power purchase agreement (PPA)	A contract between an independent power producer and an off-taker. In this methodology, PPAs refer to agreements in which the off-taker is a utility or electricity system operator or a distribution company or power trader. In this methodology, a PPA is considered long-term where the term of the PPA is at least 20 years.	
Regulated electricity market	An electricity market with an integrated utility company that is the system operator, owns the power system transmission and distribution (including all associated infrastructure), and generates, and/or purchases wholesale electricity from independent power producers to sell to customers. The market is overseen by a public regulator with the authority	

	and mandate to ensure consumers have access to reliable electricity at a reasonable cost.	
Regulated utility (electricity)	An integrated utility company that is the system operator, owns the power system transmission and distribution (including all associated infrastructure), and generates and purchases wholesale electricity from independent power producers to sell to customers. A regulated utility is overseen by a public regulator with rate-making authority, mandated to provide consumers with access to reliable electricity at a reasonable cost.	
System operator	Entity responsible for day-to-day electricity grid management and operations, including scheduling and dispatching electricity from power plants while coordinating use of the transmission system. Irrespective of the nature and structure of the electricity market, the system operator typically remains independent. In a regulated market, the system operator acts as the single buyer (off-taker) of electricity from independent power producers and provides electricity to different consumers. In a deregulated market, the	

	system operator ensures non-discriminatory access to the transmission system for independent power producers to provide electricity to their respective off-takers and consumers.	

The following key terms and their definitions have been duly incorporated in the proposed module/02/:

Term	Definition	Assessment
Accelerated depreciation	A utility finance tool that accelerates the depreciation schedule of a coal-fired power plant and therefore accelerates the return on and recovery of capital invested on its rate base over a shorter period.	The VVB concludes that that no key term has been skimped over, and that terms all have been defined clearly and appropriately, with no room for misinterpretation. The terms have been listed in alphabetical order, and it has been ensured that there is no overlap with terminologies already defined under the VCS program. The definitions are found to be in line with the VCS Methodology Requirements/04/.
Asset-level phaseout plan	A documented and approved plan to retire coal-fired power plants (and other fossil fuel power plants) in a jurisdiction (national or subnational) where the plan specifies the retirement date of each power plant. Both the jurisdictional government and independent power producer (IPP) can have an asset-level phaseout plan. However, only government plans are considered legally binding.	
Coal transition mechanism (CTM)	Financial products and services designed to facilitate the managed transition of a coal-fired power plant that has remaining fair value to its owners, by changing the underlying cost of capital of a	

	coal-fired power plant or its revenues to deliver necessary returns. Carbon market mechanisms leveraging revenue generated from carbon credits, including compliance markets, voluntary carbon markets, and Article 6 are excluded.	
Jurisdictional level phaseout plan	A documented and approved commitment by the jurisdictional (national or subnational) government that specifies the phaseout date for all coal-fired power plants in the jurisdiction, without specifying individual retirement dates. This overall phaseout date is considered legally binding for all coal-fired power plants within the jurisdiction.	
Regulatory asset	A finance tool that allows a utility to continue to include an asset in its rate base, and therefore continue to realize a return on and recovery of capital on the asset, even after the asset has ceased operation	
Required revenues	Annual revenue that a regulated utility must earn to provide adequate service to its customers and the allowed return for its shareholders	

3.5 Applicability Conditions

This methodology applies to project activities that introduces accelerated retirement of grid-connected CFPPs with partial or full replacement of electricity generated by CFPP accompanied by a comprehensive, just transition (JT) plan.

During the methodology assessment process, the assessment team ensured the applicability conditions were appropriate for the activities targeted by the methodology. Quantification procedures required by the methodology adequately target the relevant applicability conditions. The applicability conditions appropriately specify relevant requirements to individual projects. The assessment determined the applicability conditions contained within the methodology are appropriate, adequate and in compliance with the VCS methodology requirements/04/. Issues identified during the assessment were correctly addressed by the methodology proponent.

Further, the assessment team determined the applicability conditions provide sufficient clarity to projects determining if their activities are or are not eligible under the methodology. The applicability conditions address environmental integrity and practical considerations, where relevant. The following summarizes applicability conditions as written, changes made during the revision of the methodology, and the final evaluation of those changes during the assessment:

Applicability conditions for CFPP Retirement:

S.No.	Applicability Criteria	Assessment
1.	CFPP construction began prior to 31 December 2021. This threshold intends to mitigate the moral hazard that new CFPPs may be developed with the expectation that carbon finance would be available in the future to enable their retirement, i.e., preventing perverse incentives.	The applicability condition provides a clear identification for the eligible CFPPs that can be considered under project activity, while mitigating the ambiguity for new CFPPs being developed with the expectation of carbon finance in the future. The condition is written in clear and concise manner. Thus, the applicability condition is found to be appropriate and within the scope of methodology.
2.	At the time of validation, the latest version of its Nationally Determined Contribution (NDC), the host country must have commitments that include either or a combination of: a. Power sector wide decarbonization targets. This may be in the form of absolute target or intensity based.	The condition is found to be necessary to ensure whether host country has any obligations for the retirement of the CFPPs or committing to develop a strategy for the same. The condition is written in clear and concise manner. Thus, the applicability condition is

	b. Increase in share of renewable energy. This may be in the form of absolute increase in RE capacity or percentage of RE in the grid	found to be appropriate and within the scope of methodology.
3.	CFPPs may demonstrate that the host country has or commits in the long term to develop a strategy for a pathway to achieve net zero by mid-century	The condition is found to be necessary to ensure whether host country has any obligations for the retirement of the CFPPs or committing to develop a strategy for the same. The condition is written in clear and concise manner. Thus, the applicability condition is found to be appropriate and within the scope of methodology.
4.	The CFPP is connected to the grid	The condition is written to ensure that only the CFPPs connected to the grid (that are within the scope of this methodology) will be included in the project activity.
5.	Where in a regulated electricity market, the CFPP is owned by either a regulated utility or an independent power producer (IPP).	The condition is written to ensure that CFPPs subject to this methodology are owned by regulated utilities or IPPs in a structured electricity market allows for effective regulatory oversight and structured transition planning. Thus, the applicability condition is found to be appropriate and within the scope of methodology.
6.	The CFPP has a single long-term (at least 20 years) power purchase agreement (PPA) with: a. A system operator or a regulated utility off-taker in a regulated electricity market. b. An eligible counterparty with obligations as a load-serving entity, such as a distribution company, power trader, government agency, or power retailer in a deregulated electricity market	The condition requiring a single long-term (at least 20 years) PPA with a system operator, regulated utility off-taker, or eligible counterparty has been validated and found to be clear, concise, and effective. This requirement ensures financial stability, aligns with market structures, and supports a structured transition within the methodology.

7.	The CFPP has demonstrated utilization (i.e., positive capacity factor) for the five most recent years at the time of validation and prior to the accelerated retirement of the CFPP.	The condition requiring demonstrated utilization with a positive capacity factor over five years has been validated and found to be clear, concise, and effective. This condition ensures that the CFPP has been actively contributing to electricity generation and is not already in a state of underutilization or economic non-viability prior to its planned retirement. The intent is to ensure that the methodology supports the transition of operational CFPPs rather than those already on a path to decommissioning due to declining utilization.
8.	The CFPP has positive Net Income After Tax each year over the last three years at the time of project validation and prior to the accelerated retirement of the CFPP, and positive fair value at the time of project validation, determined using a methodology that meets International Financial Reporting Standards for accounting (e.g., IFRS 13 Fair Value Measurement).	The condition requiring positive NIAT over three years and positive fair value at project validation has been validated and found to be clear, concise, and effective. This requirement ensures that CFPPs included in the methodology are financially viable, preventing the misuse of carbon finance for plants that are already economically unviable.
9.	Where the CFPP is owned by a state-owned utility company, both the utility and the host country have a commitment to no new coal power plants. This includes increasing the capacity of the existing CFPPs. The commitment must be publicly available at the time of validation.	The condition requiring commitment of the no new coal power plants by the state-owned utility company (both the utility and the host country) is found to be clear, concise and effective. The condition ensures that no new coal power plants are implemented by the state utility and seeking the benefits of carbon finance with the retirement of already existing CFPPs.
10.	Where the CFPP is owned by an IPP, the IPP has a commitment to not build any new coal power plants. This includes increasing the	The condition requiring commitment of the no new coal power plants by the IPP is found to be clear, concise and

	capacity of the existing CFPPs under the control of the IPP. The commitment includes all members of an IPP consortium and their parent or holding companies. The commitment must be publicly available at the time of validation. Where an IPP consortium comprises of a state-owned company, such as in case of Public Private Partnership (PPP) model, the host country must also have publicly available no new coal commitment. Where IPP consortium does not consistent of state-owned company, the IPP of may demonstrate that the host country has committed to no new permitting of unabated coal generation plants.	effective. The condition ensures that no new coal power plants are implemented by the IPP and seeking the benefits of carbon finance with the retirement of already existing CFPPs.
11.	The system operator or regulated utility has conducted an assessment of the implications of the accelerated retirement, including a rate impact analysis and reliability assessment, and has confirmed that the accelerated retirement will not have a material negative effect on consumer prices and energy access. This may be demonstrated via a letter obtained from the system operator, utility or distribution company, government entity, as applicable, confirming the above.	The condition requiring as assessment of the implications of the accelerated retirement having a material negative effect on consumer prices and energy access is found to be clear, concise and effective. The condition ensures that the acceleration depreciation should indeed be a just transition and not have any sudden adverse effect on the end consumers.

Applicability conditions for Paired Renewable Energy:

S.No.	Applicability Criteria	Assessment
1.	The project proponent must have a plan for pairing the retired CFPP generation capacity fully or partially with new renewable electricity generation feeding to the grid	The condition is found to be necessary to ensure that the electricity burden from the retired CFPPs will not fall under the other grid connected power plants, and PP has a proper plan to replace the electricity generation from the accelerated retired CFPPs with the renewable energy. Thus, the condition is found to be clear, concise and

		appropriate and within the scope of methodology.
2.	The project proponent must have a plan for pairing a minimum of 40% of the retired CFPP generation capacity with new renewable electricity generation capacity by the end of the initial crediting period prepared and available at the time of validation.	The condition is found to be necessary to ensure that the continuous implementation of the renewable electricity generation takes place to displace the electricity from the retired CFPP. The 40% lower limit ensures at least a minimum level of CFPP electricity replacement by renewable electricity. Thus, the condition is found to be clear, concise and appropriate and within the scope of methodology.
3.	The renewable electricity pairing plan must include a list of renewable electricity plants that are paired to accelerated retirement including: a. name, type, capacity, and location of each renewable electricity power plant, and b. planned commercial operations start date	The condition is found to be necessary to ensure identification of paired RE plants and that the continuous implementation of the new renewable electricity generation takes place to displace the electricity from the retired CFPP. Thus, the condition is found to be clear, concise and appropriate and within the scope of methodology.
4.	The retired CFPP generation capacity will be fully or partially paired with new renewable electricity generation from one or a combination of the following sources: a. Solar power plant with or without battery energy storage systems (BESS) b. On-shore and/or offshore wind power plant with or without BESS c. Hydro power plant d. Geothermal power plant e. Tidal/wave power plant f. Landfill gas power plant	The condition is found to be necessary to not only include but also specify the type of renewable electricity generation that are eligible within the scope of this methodology. Thus, the condition is found to be clear, concise and appropriate and within the scope of methodology.

	g. Biogas power plant, including biogas from wastewater treatment h. Waste-to-energy (WtE) power plant i. Biomass-fired power plant that complies with requirements and procedures established for biomass in the most recent version of CDM ACM0006	
5.	The paired renewable electricity generation capacity available at the project start date represents at least 10% of the retired CFPP generation capacity	The condition is required to ensure the commitment of the implementation of renewable sources along side the accelerated retirement of the CFPP. The condition is found to be clear, concise and appropriate and within the scope of methodology.
6.	Paired biomass-fired power plants must also demonstrate compliance with the requirements and procedures established for biomass in the most recent version of CDM ACM0006: Electricity and heat generation from biomass.	The condition is required for the implementation of the biomass power plants, whose modalities are already laid out in CDM Methodology ACM0006/24/. The condition is thus found to be clear, concise and appropriate and within the scope of methodology.
7.	Pairing of renewable electricity generation must be established through one or a combination of the following pathways: a. Contractual pairing: a new or revised existing CFPP power purchase agreement (PPA) covers new renewable electricity generation capacity. b. Financial pairing: the conditions for refinancing a CFPP for retirement require new renewable electricity generation capacity. c. On-site pairing: new renewable electricity generation capacity is	This conditions specifically lays down the pathways though which it can be established how the pairing of renewable energy should occur. It covers all multiple options that match in line with the broader applicability of the proposed methodology and hence found to be appropriate.

	developed at the CFPP site and utilizes existing grid connection or balance of plant components. d. Regulatory pairing: a regulator approves new renewable electricity generation capacity as an explicit replacement for the retired CFPP generation capacity. e. Counterfactual plans pairing: new renewable electricity generation comes online earlier or at a greater capacity than projected in the currently approved regulatory resource plan of the system operators.	

The methodology is not applicable under the following conditions:

S.No.	Applicability Criteria	Assessment
1.	The CFPP is deactivated or repurposed to continue to combust fossil fuels, including co-firing biomass with coal or gas	The condition is found to be clear, concise and appropriate and within the scope of methodology and required to define, ensuring only decommissioned CFPP are made eligible and not otherwise.
2.	The CFPP is a mine-mouth power plant	The condition is established to ensure that the CFPP to be retired must not be a mine mouth power plant. Thus, the condition is found to be clear, concise and appropriate and within the scope of methodology.
3.	The CFPP is a captive power plant.	The condition is established to ensure that the CFPP to be retired is a grid connected, and not a captive power plant. This condition is reiterated at multiple places in the proposed methodology as well as response to stakeholder comments clarified by the methodology developer that the propose methodology applies only to

		grid connected power plants and not to captive or merchant power plants. Thus, the condition is found to be clear, concise and appropriate and within the scope of methodology.

The proposed module applies to the project activities related to an accelerated retirement of a CFPP using the most recent version of VM00XX Accelerated Retirement of Coal-fired Power Plants Using a Just Transition/02/.

3.6 Project Boundary

The methodology defines the project boundary as the spatial extent of the project boundary encompasses the CFPP to be retired, and where applicable, the emissions from the operation of paired renewable electricity capacity. Significant sources of leakage that must be quantified are all the power plants/units connected to the electricity system (i.e., grid) that would compensate for electricity generation that is not produced by the retired CFPP and is not covered by paired renewable electricity capacity.

The VCS Methodology Requirements/04/ require the methodology establish criteria and procedures for describing the project boundary and identifying and selecting optional carbon pools, e.g., sources, sinks, and reservoirs relevant to the baseline and project scenarios. Procedures to quantify emissions are appropriately included in all required carbon pools. The methodology provides clear criteria and procedures for defining the spatial boundaries of the project. Further the methodology provides a table of corresponding GHG sources, sinks and reservoirs, whether they are included or not and a corresponding justification in section 3.6 of the proposed methodology and are in line with the VCS Methodology requirements/04/:

Source		Gas	Included?	Justification/Explanation
Baseline	Emissions from electricity generation from CFPP	CO_2	Yes	Major source
		CH_4	No	Conservative to exclude
		N_2O	No	Conservative to exclude
		Other	No	N/A
	Emissions from CFPP decommissioning	CO_2	No	Decommissioning of CFPP is the same in baseline and project scenario.
		CH_4	No	Decommissioning of CFPP is the same in baseline and project scenario.
		N_2O	No	Decommissioning of CFPP is the same in baseline and project scenario.

Source		Gas	Included?	Justification/Explanation
		Other	No	Decommissioning of CFPP is the same in baseline and project scenario.
Project	Emissions from electricity production by new renewable sources	CO_2	Yes	To be considered for landfill gas, geothermal, hydro, biomass thermal, wastewater, and waste-to-energy plants. Not to be considered for other eligible renewable electricity sources.
		CH_4	Yes	To be considered for landfill gas, geothermal, hydro, biomass thermal, wastewater, and waste-to-energy plants. Not to be considered for other eligible renewable electricity sources.
		N_2O	No	De minimis
		Other	No	N/A
	Emissions from renewable electricity plant construction	CO_2	No	De minimis
		CH_4	No	De minimis
		N_2O	No	De minimis
		Other	No	De minimis
	Emissions from CFPP decommissioning	CO_2	No	Decommissioning emissions of CFPP same in baseline and project scenario but at different times
		CH_4	No	Decommissioning emissions of CFPP same in baseline and project scenario but at different times
		N_2O	No	Decommissioning emissions of CFPP same in baseline and project scenario but at different times
		Other	No	Decommissioning emissions of CFPP same in baseline and project scenario but at different times
Leakage	Emissions from electricity sourced from the grid	CO_2	Yes	Major source
		CH_4	Yes	Upstream methane emissions considered for gas-fired power plants where incremental gas is burned to compensate for retired CFPP electricity generation

Source		Gas	Included?	Justification/Explanation
		N_2O	No	De minimis
		Other	No	De minimis

The project boundary has been assessed as adequate in the context of the considered typical project activities. All relevant GHG emission sources have been identified, assessed and corresponding justification for inclusion or exclusion has been provided.

The provided figure is a clear and correct as well as appropriate delineation of typical project activities under the methodology.

3.7 Baseline Scenario

A project method is used for identifying alternative baseline scenarios and determining the most plausible scenario.

The baseline scenario is the continued operation of the CFPP until it would have been retired in the absence of carbon revenues generated through project activities (i.e. the baseline retirement date).

Methodology also determines the total crediting period end date for the project activities as follows:

a. The maximum crediting period length permissible in the most recent version of the VCS Standard, measured from the project start date.

b. The baseline retirement date, as determined by the most recent version of VMD00XX Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-fired Power Plants/02/.

c. Where the CFPP is owned by a utility, the date on which the jurisdiction reneges on its no new coal commitment, either explicitly through an announcement or implicitly through the permitting of a new coal plant.

d. Where the CFPP is owned by an IPP, the date on which the IPP reneges on its no new coal commitment, either explicitly through an announcement or implicitly through application for permits for a new coal plant anywhere globally.

To determine the most plausible baseline retirement date for the CFPP, methodology utilizes the module “Combined Baseline and Additionality Assessment for the Accelerated Retirement of Coal-fired Power Plants”/02/.

The baseline retirement date for the CFPP is determined as the earliest of the following applicable criteria:

1. Regulatory CFPP phaseout date: The retirement date is set by existing national or sub-national regulations, commitments, or transition plans. If such a regulatory requirement exists, it takes precedence as the baseline retirement date.

2. End of technical life: The technical life of the CFPP is assessed based on the most recent version of CDM TOOL10 (Tool to Determine the Remaining Technical Life of Equipment)/12/. If this assessment determines an earlier retirement date than other criteria, it will be considered the baseline retirement date.

3. End of long-term power purchase agreement: If the CFPP operates under a long-term PPA, its expiration date is evaluated as a potential retirement date. Extensions executed after 31 December 2023 are not considered, and the original PPA end date must be used. If no renewal or extension is in place, the original end date of the agreement is taken as the baseline retirement date.

4. Committed coal transition mechanism (CTM): The announced retirement date of the CFPP under a CTM is used as the baseline retirement date when either of the following conditions has been met:

    a. Financial closure of a transition mechanism, demonstrated through one of the following:

        i. Transfer of ownership of the CFPP, equity investment, or a full/partial buyout of equity shares.

        ii. Creation of a special purpose vehicle (SPV) or fund for CFPP investment, refinancing, or a new financing agreement that reduces the cost of capital, such as lowering the cost of equity, cost of debt, leverage ratio, or required returns.

    b. Signing of an electricity contract for defined early retirement, such as:

        i. A new PPA or renegotiation of an existing PPA.

        ii. Another contractual agreement specifying early retirement ahead of the CFPP's current PPA term or technical life.

5. Financially attractive retirement: The CFPP's early retirement is deemed financially attractive when replacing coal-generated electricity with renewable electricity results in net cost savings, even after accounting for additional costs such as early PPA termination fees.

The final baseline retirement date is determined by identifying the earliest applicable date among these criteria. This ensures alignment with regulatory mandates, technical feasibility, contractual

obligations, policy commitments, and economic incentives, establishing a robust and justifiable retirement timeline for the CFPP.

VVB concludes that the criteria and procedures for identifying alternative baseline scenarios and determining the most plausible scenario (in this base – baseline scenario retirement date of the CFPP and thus baseline emissions from electricity production) can be expected to result in a baseline scenario that reasonably represents the GHG emissions or removals that would occur in the absence of the project activity. The requirements of section 3.5 of VCS Methodology Requirements/04/ are found to be met. VVB confirms that all the equations regarding the baseline retirement date have been thoroughly assessed and are found to be appropriate and comprehensive to calculate all most plausible baseline retirement date and eventually the baseline emissions.

3.8 Additionality

The proposed methodology/01/ utilizes the proposed module/02/ for the demonstration of additionality. The proposed module used the project method to establish a procedure for the demonstration of additionality. The project proponent must apply met the following conditions:

1. Regulatory Surplus

The project proponent must demonstrate regulatory surplus in accordance with the rules and requirements regarding regulatory surplus set out in the latest version of the VCS Standard and VCS Methodology Requirements/03/04/.

2. Implementation barrier – Investment Barrier

The project proponent must identify specifically investment barriers that would prevent the implementation of the project. The conditions very specifically defines that only the projects that retire CFPP before the baseline retirement date as per Section 5 of the module shall demonstrate that these projects demonstrate an investment barrier due to NPV gap calculated via equation 1. The description was found to be in line with the VCS standard requirement and Methodology requirement/03/04/ and hence found to be appropriately described.

3. Common Practice

The project proponent must determine the project is not a common practice based on the requirements sec 6.3 of the module/02/. The module clearly sets out the procedure to demonstrate the project activity is not a common practice. The steps has been assessed and found to be appropriately outlined.

The Assessment team reviewed the procedure for providing additionality and issued findings, as necessary and the assessment team concludes the criteria for determining additionality is complete and in line with the VCS requirements and Methodology requirements.

3.9 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

3.9.1 Baseline Emissions

The methodology identifies the continuous operations of CFPPs until it would have been retired in the pre-project activities as baseline scenario. To quantify the baseline, the methodology has defined some of the steps to help the project proponent. The steps defined for calculating baseline emissions and removals has been assessed and found to be appropriate.

The baseline emissions for the proposed methodology are GHG emissions that would have been occurred by the continuous operation of the CFPPs between the accelerated retirement date and baseline retirement date. The procedure for calculating baseline emissions are given below:

The baseline emissions for the year y are calculated as follows:

$$BE_y = EG_{BL\,CFPP_y} \times EF_{BL_y}$$

here:

BE_y	=	Baseline emissions in year *y* (t CO_2)
$EG_{BL\ CFPP\_y}$	=	Baseline net electricity generation and supplied to the grid in year *y* (i.e., amount of electricity that would have been generated and supplied to the grid in year *y* of the crediting period had the CFPP not been retired) (MWh)
EF_{BL_y}	=	Baseline emission factor in year *y* (i.e., emissions that would have been generated in year *y* of the crediting period had the CFPP not been retired) (t CO_2/MWh)

To calculate the baseline emissions, electricity that would have been generated needs to be determined. The value is determined based on the historical data of the operated CFPP system. Baseline electricity generation and supplied in year y by the CFPPs is determined as follows:

$$EG_{BL\,CFPP_y} = CFPPBL_{Gencap} \times CFPPBL_{CFPP_y} \times 8760$$

Where:

$CFPPBL_{Gencap}$	=	Net installed generation capacity of the CFPP being retired (MW)
$CFPPBL_{CFPPy}$	=	Lesser of the baseline CFPP's historical capacity utilization factor ($CFPPBL_{CFhis}$) and the average capacity utilization factor of at least two reference CFPPs ($CFPPREF_{CFave,y}$) (dimensionless)
8760	=	Number of hours in one year

Baseline Emission factor is determined as follows:

$$EF_{BL_y} = (FC_c \times NCV_c \times EF_{CO2C})/EG_{CFPP}$$

Where:

FC_c	=	Quantity of coal fired in the CFPP in the five most recent years (mass unit)
NCV_c	=	Average net calorific value of coal used in the CFPP (GJ/mass unit)

EF_{CO2C}	=	CO_2 emission factor of coal used in the CFPP (t CO_2/GJ)
EG_{CFPP}	=	Quantity of electricity generated and supplied to the grid by the CFPP in the five years immediately preceding project registration (MWh)

The procedures for calculating baseline emissions cover all GHG sources, sinks and reservoirs included in the project boundary.

- All equations and formulae used are appropriate and without error. Through review of the quantification requirements, the assessment team found issues/errors in equations, etc., were corrected throughout the process enough to reasonably assure the assessment team that the resulting baseline calculations of the methodology were appropriate and without error.
- All default factors used are appropriate and in conformance with VCS Program requirements or the same. The assessment team noted default factors in subject findings, and through the methodology assessment process, the default factors were considered appropriate for the methodology. Through detailed review during the methodology assessment process, the assessment team can confirm with reasonable assurance that all procedures for estimating the baseline emissions are appropriate and without error.

3.9.2 Project Emissions

The project emissions for the proposed methodology are the GHG emissions that are may be emitted from renewable electricity that is paired with the CFPP for its accelerated retirement. The procedure for calculating project emissions and removals are given below:

The project emissions for the year y is calculated as follows:

$$PE_y = \sum PE_{RE_{i,y}}$$

Where:

PE_y	=	Project emissions in year *y* (t CO_2e)
$PE_{RE\_i,y}$	=	Project emissions from operation of renewable energy power plant *i* in year *y* (t CO_2e)

The proposed methodology has specified that the generation of electricity from solar photovoltaic, wind (onshore/ offshore), tidal, and wave does not have project emissions, which is found to be in line with the CDM methodology: ACM0002/21/.

For other renewable electricity project, the project emissions are calculated based on the most recent versions of the following CDM methodologies:

- Project emissions from electricity generation from landfill gas: ACM0001 Flaring or Use of Landfill Gas/13/

- Project emissions from geothermal and hydropower: ACM0002 Grid-connected Electricity Generation from Renewable Sources/21/
- Project emissions from biomass-fired power plant: ACM0006 Electricity and Heat Generation from Biomass/24/
- Project emissions from wastewater treatment: ACM0014 Treatment of Wastewater/16/
- Project emissions from waste-to-energy power plant: ACM0022 Alternative Waste Treatment Processes/15/

VVB confirms that all above equations have been thoroughly assessed. The procedures instituted for calculating project emissions are robust and technically appropriate for the activities encompassed within the methodology. The extensive coverage of all relevant GHG sources, sinks, and reservoirs ensures accurate emissions quantification. The clarity of algorithms and formulas, coupled with adherence to VCS Program requirements, underpins the integrity of the emissions calculations.

Furthermore, the methodologies for estimating key parameters related to emissions quantification are rigorously structured and effective. Consequently, this assessment concludes that the existing procedures are suitable for accurately measuring and managing GHG emissions from the project activities, ensuring compliance with environmental standards and contributing to the sustainability objectives of the project.

3.9.3 Leakage Emissions

Additional GHG emission reduction occurring outside the project boundary due to the implementation and operation of a related GHG reduction project activity under the methodology is considered leakage and has to be considered.

Two main factors are leakages are considered for leakage emission in the proposed methodology which are additional amount of electricity that would have been required from the other grid connected CFPPs after retirement of CFPP and implementation of renewable energy, and leakage from the paired renewable energy sources.

The leakage emissions of year y is calculated as:

$$LE_y = ((EG_{Grid_y} - EG_{RE_{i,y}}) \times EF_{CM,y}) + LE_{RE_{i,y}}$$

Where:

LE_y	=	Leakage emissions in year *y* (t CO_2e)
EG_{Grid_y}	=	Incremental output from grid-connected power plants in year *y* (MWh)
$EG_{RE\_i,y}$	=	Net electricity generated and supplied to the grid by paired renewable electricity capacity *i* in year *y* (MWh)
$EF_{CM,y}$	=	Emission factor associated with the production of $EG_{Grid,y}$ in year *y* (t CO_2e/MWh)

$LE_{RE\_i,y}$ = Leakage emissions from paired renewable electricity source *i* in year *y* (t CO_2e)

Inclusion of Upstream Methane Leakage in Gas-Fired Power Plants

The emission factor for the upstream methane leakage emissions associated with power generation must be determined using the latest version of CDM Tool 15:Upstream leakage emissions associated with fossil fuel use.

Leakage emissions from paired renewable electricity ($LE_{RE,y}$)

The leakage emissions from paired renewable electricity are calculated based on the most recent versions of the following CDM methodologies:

- Leakage emissions from biomass-fired power plant: ACM0006 Electricity and Heat Generation From Biomass/24/
- Leakage emissions from wastewater treatment: ACM0014 Treatment of Wastewater/16/
- Leakage emissions from waste-to-energy power plant: ACM0022 Alternative Waste Treatment Processes/15/

VVB confirms that all the factors for the leakage emissions has been appropriately taken by the M*ethodology Developer*. All the equations have been assessed and found to be appropriately taken for the calculation of the leakage emissions. Furthermore, the methodologies for estimating key parameters related to emissions quantification are rigorously structured and effective. Consequently, this assessment concludes that the existing procedures are suitable for accurately measuring and managing GHG emissions from the project activities, ensuring compliance with environmental standards and contributing to the sustainability objectives of the project.

3.9.4 GHG Emission Reductions and Carbon Dioxide Removals

As per methodology, the net GHG emission reductions and removals are calculated as:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y = GHG emission reductions in year *y* (tCO_2e)
BE_y = Baseline emissions in Year y (tCO_2e)
PE_y = Project emissions in Year y (tCO_2e)
LE_y = Leakage emissions in Year y (tCO_2e)

Based on the documents checked as well as based on related VCS regulations/04/ the VVB confirms that the procedures for calculating net GHG emission reductions and removals are appropriate for the project activities covered by the methodology, and provide an overall conclusion regarding procedures for calculating net GHG emission reductions and removals.

Hence, the VVB confirms that:

- All algorithms, equations and formulas used are appropriate and without error.
- Any uncertainties associated with the quantification of net GHG emission reductions and removals are addressed appropriately.

3.10 Monitoring, Data and Parameters

The methodology has described data and parameters available at validation that are fixed for the duration of the project crediting period and data and parameters monitored that must be monitored during the project crediting period for each verification.

All parameters which have been defined in the corresponding baseline, project and leakage emission calculation sections have been considered either as a parameter available at validation or as a monitoring parameter or is given as a default value.

Data and parameters available at validation:

Parameter	Definition	Justification
$CFPPBL_{Gencap}$	Net installed generation capacity of the CFPP being retired MW	The parameter determines the net installed capacity of the CFPP being retired, and the source of data is project proponent records and CFPP records. The installed capacity of the CFPP will be fixed at the time of validation. The data will be utilized for the determination of baseline emissions.
$CFPPBL_{CFhis}$	CFPP historical capacity utilization factor -	The parameter determines the capacity utilization factor of the CFPP using its historical data. The source of data is project proponent records, and the value is determined using the lowest value of the following: • $CFPPBL_{CFval,5\text{-}average}$: average capacity utilization factor of the baseline plant over the five most recent years preceding project validation • $CFPPBL_{CF\ val,3\text{-}average}$: average capacity utilization factor of the baseline plant over the three most recent years preceding project validation • $CFPPBL_{CFpre\text{-}decom,5\text{-}average}$: average capacity utilization factor of the baseline plant over the

		five years preceding the CFPP's actual retirement • $CFPPBL_{CFpre\text{-}decom,3\text{-}average}$: average capacity utilization factor of the baseline plant over the three years preceding the CFPP's actual retirement The data will be utilized for the determination of baseline emissions.
FC_C	Quantity of coal fired in the CFPP in the five most recent years Mass unit (e.g., ton, Kg)	The parameter determines the quantity of coal which has been utilized in the most recent five-year period by the CFPP to be retired. The source of data is the onsite records and is to be cross checked with the invoices of the same period. The data will be utilized for the determination of baseline emissions.
NCV_c	Weighted Average net calorific value of coal used in the CFPP GJ/mass unit	The source of data is the following: 1. Values provided by coal supplier 2. Measurement by project proponent 3. Regional or national default values 4. IPCC default values at the upper or lower limit – whichever is more conservative – of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1, Vol. 2, 2006 IPCC Guidelines on National Greenhouse Gas Inventories/25/ The default applied value has been stated in the methodology and found to be appropriate. The data will be used for the calculation of baseline emissions.
EF_{CO2c}	CO_2 emission factor of coal used in the CFPP t CO_2/GJ	The source of data is the following: 1. Values provided by coal supplier 2. Measurement by project proponent 3. Regional or national default values 4. IPCC default values at the upper or lower limit – whichever is more conservative – of the uncertainty at a 95% confidence

		interval as provided in Table 1.2 of Chapter 1, Vol. 2, 2006 IPCC Guidelines on National Greenhouse Gas Inventories/25/ The default applied value has been stated in the methodology and found to be appropriate. The data will be used for the calculation of baseline emissions.
EG_{CFPP}	Quantity of electricity generated and supplied to the grid by the CFPP in the five years immediately preceding project registration MWh	The parameter is used to records the amount of electricity generated and supplied to the grid by the retiring CFPP for the recent five years and will be checked through the electricity meter record of the project site. The data will be utilized for the determination of baseline emissions. Methodology Developer has also mentioned the conditions for the electricity meters such as its records for regular maintenance and calibration as per host country requirements, which is found to be appropriate.

Data and parameters Monitored:

Parameter	Definition	Justification
Total installed paired renewable electricity generation capacity	Total installed paired renewable electricity generation capacity in year y Percentage	The parameter is used to determine the total installed renewable generation capacity. The parameter will be monitored continuously to establish the total percentage of renewable energy installed for the project activity. The parameter has been established by the Methodology Developer so that applicability condition 12 and 13 in the Proposed Methodology can be monitored. The parameter was found relevant and with appropriate measurement methods listed.
EG_{Grid_y}	Incremental output from grid-connected power plants in year y MWh	The parameter will used to monitor the incremental output of the CFPP to be retired. The parameter will be annually. The source of data will be the project proponent records and will be used for the calculation of leakage emissions. The parameter has been established by the Methodology Developer; Thus, the parameter was found to be

		relevant and with appropriate measurement methods listed.
$EG_{RE\_i,y}$	Net electricity generated and supplied to the grid by paired renewable electricity capacity i in year y MWh	The parameter will be used for the monitoring of electricity generated by the paired renewable energy. The data will be continuously monitored and at least monthly recorded. The source of data will be the electricity meters. Methodology Developer has also mentioned the conditions for the electricity meters such as its records for regular maintenance and calibration as per host country requirements, which is found to be appropriate. Thus, the parameter was found to be relevant and with appropriate measurement methods listed.
OM	Operating margin tCO_2e/MWh	The parameter is used for the calculation of operating margin of the retired CFPP. The source of data is the following: 1. Regional or national default values 2. Global average default If simple OM is calculated, project activity can utilize latest version of the CDM Tool 07/26/, and the value will be established ex-ante and calculated annually thereafter. The parameter description and method utilized ensures that the OM is calculated appropriately, and hence, found to be appropriate. Thus, the parameter was found relevant and with appropriate measurement methods listed
BM	Build margin tCO_2e/MWh	The parameter is used for the calculation of operating margin of the retired CFPP. The value of the parameter must be calculated using project activity can utilize latest version of the CDM Tool 07/26/, and the value will be established ex-ante and calculated annually thereafter. The parameter description and method utilized ensures that the BM is calculated appropriately, and hence, found to be appropriate. Thus, the parameter was found relevant and with appropriate measurement methods listed

$CFPPREF_{CFave,y}$	Average capacity utilization factor of at least two reference CFFPs -	The parameter determines average capacity utilization factor of the CFPPs taken for reference. The parameter is used for the calculation of the baseline emissions and fixing the capacity utilization factor for the entire crediting period for the CFPP to be retired. The source of parameter is the system operator records. PP has also defined the criteria to be used for the determination of the reference CFPPs and conditions if no such CFPP as per the criteria is found in the host country. The criteria are found to be clear, concise and appropriate.

Requirements for data and calculation reviews are clearly defined in Methodology/02/; these requirements are deemed proper by VVB to allow for uncertainties related to the emission reductions to be reduced in a reasonable manner.

Further, VVB concludes that the ex-ante and monitored parameters demonstrate adherence to the principles of the VCS Program. Methodology has been developed in line with the project level principles and the methodology requirements of VCS/03/04/20/, as elaborated above. It is also deemed by VVB that the principles of relevance, completeness, consistency, accuracy, transparency, and conservativeness are properly addressed in Methodology.

3.11 Uncertainty

Earthood has assessed the approach taken to address uncertainty and find it to be both appropriate and in conformance with VCS Program rules and requirements/03/04/. The evaluation encompasses an assessment of how the methodology effectively minimizes both systematic and random errors to the extent practicable and appropriately deals with uncertainties. Hence, achieving a reasonable level of assurance. As discussed earlier, all findings were addressed satisfactorily and there were no uncertainties identified during the assessment of the methodology.

3.12 Verifiable

Earthood critically assessed the methodology revision to ascertain its level of clarity and specificity and can confirm that the methodology revision effectively mandates project proponents to transparently report project results, thus ensuring compliance with requirements for validation and verification processes with a high degree of confidence. This aligns with established audit standards and best practices, reinforcing the reliability and integrity of the reported project outcomes.

The methodology under assessment is version 1.0, issued on 17/10/2024.

Furthermore, it is crucial to assess if the methodology encompasses clear guidelines and instructions that enable project proponents to accurately and comprehensively document project outcomes. This not

only facilitates a transparent reporting process but also enhances the likelihood of successful validation and verification efforts, instilling a greater level of confidence in the overall assessment. Additionally, a well-defined methodology fosters consistency and reliability in project reporting, aligning with established VCS rules and requirements.

VVB provides a reasonable level of assurance for the assessment of the methodology. This involves a thorough review and assessment to ensure that the methodology meets all relevant standards and requirements. By offering this level of assurance, the VVB helps to confirm the accuracy, reliability, and integrity of the methodology under assessment.

4 ASSESSMENT CONCLUSION

Earthood Services Limited (Earthood) has performed a methodology assessment of the proposed methodology "Accelerated Retirement of Coal-Fired Power Plants Using a Just Transition" /01/. The methodology assessment was performed based on rules and requirements defined by VCS Standard/03/04/.

The methodology is falling within Sectoral Scope 1 – Energy Industries (Renewable/ Non-renewable sources). The date of issue of the methodology is 17/10/2024.

Earthood Services Limited has informed the methodology developers of the assessment outcome through the draft assessment report and final assessment report. The final assessment report contains the information regarding fulfilment of the requirements for assessment, as appropriate.

Earthood Services Limited applied the following assessment process and methodology using a competent assessment team.

- the publication of draft version on VERRA for global stakeholder consultation process
- the desk review of documents and evidence submitted by the methodology developers in context of the reference VCS guidelines issued,
- reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and
- preparing a draft assessment opinion based on the auditing findings and conclusions
- technical review of the draft assessment opinion along with other documents as appropriate by an independent competent technical review team
- finalization of the assessment opinion (this report)

The review of the methodology report and, supporting documentation have provided Earthood with sufficient evidence to determine the fulfilment of stated criteria.

Earthood is of the opinion that the proposed methodology "Accelerated Retirement of Coal-Fired Power Plants Using a Just Transition", does meet the stated criteria of VCS requirements. Therefore, the proposed methodology is being recommended to VERRA's Board for request for registration and approval.

5 EVIDENCE OF FULFILMENT OF VVB ELIGIBILITY REQUIREMENTS

Earthood Services Limited is accredited by Executive Board (EB) of Clean Development Mechanism (CDM) as a Designated Operational Entity (DOE). The accreditation has been granted for 11 different sectoral scopes including sectoral scope 1 i.e. Energy Industries (Renewable/ Non-renewable sources) since 25/06/2014/29/. The information about Earthood's accreditation and sectoral scope is available at the following UNFCCC interface https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0066/.

VVB confirms to fulfil the requirements meted out in section 3.5 of the Methodology Development and Review Process Version 4.4/27/ and in Section 5 of the VCS Program Guide/20/. The assessment process has been carried out in accordance with the steps elucidated in section 6.0 of Methodology Development and Review Process Version 4.4/27/. The scope of the VVB assessment is in line with the agreement with developer (South Pole Carbon Asset Management Limited), and satisfies the requirements charted in the VCS Methodology Submission Form & Agreement version 4.1/28/.

The personal worked on the methodology has sufficient knowledge and experience of working on the projects in sectoral scope 1. The short resume of team members is provided below in Appendix 3.

6 SIGNATURE

Signed for and on behalf of:

Name of entity: Earthood Services Limited

Signature: 

Name of signatory: Dr. Kaviraj Singh

Date: 21-03-2025

APPENDIX 1: LIST OF STAKEHOLDER COMMENTS

All the comments raised during the public stakeholder comments period were reviewed by the VVB. The responses to all the comments were found to be satisfactory and where applicable the necessary changes as per the public comments raised have been made in the methodology. The changes made have been reviewed and found to be appropriate. Overall, all stakeholder comments have been thoroughly considered and appropriately addressed.

Comment Number	Comment	Response to Comment & Summary of Change Made
1.	For merchant plants, recommend that the CFPP must be able to sell in a recognized and meaningful electricity market (e.g., trading at least [10%] of total volume), and at least one of the following conditions is met: 1) CFPP be retired on or before 2030 and must be less than 35 years in operations by the time of (early) retirement. Rationale: any reasonably aged CFPP retired by 2030 will help the IEA position that 55% reduction in coal emissions between 2022 and 2030 is needed to achieve the 1.5 degree limit. Alternatively, the likelihood of a vintage early 1990s CFPP retiring by 2030 is very low. (Eg. (1) Mt Piper in NSW Australia vintage 1993 commercial operation date, with planned retirement date of 2040. Unlikely to voluntarily retire at age 35 or year 2028 unless there is incentive). 2) CFPP to be retired on or before 2040 and must be less than 25 years in operations by the time of (early) retirement. Rationale: CFPPs typically have 25 years of depreciable life. Retiring merchant CFPP before year 25 is highly unlikely given asset write-off issues, especially if the plant is profitable (which is gated by the historic cash flow test). 2040 retirement date consistent with SBTI net zero target date for energy companies to attain 1.5 degree limit. 3) CFPP to be retired on or before 2040 and must be less than 35 years in operations by the time of (early) retirement, AND supported by a third party study that	1. Methodology is not developed to incorporate merchant CFPPs. Since the merchant CFPPs do not have a fixed single long term PPA, it becomes difficult to appropriately to quantify its baseline electricity production and the time it would be retired in absence of a regulation or other government incentive. Age of the plant may always not be the appropriate proxy for its baseline retirement date and in case of Merchant Plants, previous utilzation rate may not appropriate proxy for its future utilization. The methodology developer will consider merchant plants in future versions/revision Appropriate revisions will be made in the methodology for its applicability conditions and the module for considerations under baseline retirement date and additionlity, including requirement considerations to prevent in form of overcrediting.

	the CFPP is likely to operate at [>50%] capacity factor and likely to remain profitable until (early) retirement year. Analysis by 3rd party to include plant's financial/ operational outlook and market dynamics. Rationale: 30+ year old CFPPs operating in the 2030s (eg. Quezon Power Plant in the Philippines vintage 2000 commercial operation date) may or may not be competitive. A third party study justifying financial and operating viability can confirm additionality.	
2.	Verra should highly consider registering merchant CFPPs in liberalised wholesale markets, especially because we are seeing an increasing trend of liberalisation across APAC (e.gD7:D18., Philippines, China). Uncontracted CFPPs that are rarely dispatched under merit-order to provide physical services - hence, unable to recover capital cost sufficiently should be ineligible. Deeper study needs to be done to specify a threshold frequency.	Same answer as Row 6 Column F We do agree that uncontracted CFPPs that are rarely dispatched under merit-order should not be eligible, and additional research would need to be done to identify the thresholds for such a definition and this methodology is not appropriate for any merchant plants.
3.	For the approach, it should be paired generation ouput (i.e., energy output in GWh) instead of generation capacity, especially considering RE capacity factor is much lower than CFPPs. The Methodology can consider the following dimensions/metrics of pairing: 1) Extent of pairing (i.e., coverage ratio relative to lost CFPP generation) 2) Timing of clean energy replacement 3) Quality of energy replacement (i.e., intermittent vs dispatchable or with energy storage) The Methodology should also consider that the volume of transition credits be differentiated depending on the three aforementioned metrics (e.g., a high coverage ratio, early replacement timing, and dispatchable RE should be given more credits). Overall, the Methodology should also be reviewed and revised in order to align the parameter on paired generation (i.e., the proposed 40% RE requirement), its determination, and its use across the Methodology so that a simplified alternative approach can be presented.	- The installed capacity and its actual generation varies significantly amongst different type of RE types. It becomes difficult to have a minimum pairing approach based on generation output. For leakage emissions (energy compensated by the grid that paired RE is unable to produce) the actual output of paired RE is measured and monitored. - 1) Extent of Pairing - as mentioned above extent of pairing is determined based on installed capacity to have a standarised form of comparison. Though, for actual emission reduction calculations, actual RE output as compared to baseline electricity production is considered. 2) The methodology is requiring a min of 10% installed capacity pairing at the time of decomissioning and 40% achieved at minimum by end of the

		crediting period 3) Quality aspect however is not directly considered. The methodology allows for dispatchable form of RE pairing (e.g.. Solar + BESS) and non-dispatchable (only Solar). However it is expected that there would be difference (positive) in terms of RE paired dispatchable vs non dispatchable, thus indirectly incentivisation. - Volume of credits is determined by the amount of RE paired and thus is generation output. The earlier and more RE is paired, the more transition credits will be issued. - There is parameter on actual RE generation of RE. However. as mentioned above, the minimum pairing is based on installed capacity,
4.	This is likely insufficient, since the nameplate capacity of most RE plant is not equivalent to dispatchable CFPPs in terms of periodic provision of energy and system services. Applying capacity factors address the inequvialence partially, but is unable to capture the inter-periodic availabilty of the plant. For e.g., (1) Standalone Solar PV vs. (2) Solar PV paired with BESS - both may have similar capacity factor in a day, but (2)'s generation is smoothened and is dispatchable to provide system services. Improve by applying capacity factors, and lift threshold to >70% as a simplistic approach to minimise leakage.	- We agree that actual generation is different for different RE types even if the installed capacity is same. That is why actual credits - leakage emissions is based on difference of baseline electricity and project RE electricity supplied to the grid. - The methodology is designed in a conservative way that if there is not enough high RE pairing thus RE generation output, the emissions reduction will not be substantial.
5.	Instead of a minimum of 5% of carbon credit proceeds being allocated for Just Transition, the allocation of proceeds from carbon credit sales to the Just Transition (JT) mechanism can be structured within different ranges, allowing flexibility to asset owners and incentivizing energy transition. The allocation ranges are illustrative and should be adapted based on project-specific factors, financial analyses, and stakeholder consultations. This tiered and flexible approach allows for a nuanced allocation of funds,	The methodology allows the project developer to fund JT via multiple sources such as dedicated funds, grants, loan, debt financing etc apart from the carbon revenue. This takes into consideration that scenario might differ based on country/region, asset, communities surrounding the

	ensuring that the financial contributions to the JT mechanism are commensurate with the specific circumstances of each project. Expected Factors Influencing Allocation of Carbon Revenues: Decommissioning Costs: Allocate a portion of the proceeds to cover the actual decommissioning costs incurred by asset owners. This can be calculated based on the projected expenses for dismantling, site reclamation, and remediation. Severity of Impact: Consider the severity of adverse impacts on local communities, workers, and other stakeholders. The more significant the impact, the higher the allocation within the permissible range. Community and Worker Support Programs: Allocate funds for programs supporting affected communities and workers, such as job retraining, education, and healthcare. Environmental Remediation: Dedicate a portion to environmental remediation efforts, including cleanup of pollutants and rehabilitation of the project site. Regular Review and Adjustments: Additionally, the methodology should also implement a mechanism for regular review and adjustments to the allocation ranges, considering changing project dynamics, costs, and stakeholder needs.	CFPP among others. The minimum percentage is now reduced to 2%. As per the applicability conditions, The JT must be fully funded regardless of the carbon revenue On decommissioning cost. These costs are not additional cost. The plant would have been decomissioned at a later stage, hence cost for this and emissions associated to decomissionsing are not considered by the methodology.
6.	5% sounds reasonable as a starting point. Data should be collated overtime to determine to finetune this percentage. Further clarity is needed on whether actual funds should be based on projected or actual revenue (or simply state higher of). Since the minimum funding is dependent on revenue estimated, ex-ante projections should be more robust so that neither project owners nor stakeholders are shortchanged	The methodology requires the JT to be fully funded regardless of the carbon revenue. Now the methodology requires min of 2% of 'net' carbon revenue to be chanelled to the JT overtime.
7.	JT plan can be discussed with stakeholders and government as required under local laws and regulations and can be overseen by a designated body/committee. Such provision would replace the applicability condition part on JT entirely. We can set basic principles after announcement of decommisioning to set clear key commitments. The only condition would be that there is a plan and an agreement for oversight and default events at a period closer the decommissioning in alignment with local laws and regulations.	It is important that the quality of the plan (and it's inclusion of the detail in the applicability conditions) is also a requirement, therefore we should keep the level of detail currently in the methodology and required for credit generation.

8.	An intrinsic penalty and reward system wherein illustration of the following: a. 100% coverage or replacement of generation b. RE deployment/commercial operations date c. Reasonable dispatchability will provide higher volume of credits in such a way that the cost to maintain electricity prices (which is a-c) can be covered by proceeds of the sale of carbon credits. In a liberalized market where the full cost of producing and delivering electricity are borne by the consumers with minimal to no subsidy from the government, IPPs are incentivized to find various strategies and employ various business models to decrease costs in order to remain competitive in the market.	The methodology is already structured in this way by quantifying and incorporating the leakage emissions from grid dispatch for projects with less than 100% generation coverage across the timeline of retirement. The methodology is conservative where it is not possible to incorporate dispatch data on time-of-use differentials in dispatch between the baseline CFPP operations and the replacement. The methodology is does not include merchant case of liberalised market.
9.	Project managers can levelise the impact to electricity cost by incorporating an economy-wide carbon price based on the economy's generation mix. Similarly, the system reliability score of the power system should be re-assessed with the proposed implementation of the transition project.	The proposal is out of scope of the methodology. Economy wide carbon tax or similar scheme is function of the relevant national/local government. The scope of the methodology is limited to design of individual project for CFPP accelerated retirement and quantification of its net GHG impact
10.	For liberalized markets, evaluating a CFPP's financial feasbility would not only consider existing PPAs since this can always be recontracted for as long as there is a power demand growth and market expansion. Additionally, CFPP can serve retail customers that are typically short-term contracts and can also sell electricity through the wholesale electricity markets. Meanwhile, for regulated markets, long-term PPAs play a more critical role, given that the future of the CFPP post-PPA period is dependent on government action. However, for CFPPs that continue to be owned by an asset owner post-PPA, an expiring PPA and a fully depreciated plant does not necessarily translate to a natural retirement of the CFPP. This would depend on the current supply-demand situation of the power system. For example, for CFPPs under a Build-Operate-Transfer scheme where the government takes back control/ownership of the CFPP post-PPA, it can be argued that there is a higher likelihood of continuing the CFPP's operations.	The considerations for retirement including remaining book value of the plant are different from what is considered currently for plants with Long term PPA. THe methodology currently does not cater for merchant CFPP. Consideration to inlcude merchant CFPP would be made in the future revisions of the methodology

	As such, quantifying carbon credits using a very conservative baseline retirement date (e.g., end of PPA or the earliest among several variables) would be a strong disincentive for CFPPs to pursue early retirement. As an alternative, the Module can reconsider being less conservative with this parameter, and instead consider applying a higher incentive (i.e., more credits) to plants that retire younger and less credits to plants that retire older.	
11.	Grid services provide significant revenue to CFPP, but also benefit to the system as a whole. Conservativeness in estimating the retirement date and hence the revenue gap is a disfavour to the power system as a whole, since it indirectly omits the additional funding needed to backfill CFPP with costlier dispatchable assets that preserve system reliability.	The analysis only considers the value of generation, rather than including the value of additional grid services that the CFPP may provide (e.g., capacity, ancillary services), except in the case of an off taker of a CFPP PPA, the NPV of required revenues must be calculated based on the terms of the PPA as shown in Equation 3. However, the role of the methodology is to define financial additionality and the emissions reductions, rather than provide pricing guidance on the financial gap. It does not define the approach to determine the financial gap The methodology and the overall estimation of baseline and emission reductions must be conservative to avoid any future instances of overcrediting that may impact environmental integrity of the methodology and project
12.	As per response in 12, intermittency from paired generation (especially if replacement capacity is considerable) can raise the requirement for system services considerably. As such, the conservativeness of estimation in this case is not a benefit to the wider power system, which impacts whether the CTM can be implemented justly.	To ensure that grid is not stabilized due to the project (especially the accelerated of the CFPP), a comprehensive analysis required to be done by the system operator ensure such.
13.	Perhaps unrelated: speaking of FSA, this is a potential source of upstream leakage, especially if coal producer can re-direct supply and/or FSA has a 'take-or-pay' arrangement. Project proponents who are able to re-direct their coal supply for cleaner applications should be recognised. Conversely, those who did not	This may constitute a part of international leakage, for example - a country like India maybe importing coal from another country but due to early retirement of the CFPP, the coal supplier may or may

	address upstream leakage could be penalised under methodology.	supply the same coal to another CFPP in another country. Such is not part of the activity, nor is in control of the individual CFPP operator.
14.	Definition | Clarification Coal Transition Mechanism (CTM) The financial products and services that aim to accelerate a managed transition of a CFPP that has remaining fair value to their owners. This is done by changing the underlying cost of capital of a CFPP or its required revenues to deliver necessary returns. Voluntary Carbon Market (VCM) and Article 6 is excluded from the definition of a coal transition mechanism. _____ Further clarification of the definition above of whats excluded as a "coal transition mechanism"	The definition now also excludes schemes such as ETS and Carbon Tax. Such schemes put a 'value' to GHG emissions rather than the asset.
15.	4.1.3 (Applicability Conditions for CFPP Retirement) | Proposed change: 3) CFPP is connected to the grid. Captive power plants (CPPs) may also be eligible under the methodology, provided the following conditions are met: a) The CPP is owned and operated by an entity for the sole purpose of supplying power to its own commercial or industrial (C&I) facility or other off-grid applications. b) The CPP provides essential power to support the core operations of the owning entity, contributing to its primary industrial or commercial activities. _____ Captive CFPPs have a key role to play for C&Is use and off-grid applications where grid connection is unavailable or too expensive due to distance. Making this achieve wider scale in PH as this will be used for discussions with government. The conditions under sub paragraph B have been proposed to ensure a clear distinction between CPPs and IPPs. In the case of CPPs, other concerns around maintaining energy security, electricity prices, and approval from regulatory authorities should be automatically alleviated, thereby making a stronger case for deploying transition credits at scale.	While we agree with the concept that there is a strong case for carbon credits to be additive in the transition of captive coal plants, our view is that this would require a thoughtful adaptation of the methodology. The methodology can be revised and captive power plants case can be added in the future iterations, especially when there will be a project associated.
16.	4.1.4 (Applicability Conditions for CFPP Retirement) | Proposed Change The CFPP must be operating in either a regulated electricity market or a liberalized electricity market. Ownership structures may include: a) The CFPP is owned by a regulated utility. b) The CFPP is owned by an independent power producer (IPP) allowed to sell electricity to a grid through a a power purchase agreement (PPA),	SP response: The methodology is being revised for liberalised/deregulated markets where there is a single long term PPA (e.g., SLTEC). This would enable similar considerations for determination of baseline scenarion retirement date and

	regulated utility off-taker, or in the absence of a PPA, through participation in a recognized electricity market. _____ Existing clause disregards partially or fully liberalized markets with strong market frameworks (eg wholesale electricity markets, shorter PPAs) like the Philippines. Additional considerations: i) Market and Profitability Potential: Eligibility may extend to plants demonstrating a strong potential for profitability. The plant must provide evidence of its financial viability, taking into account industry and market conditions, revenue streams, and competitive positioning. Such evidence may include financial projections, market analyses, or other relevant indicators. ii) Independent Assessment : A mechanism should be established for an independent third-party assessment or verification of the plant's profitability potential and role in power generation in the grid based on historical performance. Analysis by 3rd party to include plant's financial/ operational outlook and market dynamics.	baseline emissions. The future iterations can include other dergulated markets cases, including those related to merchant CFPPs. Applicability condition have been added for ownership of a CFPP and that regarding its PPA. The current set of requirements of the methodology is not appropriate to extend to merchant plants dependent on spot market revenue for continued operation due to: - the significant difficulty in creating a robust baseline scenario in a wholesale market. Historical operations will not be an appropriate proxy for future operations. - the high likelihood that carbon credits from the retirement of merchant plants in liberalised markets will not remain additional when incorporating future competition with cheaper renewables - the need for additional safeguards to applicability conditions and a different approach to estimating emissions reductions
17.	4.1.5 (Applicability Conditions for CFPP Retirement) | Proposed Change The CFPP has demonstrated utilization (i.e., proof of consistent operations within bounds of market demand). Acceptable utilization (i.e. capacity factor) will be on a case-to-case basis, depending on the operations strategy and planning of the particular CFPP including requirements set by government. _____ For liberalized markets, utilization metrics may need to be adjusted depending on merchant operations. Operations strategy of a CFPP will also change depending on plans and should be considered as part of the guidance of when the utilization metrics will be measured (e.g., BAU will have a different O&M strategy compared to a 3-5 year retirement runway or	Refer to rationale provided in row 6 and 7

	decomissioning, government may require higher or less utilization). In measuring this metric, the prescription to determine the Baseline Electricity Generation must be made consistent throughout the Methodology (e.g., align the Gy in the Module to determine the Baseline Year of Retirement, BEelec CFPP y in eq 2 of the Methodology, EG Grid y in eq 5).	
18.	4.1.5 & 6 (Applicability Conditions for CFPP Retirement) | Proposed The CFPP has demonstrated cumulative positive net income after taxes for the last three years prior to the retirement of CFPP and at the time of project validation. The CFPP has demonstrated positive fair value using a methodology that meets International Financial Reporting Standards for accounting (IFRS 13 Fair Value Measurement). In cases where CFPP is owned by a subsidiary and ownership of the subsidiary was transferred from the parent company in the last five years, the positive cashflows of both the subsidiary and the parent company will be considered for the years prior to transfer of ownership, considering any accounting adjustments related to business considerations. _____ Net Income is more reflective of true economics than FCFE. To allow CFPP owners to participate in carbon credits and not be restricted from participating because of business considerations prior to CTM. The intention of this criteria is to exclude CFPPs that are not profitable and would have closed anyways. Alternative metrics such as the maximum eligible age of a CFPP, operating hours, etc.might serve the purpose but would be a better accessible proxy. Further, the profitability of the plant is considered in the module when establishing the Baseline Retirement Year. Eventually, this criteria is already covered by that determination, since unprofitable plans would have an immediate Baseline Retirement Yearand cannot credit reductions It was required in the draft that the CFPP has demonstrated positive fair value using a methodology that meets International Financial Reporting Standards for accounting (IFRS 13 Fair Value Measurement). What does this mean for an operating CFPP—is it simply ensuring that the CFPP is in a Net Asset Position? Do we need to have an AFS prepared	SP response re: "Net Income is more reflective of true economics than FCFE." - We've proposed utilising free cash flow to equity as this is how investors are valuing CFPPs to reflect the timing of cash flows adjusting for non-cash items: -- Capex and D&A: Capex is capitalised in the income statement over the lifetime of the asset and reflected in the income statement as D&A, which requires cash outflow timing adjustment -- Changes in working capital: It is essential to adjust the revenues and cost of a CFPP for the timing of cash flows -- Impairments: If you shorten the life of an asset by 50%, you would expect a significant impairment of the asset value. This impairment will be recognised as a cost in the income statement, while it is not a cash item. You would therefore 'double count' the value loss. -- Debt repayment: Althought the income statement include interest payment, it does not incorporate debt issuance or repayment, which is a significant cash item, especially in an asset you're not valuing as a 'going concern'. -- Transaction cost: Some of the transaction cost could me capitalised for tax optimisation, which needs to be adjusted on a cash flow

	that fair values the assets and liabilities which is not normally done for operating plants?	basis. -- Decommission cost: A common practice for an asset with a definite life is to recognise the future cost as a liability on the balance sheet. This should be treated as an annual liability provision in the income statement, which again is a cost item in the income statement although no cash outflow is taking place until the decommissioning. -- early termination of PPA and supply agreement cost: If the cost is known today, a similar liability should be included in the balance sheet, with annual provisions recognised in the income statement. SP responde re: "Eventually, this criteria is already covered by that determination, since unprofitable plans would have an immediate Baseline Retirement Yearand cannot credit reductions" - There are several reasons why a plant may run although not profitable; Due to regulation; high leverage, with eventual profitability once part of the debt is repaid. SP response re: "It was required in the draft that the CFPP has demonstrated positive fair value using a methodology that meets International Financial Reporting Standards for accounting (IFRS 13 Fair Value Measurement). What does this mean for an operating CFPP—is it simply ensuring that the CFPP is in a Net Asset Position? Do we need to have an AFS prepared that fair values the assets and liabilities which is not normally done for operating plants?" - Please confirm the meaning of AFS. There are two ways to

		demonstrate a positive fair value of a CFPP: 1) An arms-length transaction, where the equity value of the plant is positive; or 2) for an operating plant where the plant owner seeks carbon finance to justify an early decommissioning, we recommend engaging an idependent investment bank or accounting firm to carry out an objective third-party valuation of the equity value of the plant.
19.	4.1.8 (Applicability Conditions for CFPP Retirement) | Proposed Change 8) The project proponent must demonstrate full compliance with local laws, rules, and regulations governing the decommissioning of power plants. In the absence of local laws, rules, and regulations on decommissioning, the project proponent must show through an independently prepared 3rd party report from an internationally established advisor that it: a) has conducted an assessment on the implications of the CFPP's accelerated retirement, including a rate impact analysis and reliability assessment, and b) confirms that the early CFPP retirement will not have a direct negative effect on consumer prices and energy access. _____ The provision is too restrictive and does not take into consideration regulations governing decommissioning which may vary from one jurisdiction to another. If the intent is simply to have an official confirmation from the relevant supervising authority, then the text of provision can be further streamlined to reflect this intent. Instead of listing specific requirements, full compliance with local regulations on decommissioning, if one exists, should be sufficient. It is usual for governments and regulators to be comfortable with a no-objection letter for items that are aligned with existing rules and regulations and plans. In the case of a CFPP retirement, as long as the plan is in accordance with existing laws and regulations and proven by a grid study then it should be acceptable to the regulator. Moreover, it's hard to ask government to do grid analysis every time a CFPP files for retirement as they usually only do this analysis periodically (eg annual) as part of planning processes. Moreover, this requirement can pose a difficult to	The intent is more than obtaining no objection certficate. As in example cited of environment and energy ministry, all the laws applicable pertaning to E&E and other things, must be complied.

	manage risk if the system operator is not able or unwilling to comply with the conditions, the methodology is not applicable, and the project does not receive carbon credits. Government authorities could also be irritated when finding themselves pushed by a foreign entity that claims ownership for energy transition in the host country's own jurisdiction. In the context of the Philippines, the PH DOE has issued Department Circular No. DC2023-07-0022 which outlines the technical and regulatory requirements for decommissioning power plants. A meticulous step-by-step procedure is already laid down in this regulation which all asset owners have to comply. Specific government agencies including the system operator are also required to either be notified or sign-off in the process before the decommissioning can commence. For environmental requirements, the PH Department of Environment and Natural Resources (DENR) likewise requires the asset owners to identify the environmental impact of its decommissioning as well as submit a Decommissioning Plan six months prior to decommissioning.	
20.	4.1.9 & 10 (Applicability Conditions for CFPP Retirement) | Proposed Change 9) Upon decommissioning the CFPP, major plant equipment must be adequately disposed of to prevent their use to build a new CFPP and/or extend the life of existing ones. Plant equipment to be disposed of must include the [coal crusher and grinding equipment]. Disposal may include recycling of material or retooling of equipment to support low-carbon activities (i.e., repurpose the CFPP site for non-fossil fuel combustion activities, such as utilizing the plant for thermal energy storage). 10) Upon decommissioning, the proponent must conduct site reclamation and remediation. This must include at a minimum the removal of any toxic chemicals like asbestos, and cleanup and proper disposal of coal ash. 11) [NEW PROVISION]: Decommissioning, disposal, reclamation, and remediation activities and results should be compliant with the relevant local laws, rules, and regulations. Compliance verification shall likewise be in accordance with relevant local rules. In the absence of local laws, rules, and regulations, the project proponent must implement within a reasonable transition period minimum internationally acceptable technical standards.	POint 11 mentioned is covered in previous requirement of compliant with all laws and regulations

	No 11 supplements nos 9 and 10 in prescribing the compliance with local laws. Adding also that compliance "verification" will be likewise in accordance with local laws. For context, Philippines and other countries may have different requirements and local CFPPs are aligned with this and highly compliant but we cannot require them to comply with something they do not know and cannot work towards to. In case carbon credits standards will require standards higher than local requirements, there should be a transition period to achieve that allows participation in CCs as long as theres an iniitative leading to that.	
21.	General feedback for following provisions: 4.2: Applicability Conditions for Paired Renewable Energy *(3) The initial paired RE generation capacity at the project start date must be at least [10%] of the retired CFPP generation capacity._* 9.1: Proposed suggestions to include while computing CFPPBL(CFhis) *(Project proponent records Value applied Lowest value of the following:* *● CFPP BL CF val, 5-average: the average capacity factor of the baseline plant over the five most recent years at the time of validation of the PDD; OR* *● CFPP BL CF val, 3-average: the average capacity factor of the baseline plant over the three most recent years at the time of validation of the PDD; OR* *● CFPP BL CF, pre-decom, 5-average: the average capacity factor of the baseline plant over the five years before the CFPP's actual retirement; OR* *● CFPP BL CF, pre-decom, 3-average: the average capacity factor of the baseline plant over the three years before the CFPP's actual retirement.)* 9.1: Proposed suggestions to include while computing CFPPREF(CFave,y) *Average of 2 reference plants considered to ensure appropriateness and conservativeness.* _____ The initial paired RE generation of at least 10% of capacity during project start date is significantly low. From the perspective of an asset owner that has invested heavily in its energy transition mechanism and ramped up renewable energy capacity rapidly, there should be a mechanism to incentivize responsible behaviour. Taking the lowest capacity factor among the averages	- RE generation: the methodology prescribes a minimum limit and the upper limit. The quantification of the methodology incentivises the RE the earlier and larger it is deployed as Emission Reductions are based on baseline emissions of the CFPP but also the quantum of RE provided the grid by the paired RE - The lowest capacity factor among the options is to maintain conservative to ensure that project maintain environmental integrity. The average to two similar plants considers that if there are implications of CFPP generation from the policy and energy market dyanmics, it is reflected in the baseline emissions

	during the last 5 years of operations into consideration may lower the overall baseline emissions computation. Additionally, by taking 2 reference plants into consideration, the methodology may discount some other unique plant specific data points. Therefore, suggesting to incorporate a baseline load factor that incentivizes decommissioning certain CFPPs.	
22.	General feedback for: 4.3 Applicability Conditions for a Just Transition *m. V) Part of carbon revenue received from sales of carbon credits. [A minimum of 5% of the revenues expected from the sales of carbon credits must be allocated to implementation of the JT plan. This expected revenue must be estimated based on the financial gap between the project and the baseline retirement scenarios. The methodology does not set an upper limit of percentage of revenue from sales of carbon credits to be diverted towards JT plan implementation as monetary requirements may vary from country to country, asset to asset, etc.]* _____ Consider how the JT under the applicability conditions can be reconfigured The allocation of proceeds from carbon credit sales to the Just Transition (JT) mechanism should be flexible to illustrate and adapt on project-specific factors and be based on financial analyses, and stakeholder consultations. This flexible approach allows for a nuanced allocation of funds, ensuring that the financial contributions to the JT mechanism are commensurate with the specific circumstances of each project.	The flow of finances from carbon credits to JT is flexible. The methodology is only setting a very minimum over the course of period/JT implementation. The PP is free to structure the 2% in whatver way deemed appropriate, providing adequate justification. Further, as per the methodology, the JT must be fully funded irrespective of the carbon revenue.
23.	General feedback for: 4.3 Applicability Conditions for a Just Transition *h) A process to identify and implement options, provisions, and mechanisms to mitigate the loss of work and ensuring continued sustainable livelihood of identified stakeholders due to the project.* _____ Consider how the JT under the applicability conditions can be reconfigured The requirements to ensure a JT should not be part of the applicability conditions / Methodology as it does not play any role in the calculation of the emissions reductions. JT plans and implementation plays a key role in project specific roadmap instead and can be conditioned to affect awarding of the remaining carbon credits related to years of decomissioning and JT implementation.	The applicability ensure a robust design of the all the activities that consititute a project activity. The project activity for this methodology involves 3 parts, decomissioning of the CFPP, RE pairing and Just Transition, hence applicability of design of JT are also included. These applicability conditions ensure robust design and minimum considerations that goes into JT plan and its implementation

	JT plan can be discussed with stakeholders and government as required under local laws and regulations and can be overseen by a designated body/committee. Such provision would replace the applicability condition part on JT entirely. We can set basic principles after announcement of decommisioning to set clear key commitments. The only condition would be that there is a plan and an agreement for oversight and default events at a period closer the decommissioning in alignment with local laws and regulations.	
24.	General feedback for: 4.3 Applicability Conditions for a Just Transition *i) A justification of the appropriateness and adequacy of the:* *i) option/provision/mechanism to mitigate the loss of work, or any combination communicated and made available to the stakeholders identified, and* *ii) the timeframe for proposed implementation of the option/provision/mechanism.* _____ Consider how the JT under the applicability conditions can be reconfigured Options/provisions/mechanism will be affected by the repurposed use of asset since different alternative use of asset will have different levels of impacts to stakeholders The methodology did not mention how it plans/who will validate the representation of the IPP regarding its JT plan.	We are aware that every scenario would be different, hence, the IPP needs to justify the choices it has made to compensate the stakeholders and also that is appropriate choice for them and how it is adequate considering condition of the stakeholder impacted. The JT plan will be validated by the VVB that is validating the PDD
25.	Clarificationr required for: 8.4 Net GHG Emissions Reductions and Removals *GHG emission reductions are calculated as follows: GHG emissions reductions in year y (tCO2e) = Baseline emissions in year y (tCO2e) - Project emissions in year y (tCO2e) - Leakage emissions in year y (tCO2e).* _____ The Methodology should specify the context and rationale for (i) leakage emissions and (ii) the parameters used for determining baseline emissions. There is a need to ensure proper validation for precision in computing the amount of creditable reductions by expounding on why certain procedures	The language for leakage emissions is improved, including adding leakage emissions from paired RE solutions. The formulas for baseline are fairly clear and precise

	(e.g., 5- or 3- year average, reference plants) are employed in the formula.	
26.	Clarificationr required for: 9.1 Data and Parameters Available at Validation *Data Parameter: CFPPREF* _____ The Methodology should expound on the concept of baseline CFPP in relation to reference plants given different charateristics of plants (e.g., age, operational performance, etc).	The project developer would need to justify the choice of reference CFPPs based on age, operational performance.
27.	Strongly recommend for merchant CFPPs in wholesale markets to qualify in 1st release of methodology - especially because there is increasing (semi-)liberalisation of power markets in jurisictions that are coal-heavy (e.g., Philippines, China). Elgibility of CFPPs in wholesale power markets can still be assessed based on historical dispatch data as part of the baseline module exercise. In addition, there could be the edge scenario where the power market is liberalisaed after the project is registered, Rending merchant CFPPs eligible from the onset prevents sticky situations that can ensue from this.	as per row 7 and previously addressed questions in sheet 'key questions - methodology'
28.	For complex systems like power systems, letter and self-declarations seem insufficient to assure no negative effect on just transition. Minimally, a brief report on simulated impact using state-of-art modelling tools seem to be needed for good order.	Letter from system operator is a proxy to ensure that the entity who is responsible to manage the system has done its due dilligence and is satisfied. Usually, in such scenarios the system operator has comprehensive analysis. As this is about carbon quantification and not a standard for technical specifications, the confirmation that there is no negative impact because of the project on the grid is sufficient. If there are actual issues with retiring, the IPP will never get a letter. It is similar to getting a permit for solar plants.
29.	It is not clear in this section whether the clean energy replacements need to be implemented in the same (or continguous) plot as the retired CFPP. If distributed clean resources is allowed, the locational impact of the new clean energy assets need to be assessed on	The applicability and monitoring requirements confirm that RE replacements can be implemented at the site or any other site as long as

	the power system and will impact the build and operating margin to be used.	they are demonstrating comformacne to 1 or more conditons of pairing. Distributed clean energy is not allowed as per the methodologies referred for RE system.
30.	Project managers may require project to be reigstered with Verra before regulatory approvals can be obtained. As time taken for regulatory approval of clean generation planting should not be underestimated, the 10% paired threshold by project start date (typically 1 year from project registration?) could be a limiting factor.	The start date for the project is decomissioning of the CFPP. The projects can not be registered before regulatory approvals for CFPP is obtained. For RE - the only approvals and implementation of 10% is required as per the methodology. Other can be throughout the crediting period. Energy transistion are carefully carried out activities and are pre-planned and divestment decisions are taken much ahread of actual 'start date' of the project. The VCS allows 2 years from teh start date for project registration.
31.	Emissions reductions projected by plugging ex-ante grid emission factors to compute operating margin has a high-likelihood of under-estimating leakage. This is because the operating margin is expected to increase given system operator would have to rebalance the load and system services across remaining dispatchable assets that are likely to be ramped up/down to more inefficient segments of their heat curve. Projected emissions reductions should be computed using readily available power modelling tools instead, to better reflect the shift in operating margin due to the change in other generation operations	The grid emission factor to determine leakage is not fixed ex-ante. It is determined for each crediting period y as per equation 5. This considers calculating OM and BM every year and considers change in any scenario, including change in load of the impacted CFPP
32.	Determining EGGrid based on the baseline scenario electricity generated in year Y should factor for the expected shift in generation pattern that arises from the y-o-y increase in system demand. Naturally, it is not reasonable to assume the CFPP will generate 100% or 0% of the increase in system demand. Modelling tools should be used to determine with accuracy, the share of increased generation attributable to CFPP under the baseline. While the variable EGGrid suggests that analysis should be conducted on the grid level, this might be redundant since, the impacted generators could be	This baseline scenario change in potentially electricity production by the CFPP is accounted for by taking reference of two similar CFPPs

	limited to the zonal or nodal level. Propose for EGGrid to be limited to smaller grid sub-sections if there is sufficient evidence produced by project proponent and corroborated by system operator.	
33.	The leakage emissions equation is based on absolute energy generated (MWh) and does not factor for the intra-day differences in EFy. Hence different paired intermittent clean sources could yield the same equation outcome, even though they may be displacing energy production at different times of the day (e.g., non-dispatchable wind vs. solar) One way to simplify calculations without loss of generality is to segment the equation into peak vs. non-peak system intervals, to compute a weighted LEy that is more representative of reality.	While this could be a simplification of the use of dispatch data, however, this would require testing various approaches to define peak and off-peak to ensure it lines up with the intention of the simplification, this may not be as simple as a regular time window or a % of intermittent resource in the grid. Defining this in a way that is appropriate for many different regions and grids may not be possible in a robust fashion. This would be considered for future revision. For current version, no dispatchability is taken directly. This is also the case for RE projects in general. Howver, it is observed that is BESS is used with solar, it might allow for extra emission reduction as per ACM0002 - hence indirectly allowing project developers to have such systems
34.	Determining Grid Emissions Factor (EFy) as a blend of OM and BM of equally weightage is likely to misrepresent through oversimplifcation: (1) it disregards the locational impact of the paired clean resource, depending on which segment of the grid it is being deployed (see row 10). For e.g., a clean energy source deployed very far away from the retired CFPP, will mean the actual replacement energy will be procured from nearby operating sources which could have EFs much higher than the grid OM. The results could be further skewed if the clean energy source is actually displacing a cleaner source (e.g., gas plants) through priority dispatch. (2) system operatiors and generators tend to be given lead time on planting decisions, so depending on project design, a more accurate weightage of OM vs. BM can be computed.	This is a point that we considered, however locational and transmission constraints data is still fairly nascent and complex so the methodology is simplifying for usability and therefore is being conservative. The methodology could allow for the use of the dispatch data analysis OM approach to be used if it can be proven that leakage emissions are lower with this approach and this would incorporate the locational and transmission constraints by using ex-post dispatch data. However, this will be considered for the

		future version of the methodology
35.	Proposals from rows 12 to 15 point towards a more accurate computation of leakage using state-of-art energy modelling tools in addition to static carbon equations.This should not be waved off as cumbersome, but instead, reframed as using available tools to assist the design of a transition project that minimises leakage and generates credits of high-integrity. If the committee's assessment is that the difference in computation is not remarkable, there should be actual evidence of comparing the results from both forms of computation applied on a sample of pilot projects.	See answers above
36.	We would like to clarify whether markets in which various roles (such as power offtaker, grid operator, system operator, etc.) are carried out by different entities would be categorized as a 'regulated electricity market.' Alternatively, would only markets where these roles are performed by an integrated utility be considered a 'regulated electricity market'? Many markets in Asia, such as India and the Philippines, may not be eligible for carbon credits if the latter interpretation is applied.We would propose that the methodology would cover markets located in these regions as well.	The methodology now allows for 'deregulated markets' where different stakeholders may have a different role. However, it is limited to plants with long term PPA (20 years or more) For the ACEN transaction to be covered the methodology will need to expand to cover unregulated/liberalized markets. However, due to reasons noted previously, our methodological approach is not appropriate to extend to merchant plants dependent on spot market revenue for continued operation. The methodology could allow for credits generated on plants operating in a wholesale market generating revenue from short term PPA contracts. If these PPA contracts are with private off-takers, the baseline retirement date assessment will require updating and a new scenario and approach to incorporate this. This should incorporate at a minimum: - definitions and justifications for what is an acceptable

		length for a short term PPA to give comfort over the likelihood of contract renewal within the crediting period. - requirements for third party assessments for the likelihood of contract renewal and strict guidance on what a sufficient assessment must include. - there must be no increase in PPA price or PPA take-or-pay/utilization assumed in a re-negotiated PPA
37.	The present definition of a PPA characterizes it as a long-term contract between an Independent Power Producer (IPP) and a utility or electricity system operator acting as an offtaker. We suggest that PPAs involving private sector entities should also be taken into account. The current definition does not fully cover countries that allow IPPs to sell power based on short-to-medium-term PPAs with other private sector entities. To avoid issues of related party transactions, the definition could be restricted to only cover corporate PPAs between entities that are not related.	The definition of PPA has been revised. It also includes what is considered as a long term PPA CFPPs with shorter PPA or those acting as merchants would be considered for future revisions as per rationale above
38.	Section 4.1, Sub para 4(c) It is mentioned that "Merchant CFPPs that compete in wholesale markets to sell electricity or other electricity services are not eligible under this methodology version (future revision possible)". Since in some countries such as the Philippines, the wholesale electricity market is prevalent. It is, therefore, requested to include this option in the methodology so that project proponents from such host countries can apply the methodology.	See answers above
39.	Section 4.1, Sub para 7(a) Commitment to no new CFPPs for the State-owned utilities or IPPs - Is this expected to be a provision in the host country NDC? Section 4.1, Sub para 7(b) In what form are the IPPs and their consortium members are expected to demonstrate their commitment regarding no new coal power plants? Is this provision for the entity's operation in the host country or internationally?	- The provision can be in the NDC or via any other public information system. E.g., website of ministry of power or via govt notification. The methodology does not prescribes or limit such means, - It is relevant for host country. They can also have a committment via a public/press release. The methodology does not prescribes or limit such means as they may differ from case to case

40.	Section 4.1, Sub para 7(b) Based on feedback from market participants that we encountered, proponents would prefer flexibility to utilize coal-based technology, which allows for electricity generation with minimal or no emissions. We note that such technology is not currently available, but participants express a preference to have the flexibility to adopt such technology in the future if it becomes available.	This would require a different methodology based specifically on such technology. Such projects not part of the current methodology
41.	Section 4.1, Sub para 8(b) and (c) Rate impact analysis and reliability assessment – This requirement works somewhat contrary to the objective of achieving emission reductions and aims of the Paris Agreement. The idea being proceeds from the sale of offsets can bridge the gap between the electricity costs post-retirement.	- Rate impact and reliability assessment is to ensure energy security of the country while providing affordable and where possible clean energy to the consumers. The project aims to match what a country might have as ambition for paris agreement as this methodology ensures that there are emission reduction in the power sector while maintaining energy security
42.	Section 4.1, Sub para 10 It is mentioned that "Upon decommissioning, the proponent must conduct site reclamation and remediation." This condition may be changed to require the proponent to ensure that such land reclamation and remediation are completed (to the extent needed). The actual work may be conducted by a third party (such as a contractor hired by the proponent or any other third party selected by the offtaker/utility).	Such needs to be done as per the relevant national/local laws as per the requirements of the methodology.
43.	Section 4.2, Sub para 2(d) It is mentioned that the capacity of the paired RE projects must be no less than 40% of the capacity of the retired CFPP. Further it is mentioned that commercial operations start date of the paired RE projects must be planned to occur during the eligible crediting period, which according to the latest version of the VCS Standard is either a fixed 10 years period or 7 years renewable twice (para 3.9.1 VCS Standard version 4.5 updated 11December 2023). The draft methodology suggests that crediting period will be according to the VCS Standard. For the projects which adopt the renewable crediting period the proponents may add paired RE projects as late as 20 years post early retirement. Please clarify whether this understanding correct. Further, the procedure to inform and record these paired RE projects and whether and how these will be monitored needs to be included in the methodology. Also, it needs to be clarified whether these can be registered as separate emission reduction offsets	There is no guarantee that 7 years will be renewed, hence the interpretation would be for that 7 years when renewal type of CP is chosen. At RCP, the new version of methodology needs to be applied which may have different requirements. The VCS standard has requirements to prevent double counting and these RE plants will not be given credits for the CP of this project

	projects under Verra (in eligible countries) or other carbon market standard.	
44.	Section 4.2, Sub para 3 It is mentioned that the initial paired RE generation capacity at the project start date must be at least [10%] of the retired CFPP generation capacity. Such a requirement may not be feasible in certain cases, where RE is developed on the same site as the CFPP or when the RE is expected to use the existing substation of the CFPP. In such cases, it may be commercially feasible to develop the RE capacity after the decommissioning of the CFPP.	The methodolog does not limit the site at which the RE is built or paired. It maybe at a different site. The requirement also adds like a safeguard that ensures a min level of electricity service is already available to take on the vaccum created by CFPP retirement
45.	Section 4.3, Sub para 1(m)(v) It is mentioned that a minimum of 5% of the revenues expected from the sales of carbon credits must be allocated to the implementation of the JT plan. This should not be made a mandatory requirement, as other funding sources may be available to meet the total JT requirements. The proponent should have the flexibility to decide the best usage of the various funding sources towards (i) reducing the term of the CFPP; (ii) covering decommissioning costs; (iii) implementing the JT plan, etc.	The requirement is now changed to 2%. Howver, the methodology anyway requires the JT to be funded irrespective of the carbon revenues
46.	Section 4.3, Sub para 5 Spatial Project Boundary includes CFPP and the paired RE power plants. However, for significant emission sources entire electricity system is included. Project Boundary needs to be correctly stated as the entire electricity grid system in which the CFPP feeds power. Moreover, the location of paired RE power plants also needs to be clearly stated.	The project boundary requirements are clear The methodology does require location of the paired RE to be stated but does not explicitly require it to be in the same grid.
47.	Section 4.3, Sub para 6(iv) It is stated that “If the IPP proponent reneges on a no new coal commitment, either explicitly or implicitly through the application for permits for a new coal plant anywhere globally, the date on which it announces such intention, or applies for a new coal plant”. This does not seem to be practical especially for corporations with multinational operations.	Without this requirement there are no other safeguards to stop the financing for this transaction freeing up finance for additional coal investment elsewhere
48.	We note that for calculation of net electricity generation production, net installed capacity is being utilized. It is recommended that gross capacity should be used, as some generation from the CFPP would be used for auxiliary consumption. Using gross capacity provides a more accurate representation of emissions generated by the CFPP.	The requirements in the methodology for this conservative as net capacity is the capacity sent to the grid.

49.	Section 8.1 We note that, for purpose of calculating Average Capacity Factor of the CFPP, the lowest between: (i) Baseline CFPP's historical Capacity factor of CFPP; and (ii) Average Capacity Factor of at least two Reference CFPPs will be utilized. However, there may not be suitable Reference CFPPs available for the project. Or data may not be available due to confirdentiality related constraints. In such cases, the value to be applied for Average Capacity Factor for Reference CFPPS shall be obtained as follows: (i) if CFPP BL CF val, ave is greater than or equal to 60%, then the capacity factor is assumed to decline linearly to 30% over the baseline retirement date (ii)if CFPP BL CF val. is greater than 60% and the baseline retirement date is greater than 10 years from project decommissioning, then assume CFPP BL CF val, ave. declines linearly to 30% over its remaining technical life. These requirements may not be reflective of the emission reduction potential of the CFPPs. Therefore, we would suggest removing this requirement for comparison with Reference CFPPs. We also note that the calculation methodlogy for the Baseline CFPP's historical Capacity factor of CFPP is conservative, as it is the lower of the 3 and 5-year averages for such a plant.	- The data should be available with the system operator. There would be multiple ways to find the reference CFPP based on age, capacity etc. It may not be an exact match (e.g., capacity of 100 MW vs 120MW) but would provide a reference point for consideration
50.	Section 8.3 (Step 1) It is mentioned that "The additional electricity that needs to be generated from the power plants connected to the grid after the CFPP has been retired can be conservatively assumed to be the highest of the following: (i) the average electricity generated by the CFPP over the five most recent years prior to the project being registered with the carbon standard; OR (ii) the baseline scenario electricity generated in any year y of the crediting period." The first condition should not be considered as additional generation from the grid connected power plants after retirement of the CFPP should be equal to the baseline scenario electricity generated by the CFPP (assuming that the additional generation in the grid refers to the replacement power of the early retired CFPP).	The idea is to be conservative. But will be re-evaluated after public consultation 2
51.	Section 8.3 (Step 3a -1) It is mentioned that a subcritical coal default emissions factor must be applied for OM if any of the following conditions are met: • The mothballed coal power plant generating capacity connected to the grid is greater than or equal	Our approach is conservative in requiring a higher emissions factor in high risk scenarios to ensure we're not under-estimating leakage in the absense of available dispatch

	to the retired CFPP generating capacity in the project. • Reserve margin is greater than or equal to the regulatory-determined reserve margin target plus [10%], and [the unused capacity in the reserve margin is more than 50% coal]. These requirements are not reflective of the emission reduction potential of the plant. Instead ex-post calculations should be made prior to issuance of carbon credits using emssion factor of the grid.	data. However, to incorporate this feedback the methodology could allow for the use of the dispatch data analysis OM approach to be used if it can be proven that leakage emissions are lower with this approach and the UNFCCC tool is followed using ex-post data. In the scenario in Step 3a-1, we should continue to use the sub-critical coal emissions factor. This recognises the challenge of accessing proprietary dispatch data and the risk of underestimating leakage. Hence, this dispatch analysis approach might be considered for future revisions
52.	Section 8.3 The Leakage emissions are technically those emissions that occur outside the project boundary but attributed to the project activity . However, in the draft methodology it is specified that leakage emissions are owing to the incremental output from grid connected power plants. (i) In the estimation of OM it is not clear which of the options 3a-1 and 3a-2 or both are to be considered for estimating OM emission factor. (ii) Also, the acceptable source of data for estimating OM emission factor needs to be stated. (iii) Step 4 Inclusion of upstream leakage in gas fired power plants. It is not understood which gas fired power plants are referred to here.	For point i) the section can be re-writen, it does state that step 3a-1 is in x scenarios but does not clarify that step 3a-2 is in all other cases. Ii) agree, acceptable source data should be utility/SO data - this could be an issue in liberalised market - this may be a big problem iii) this should be re-written to specify all gas-fired power plants in the grid
53.	Section 9.2 Monitoring of Just Transition parameters: The frequency of monitoring of many of the parameters is suggested as “Continuous”. This may increase the cost of monitoring significantly. The frequency of the monitored parameters may need to be considered instead of "continuous" (whether realistically it needs to be monitored, daily, weekly, or monthly).	The reason it is mention continious because (for example) providing compensation to different employees may not be weekly/monthly activity. It might be at a different time for differnet stakeholders or category of stakeholder, also dependent on when the consensus is reached. Hence, continous implies that whenever such an activity is undertaken, the data should be collected and recorded

54.	The Module should provide more context in determining the baseline for the 5 Scenarios (e.g., sample computation and application, step-by-step process). Suggest also to provide a sample case study or test drive with a pilot case to illustrate application of the financially feasible retirement. Scenario 5 (financially feasible retirement date) is extremely specific and might not be captured by the prescriptive elements provided in that section. There is a strong overlap with the determination of activity-related data (e.g., energy production, etc.), free cash flow, and financial viability. The Module can consider requiring the CFPP to substantiate that the plant could run technically after decommissioning (e.g., another 10 years), and credit conservatively (e.g., for 5-7 years, or a minimum period that would be commercially acceptable to still get a price below USD 50 per tonne). This is to ensure that the crediting is predictable and still robust, without going through the whole unpredictable exercise.	We recognise the value add of a case study, however it is not traditionally done within a methodology. The addition of a case study will need to be considered by Verra. A spreadsheet (public facing) is being prepared allow for consistency in the process. As discussed previously, we disagree with the principle of this approach because it risks crediting plants that will have the financial incentive to retire even if they have the technical ability to keep operating. This is a significant over-crediting risk that could significantly reduce the integrity of the credits and inadvertently increase emissions elsewhere as a result of credit sale.
55.	<u>Proposed change:</u> The retirement date for a CFPP with a long-term PPA will be determined based on the project's specific context, including existing industry and market conditions. _____ The current deadline of December 31, 2023 is too narrow a time frame for project owners to seek extensions and will remove young/ middle aged plants due to existing variables, in process of urgent renewal, to be eligible. The case-to-case basis for determining the retirement date based on the PPA is to accommodate the nuances of deregulated markets and to ensure broader market participation Sample cases include: (1) Project's PPA is ending before 2030: Project proponents will be eligible to consider extensions beyond the PPA end-date and seek extensions up to 2027 or beyond. (2) Project has existing PPAs: The original PPA term should be utilized. (3) Project is procuring new PPAs: An extended timeline can be considered.	This safeguard is relevant when the methodology only covers long-term PPAs (i.e. 20 years) when it is reasonable to assume that the PPA length and terms allow for capital repayment. This reduces the moral hazard risk that the methodology encourages the re-negotiation and extention of PPAs. The current requirement of 2021 is conservative. Other options maybe evaluated for future versions

56.	Proposed change: 5.5.3.7. Where a carbon pricing scheme exists or is planned in the host country, the project proponent may include the costs of carbon and determine the carbon price as follows: _____ Additional context is needed on computation of feasibility of retirement and context of RE bundling especially for deregulated markets in computing for financial metrics. It's important to clarify that a typical carbon credits methodology (i.e., this document) won't directly calculate the cost of carbon for the project itself. The methodology focuses on verifying and quantifying the project's emission reductions or removals, ensuring their accuracy and credibility. While the methodology doesn't explicitly calculate the cost of carbon, it lays the foundation for its eventual market value. Buyers will consider the methodology's rigor, the project's impact, and the overall market dynamics when determining the price they're willing to pay for credits. Moreover, the carbon pricing scheme mentioned here does not refer to the VCM or Art. 6 markets, but refer to cost of compliance under a carbon pricing scheme such as an emission trading system (ETS) or a carbon tax or similar. These costs shall eventually be factored in in computing the price of carbon regardless of which pricing scheme is used.	Cost of carbon refers to mandated carbon pricing schemes such as an ETS or a carbon tax. Where there is a compliance carbon pricing scheme that covers the asset, any carbon credits (VCM or Article 6) must not be surrendered for compliance with the scheme. The methodology is not intended to define the approach to pricing carbon, in line with existing VCM norms.
57.	It is mentioned that PPA extensions executed after December 31, 2023, are not eligible, and the original PPA term must be used. This may not be reflective of the commercial arrangements prevalent in countries with strong merchant markets such as India and Philippines. Typically, IPPs in these markets sell power based on short-to-medium-term PPAs, which are continuously rolled over. In the absence of eligible carbon credits for the period after rolling up of the PPA, IPPs may not have sufficient commercial incentive to early retire the plant.	Merchants CFPPs maybe considered in future versions of the methodology
58.	Suggest to have ability to frontload award of credits once the CFPP is fully dismantled and the replacement clean energy is operational	There is a strong risk that emissions reductions are over estimated if the generation of RE power is lower than expected and if the emissions factor of the grid is higher. Therefore we disagree with this approach.

59.	Include scoring mechanism that incentivizes early coal retirement. A tiered structure is proposed for attributing baseline emissions [and carbon price]. This structure considers two broad variables: 1) Age of Plant: Plants aged less than 25 years [as of retirement date] will be positioned at the higher end of the [quantified emissions reduction] [carbon price] range. This discounting mechanism encourages the early retirement of relatively newer coal facilities. 2) Renewable Energy Replacement: We need to undersand the additionality consideration for RE plants given that the main intent of awarding CC for CFPPs is based on emissions avoided by reduced operations. Considering REs is more to have additionality and ensure credible and viable replacement of CFPPs. However, due to low capacity factors of RE technologies it will be hard to trace them 1:1 - more so in percentages. This is why existing financing frameworks focus more on tracking use of proceeds than actual grid security knowing the limitations of linking these. Asset owners replacing coal with renewable energy more aggressively, both in terms of no. of years and capacity should receive a premium. This premium aligns with the principle of greater additionality, fostering a transition to cleaner energy sources. The premium is contingent on the extent and pace of the transition.	Our interpretation is that this is a potentially good marketing approach but not something that would make sense in the methodology or at least not for the current version. Regarding RE - The projects with higher RE will get higher credits, based on actual generation of RE
60.	**Scoring Mechanism:** A data-driven approach will be adopted to determine the high end of the range. The scoring mechanism assigns points to various variables, influencing the final range of emissions replaced and baseline carbon price for the project. Key considerations include: a) Plant History: Assessment of historical emissions and performance. Assign scores based on the range of emissions, taking an average of maximum emissions potential into consideration. b) Additionality: Assess the level of additionality associated with the early retirement and replacement with renewable energy. Higher additionality will contribute to a higher score and, consequently, premium. Higher additionality scores result in an expanded carbon price range. c) Transition Pace: Examination of the speed at which the plant transitions to renewable energy. Swift transitions contribute to a premium and an elevated range. d) Just Transition Principles: Incorporation of just transition principles, including stakeholder engagement, worker support, and community impact. Adherence to these principles results in a higher score.	As above

	e) Social and Economic Contributions: Assessment of contributions to local communities and economies during and after decommissioning. Positive contributions lead to a higher score. The proposed scoring mechanism allows for a nuanced evaluation, ensuring that projects demonstrating higher environmental, social, and economic responsibility receive increased benefits. Regular reviews and adjustments to the scoring criteria will maintain the objectivity and relevance of the tiered structure.	
61.	Suggested rewording: "A long term contract between an independent power producer and an off taker. In this methodology, PPAs refer to agreements in which there is an off taker, such as a utility, a electricity system operator, or an entity directly supplying to a customer with a sizeable demand, that purchases the output capacity of the plant in full or partially."	We recognise that this may be necessary for the SLTEC plant to be eligible, however, as per the previous tab, this will require an update to the baseline retirement date assessment for this scenario.
62.	This metric seems to be too complex, bereft with assumptions, and ultimately would boil down to real time market conditions and judgement call. Would the methodology consider a simpler framing of retirement date, and apply time degradation principles and parameters, eg. the older the plant gets, the less credit? Defining an absolute maximum age and early retirement year (eg. 35 years and 2040) could cover much of the baseline issues. Baseline retirement date can be defined as earliest of regulatory determined CFPP phaseout, CTM commitment, 35 years operational life, and year 2040. Then apply "reward and penalty system" to the retirement period and deemed capacity factor / emissions avoided. Not all Transition Credit projects are created equal, but at the end of the day, a carbon credit is a carbon credit. Once traded in the market, pricing becomes primarily a function of supply demand rather than the quality of the project. This notwithstanding, it is good to nevertheless incentivize asset owners to deliver high quality projects (eg. more aggressive retirement plans and renewable pairing), by differentiating and rewarding higher quality projects with higher volume of credits, albeit within reasonable parameters. In order to address these nuances, a system of 'reward and penalty' or points system can be employed across two dimensions: (1) determination of baseline retirement date of CFPP, and (2) quantification of estimated emission reductions. Rather than apply a conservative approach (eg. lowest among certain variables) for all projects, it is recommended that a range of values is considered,	- Financial metrici is an important subset of calculating baseline retirement date as it takes into consideration impacts of RE cost of electricity vs cost of operation for the CFPP. We disagree with the premise that age is a more effective proxy than financial feasibility for estimating early retirement. This approach risks crediting plants that will have the financial incentive to retire even if they have the technical ability to keep operating. This is a significant over-crediting risk that could significantly reduce the integrity of the credits and inadvertently increase emissions elsewhere as a result of credit sale. The baseline scenario date considers lifetime via CDM tool 10 without explicitly mentioning a min or max time. - The fact that a carbon credit is a carbon credit means it's important that we are not generating credits where there are no emissions reductions. The methodology is already

	with the most conservative approach defining the lower book end, and a more liberal approach defining the higher bookend. Each project will then be evaluated and will obtain a value within the spectrum / bookends, depending on the quality of project.	structured in this way by quantifying and incorporating the leakage emissions from grid dispatch for projects with less than 100% generation coverage across the timeline of retirement. the quantum of carbon credit is determined by the how early the RE is deployed and how much it is deployed. The approach seems like a marketing approach rather than a robust approach to estimate accurate or conservative emissions reductions.
63.	This might need discussion particularly the inclusion of the financially feasible retirement due to reasons explained above as well as the use of end of long-term PPA as possible baseline retirement date. This might be too complicated and not focused to the core, leaving a lot of room for interpretation, which impairs predictability of the project development and might not lead to robust and unambiguous results. **Sample approach: Determination of baseline retirement date of CFPP** a. For CFPP that is retired on or before reaching 25 years of operations, baseline retirement date is the earlier of (1) regulatory-determined CFPP phaseout date, (2) committed coal transition mechanism – retirement date, (3) end of 40 years of operations, (4) end of year 2040 b. For CFPP that is retired later than completion of 25 years of operations, baseline retirement date is the earlier of (1) regulatory-determined CFPP phaseout date, (2) committed coal transition mechanism – retirement date, (3) end of 40th operating anniversary, (4) end of year 2040, (5) end of technical life, (6) financially feasible retirement by a regulated utility	As above, we disagree with the approach of assuming a plants age determines it's baseline retirement date. This approach risks crediting plants that will have the financial incentive to retire even if they have the technical ability to keep operating. This is a significant over-crediting risk that could significantly reduce the integrity of the credits and inadvertently increase emissions elsewhere as a result of credit sale. This could undermine market faith in the integrity and emissions reductions associated with fossil fuel transition credits in general.
64.	The methodology appears to calculate the baseline generation using different calculation approaches, which leads to inconsistencies. It is recommended to review the calculation approach and strive for simplification and consistency in the determination of calculation parameters, specifically the baseline electricity generation. **Sample approach: Quantification of estimated**	By requiring the earliest of the possible baseline retirement dates, the methodology incorporates all of the potential drivers of early retirement. We would argue this is not inconsistent, but thorough and conservative.

	emission reductions Bookend – Low: Adopt current definition (lowest between baseline CFPP historic capacity factor and two reference plants); for example, value could be 1.4 million MTCO2 p.a. Bookend – High: Highest capacity factor / emission year for CFPP; for example, value could be 2.2 million MTCO2 p.a. Variance between bookends: 800k MTCO2 As a default, each project will be awarded at the lowest end of the range / bookend, but could increase depending on bonus points, depending on how the project scores across each of the three dimensions or variables, and how much each weight is assigned to each variable.	The approach described does not give comfort over the accuracy or conservativeness of estimating emissions reductions.
65.	The paired RE projects are essentially subject to MRV and thus generate the emission reductions. There is lose mention that the paired RE installations must not claim credits from supplying electricity. It is suggested to improve and strengthen the pairing of the CFPP with RE installations, specifically in cases where the two assets reside in different books.	This double counting requirement is considered at the standard level.
66.	Change of ownership prior to decommissioning must not disqualify an IPP from receiving transition credits for as long as the following conditions are met: 1) The CFPP retirement schedule submitted in the application will not be affected; and 2) The relevant contractual arrangements are in place to ensure that the transition credits will be attributed to the rightful entity after the change of ownership.	We see no immediate challenge with a change of ownership prior to retirement unless it has a material impact on plant operations, in which case the baseline scenario operations approaches should incorporate any downward trend in utilisation.
67.	4.1. 7) ii. an IPP and the jurisdiction they operate in, should both commit to no new power plants. 4.1 9) Major plant equipment may not have to be entirely disposed of, they could be repurposed to fire biomass 4.2 does the RE pairing need to be within same jurisdiction, same gird?	- It is not possible that where a project is being done by IPP, we can put requirements on the jurisdiction. However, an alternate is added as 4.1.2 that the host country should have an NDC commitement for decarbonisation of power sector. - Yes, it can be done as per the referred requirement - Yes. Added a line that 13 that replacement to be in the grid. and clarified in the definition where the word host country is added.
68.	This is a strange question. The methodology already refers to national or subnational commitments, including NDCs. I would assume that a jurisdiction's energy plans fall under such policies or commitments, and therefore are taken into account in determining	Thanks. Added a requirment on host country having NDC for power sector

	the baseline. If unclear, then this should be explicitly referred to in the methodology/module.	
69.	In most cases, asset life assessments will default to accounting standards of the country/market in which the asset resides. However, there are some jurisdictions where asset lives may have been shortened or extended due to reasons other than practical physical limitations on asset operations. These may lead to unrealistic or insurmountable hurdles to credit project economics.	- CDM Tool for technical life does have a default value. It is unclear what other reasons are mentioned for life of an asset. If it is regard to economic life and considerations of revenue, the module does provide relevance for calculation of required revenues for a particular time. No change made in the module for this comment
70.	Explicitly recognize regulatory and political trends that may impact how just transition is considered and impacted during process of CFPP implementation Where JETP is involved, outline how it is also being affected by market conditions Ensure that there is a systematic process where baselining is required Take into account that the coal policies by the investors and financiers are mostly aligned with IEA pathway (no more coal by 2030 for OECD countries and 2040 for non-OECD countries). The baseline retirement date to be aligned with NDCs might not be sufficient.	- at standard level - it requires the project to follow all relevant local, national legulations, this will include any and all related to CFPP. - JETP impacting market is not part of methodology - baseline revalution is required at the standard - and will be renewed at RCP as per verra rules - if and how these policies are implemented, this will be reflected in the baseline electricity production - that is why methodology mandates selecting two reference CFPP as those will show how coal oriented policies will impact CFPP production. No change made in the module for this
71.	No, these emissions should not be considered negligible. First, “embodied” or “embedded” emissions from the supply chain of renewable energy infrastructure can be significant, so should be internalised. Incidentally, this also mitigates the risk (p.46) that investment materialises only for retirement of a given coal asset, not its replacement by renewables capacity. Monitoring, considering and reporting on the emissions of both together can improve the transparency of the investment as a	- We have referred to CDM Methodologies to consider any project emissions. So any emissions related to biomass and biogas would be automatically included in the net GHG benefit calculations.

	whole (and therefore facilitate engagement of financiers). Bundling of retirement and renewables transactions also may increase enterprise value of prospective credit issuers, as the increased revenue from renewables investments free up capital for debt servicing. Second, if Verra does decide to allow eligible paired RE to include biomass and biogas (which it ideally shouldn't), the emissions (including methane) from these sources can be significant. Treating them as negligible would undermine the integrity of Verra-approved transactions.	- For embodied carbon, until now, these are considered negligible even as per CDM for greenfield projects. Moreover, we anticipate that in many cases the paired RE will be RE capacity that though planned for, is brought forward (ie accelerated coal decomissioning resulting in accelerate RE commissioning). In such cases, there are no extra emissions due to RE constructions. However, the methodology refers to CDM Methodologies. Hence, if such methodologies end up being revised by the UNFCCC to account for embodied carbon, then embodied carbon will be accounted for in the methodology. No change has been made in the methodology because of this
72.	The answer would depend on the type of technology used for replacement RE. Operationally, biomass, wood based and WTE projects certainly appear to have an environmental impact if not designed and planned correctly. Use of approved methodologies to account for those impacts are warranted in adjunct to this Methodology M0233. The more established technologies of wind and solar have more well studied impacts and developed processes for assessment of the same. On carbon intensities, multiple studies (linked below) have shown that the carbon footprints of solar and wind equipment are negligible. For high emission intensity power systems, the emissions reduction benefits are such that the carbon intensity embedded in a solar panel is offset by emission savings in as low as 3 months (from a life of 25 years). In case an approach of a conservative deduction is to be taken, it should not be more than 3% (already 3X the above)	Refer to comment 7

	Carbon Emissions of Solar Modules: Low and Further to Fall | BloombergNEF (https://www.bnef.com/insights/34859) What is the Carbon Footprint of Offshore Wind? | Ørsted (https://orsted.com/en/what-we-do/insights/the-fact-file/what-is-the-carbon-footprint-of-offshore-wind) For RE replacement plant construction on greenfield sites, consideration should be given to the carbon impacts from change in land use, particularly if extensive vegetation clearance is required or wetlands impacts are incurred. If there are extensive civil works that greatly modify topography or require rock removal, the carbon intensity of those operations may be material. Site clearance and modification could be substantial with projects with large footprints, like those that employ biomass sources/combustion, hydroelectric or geothermal technologies.	
73.	The 20% threshold for designation as common practice can continue to be used. The definition of geographic area may need to be specified more clearly, with the debate being whether a narrow (near the CFPP site) or broader area is to be considered. A broader area, perhaps national boundary, would seem more appropriate here since CFPP closures would almost certainly be very relevant to the overall national energy planning in most countries.	Applicable geographic region - added to the module
74.	Yes, a new common practice assessment that indicates whether the revenues from carbon credits are a decisive factor in the earlier phaseout would be necessary in addition to regulatory surplus and feasibility reviews. For instance, including benchmarks for evaluating financial returns in the absence of carbon revenues would give clear evidence that the project would not proceed without these funds. This level of specificity could add credibility to the credit generation process and reinforce the environmental integrity and hence prices of the credits. Transparency on subsidies for fossil fuels provided by the government, specifically for fossil fuel sources.	Thanks for your comment. Refer to 9
75.	The following comments do not target additionality specifically but more the overall considerations during re-crediting: a) While a new crediting period should account for the actual carbon reduction achieved by the project, if the net carbon reduction benefits fall short by more than some threshold percentage, absent a firm and achievable plan to remediate, perhaps the credit facility should not be any longer considered. b) Adjustments to the next crediting period should be cautious in how negative changes may impact the JT	- new CP will acount for actual carbon reduction as baseline will be revaluated. If baseline revaluation shows no credits, no credits will be issued - This will not affect JT as methodology requires the JT to be fully funded even without the carbon revenue

	support element of the overall project. Perhaps that JT share derived from re-crediting should be left whole (as the original) while project-party related credit benefits are reduced (in the case performance was lower than expected)	No change made in module or methodology for this
76.	At renewal of the crediting period, the project's financial, regulatory, and technological additionality should be reassessed to ensure it still depends on carbon credits for viability, isn't mandated by new regulations, and hasn't become standard practice. Further, social safeguards may be reviewed to confirm ongoing adherence to leading practices on just transition. The project's monitoring phase should assess if baseline updates are needed at the renewal stage, as technological, regulatory, or market changes could make previous emissions reductions overestimated without adjustment.	- Financial, regulation, technical will be assessed as part of baseline revaluation.
77.	This is not a question that can be answered in the abstract, as the costs for this will vary considerably plant-to-plant. A robust, asset-based appraisal of the net benefits and costs associated with skills and training, ecological protection, water quality improvement, gender-based outcomes, etc. should inform the price of the carbon credits to fully fund the transaction. Academic research, using the Tenayan Riau CFPP plant as a case study, proposes a "sustainability premium" and could provide a useful template. Factors they consider when assessing the costs and benefits of coal-retirement-with-renewables replacement include: public health damages, water quality (mercury reduction), smog/visual improvements, change in water use, the social cost of carbon (taking the US EPA's $190/metric ton value), changes in tax revenue, etc. Taking all of these into account – before comparing them to decommissioning costs – will determine the proportion of total investment that should be devoted to Just Transition. Arbitrarily setting a share will be counterproductive.	Thank you for your comment. No change has been made because of this comment
78.	It is a bit of a challenge to see what a reasonable balance is for this. As we suggest in our general comments, worked examples modeling the overall credit system of benefits governed by this methodology would be helpful to see what scale of numbers we are talking about across all elements of the crediting activity. Clearly higher shares allocated to the JT community would be beneficial for getting those groups on board, while also conveying benefits from the transaction activity. But they can't be so high as to negatively impact the financial contribution to	Thank you. This is exactly we also think, that is why, for now. we say that JT plan should be funded regardless of carbon revenue, but we also mandate 2% carbon revenue. 1% is consider material for large scale projects as per VCS standard, to raise ambition, we have added 2% min revenue.

	financing the transition projects (i.e. undermining the additionality)	No change is made in meth due to this comment
79.	This cannot just be answered in the abstract. Verra has created a framework that addresses just transition elements fairly thoroughly, but it will have to depend on on individual plants or markets.	- Refer to comment 14
80.	Current data suggests that emphasis on climate transition plans and funding has predominantly been on infrastructure, failing to adequately prioritize 'People' in the transition process with only <1% channeled to people centric levers. A minimum of 2% of net revenues may be too low to meaningfully support just transition initiatives, particularly if these involve extensive economic diversification, retraining, or community-based development. The lack of an upper limit is acknowledged and appreciated; however, it may be more beneficial to define leading practices of people-centeredness of the transition plan for each defined stakeholder group and consider allocation of a just transition fund accordingly. Further, including additional local and regional considerations would support flexibility and allow for just transition allocations to be determined on a case-by-case basis.	- For the reasons you mentioned, we have added a requirement that JT plan should be funded regardless of the carbon revenue. 1% is consider material for large scale projects as per VCS standard, to raise ambition, we have added 2% min revenue. No change is made to meth due to this comment
81.	Emissions from electricity production from new RE It would seem that including N2O in the net emission calculations might be important. Certain combustion processes such as use of landfill gas in turbines or WTE processes hold the potential to generate oxides of nitrogen depending on properties of the inputs or the nature of the combustion process design. It would be better to include N2O just in case; if they are indeed negligible, then they wouldn't factor into the netting equation anyway. Emissions from electricity sourced from the grid For grid sourced electricity N2O should definitely be included as they may not be negligible. For example, blending hydrogen into methane gas for use in gas turbines or ammonia into other coal-fired power plants boilers could greatly increase NOx emissions if appropriate plant modifications and/or regulation are not put in place. If the host country or government is not regulating those to an adequate level, you want to be sure they are taken into account within the Methodology given their GHG forcing potential.	- N2O emissions are deminis as per approved CDM Methodology for Landfil - ACM0001. If in the future they are included, we can include them - The grid emission calculations are considered based on standardised tool such as CDM Tool or VCS Tool. We have not come across such as case. If it becomes more common, standardised tool such as CDM Tool and VCS Tool would need to be updated which is beyond the scope of the methodology
82.	Thank you for the opportunity to respond to the M0233, Draft Methodology consultation. We recognize the market's shift towards using credit instruments as complementary tool to address residual emissions reduction, not as a replacement for physical emissions reductions. We appreciate the	- thank for your comments. These are not methodological questions but more deal structuring and claims, which is out of the scope of the methodological requirements.

	methodology's emphasis on carbon permanence, leakage management through paired renewable energy, and baseline accuracy. Though, the two barriers to the demand for these instruments remain 1) can buyers commit funds up to 7-10 years before the credits are realized or verified 2) Without clear standards or a fixed method for accounting for these, how can a buyer effectively communicate their sustainability efforts? High-quality credits are essential to drive demand for novel instruments. We appreciate the focus on just transition as part of the crediting process and believe this is crucial for stimulating demand in unconventionally structured instruments such as the credits associated with the accelerated retirement of coal-fired power plants. We acknowledge that the Integrity Council for Voluntary Carbon Markets (ICVCM) has closed its Core Carbon Principles (CCPs) program assessment portal, with plans to reopen on April 1, 2025. We hope the Integrity Council will include the draft methodology in its next assessment after the portal reopens. Attached below are feedback on the individual sections. We appreciate your consideration of our comments and look forward to the outcome. Thank you for the opportunity to contribute our views. AIGCC	- Methodology can be submitted for IC VCM after it is approved No change has been made to the methodology because of this comment
83.	Term of agreement in definition of PPA: required to be 20 or more years. 20 years is a long period, and we believe similar outcomes can also be attempted/achieved with PPAs of 15 years or longer. Just as example, an 18- or 19-year agreement is still pretty long. Perhaps its best that the economics of the deal determine its likelihood (which would improve anyway as the extant PPA lengthens). Potentially a prospective retirement deal could be structured to work within shorter timeframes; that risk would fall to the owner/offtaker to structure a deal that successfully (a) plans for the shutdown, (b) plans for the replacement capacity, and (c) creates an appropriate just transition plan. The economics of the deal would create minimums for viability, considering all of the costs and risks that needs to be addressed	- our choosing of 20 years to classify "long term" based on discussion with stakeholders and sectoral experts who mentioned 20-25 years as long term PPA. Other PPA period, less than 20, can be addressed at a later date/next version of the methodology. As of now, we do not have a pilot project to know what the consequences could be. - added word typically, to not exclude certain markets that were mentioned

	to the satisfaction of all parties. Definition of "System Operator" It is not necessarily the case in all markets that the system operator is independent. Indonesia and Vietnam are examples. You may wish to modify this definition either to eliminate that part or to say that they are "typically" independent. Defining the system operator as necessarily "independent" may wrongly preclude applicability of the methodology to some markets.	
84.	Stance: eligible plants began construction pre-December 2021 Climate Pact. This is positive. It is stronger than RMI/CPI's Guidelines, which focus on final investment decision pre-2021. Good mitigation of moral hazard. Stance: Captive is omitted (only grid-connected). Negative. RECOMMEND Include captive coal plants in methodology, given the share of the market in countries like Indonesia that they account for. Stance: CFPP must have demonstrated utilization over preceding five years. Negative. This is too vague and could potentially be exploited by very low capacity factor plants. RECOMMEND Specify an average over the previous five years. This average could be around the plant median or mean values (optimised so not to exclude the majority of plants). Stance: Renewables must account for 40% minimum of the coal capacity that has been retired. Negative. This figure could be higher, so as to guard against emissions leakage concerns (lost capacity being made up for by the rest of the energy system), but how can a number be chosen that isn't arbitrary? E.g. Gold Standard's methodology only allows crediting once at least 50% of the capacity is replaced by renewables. RECOMMEND Provide rationale and justification for 40% figure, or raise ambition to mean a 1:1, like-for-like capacity replacement. This is notably advocated for by TRACTION's recent interim report. Stance: Eligible "RE generation capacity" technology types include landfill gas, biogas, biomass, waste-to-energy. Negative. The list of paired renewables should only include legitimate	- thank you. - As of now, we do not have a pilot project on captive coal,so we may not have all the requirements correctly for captive CFPP. We can revise the methodology in the future to accomodate captive CFPP - This is addressed indirectly in the methodology. Section 8.1 the historical capacity factor is seen to determine the future baseline electricity production. If the CFPP has very low utilzation, the baseline emissions would be low, and rightfully so. - The number is not based on any particular study. The way our methodology has defined this based on stakeholder feedback - such as those related to leakage emissions, until the project has much higher degree of pairing, the GHG impact would not come out as positiive. We can not comment on any other methodology. The number has now raised to preferably at least 50% to increase ambition. - Biomass co-firing is not allowed. Landfil, biomass,

	renewable replacement types, including solar, wind, geothermal and tidal. Sources of energy such as biomass cofiring, both within key geographies like Indonesia and Philippines, as well as in other countries like the UK and Japan, are highly contentious and could arguably be used to extend the lifetime of coal plants. RECOMMEND Inclusion of combustion methods or cofiring risks heavily undermining the entire methodology, as conversion to gas should not be considered "retirement" of an asset, especially given recent high-profile research suggesting that the supply chain for LNG could make it have even higher GWP per unit of energy produced than coal. Stance: "Pairing of RE generation must be established through one or a combination of the following pathways... [contractual, financial, on-site, regulatory, counterfactual plans]". Negative. Options A and B would allow contractors/project proponents to simply buy any other PPA on the market for renewables, rather than it being explicitly linked to the decommissioning of the coal project. Option D would mean a regulator with an incentive for crediting to work could arbitrarily identify any given new RE project coming online as ""the replacement"" for any other given decommissioned coal asset. Option E would be very difficult to prove counterfactually: in the case the RE came online earlier, there would be extreme complexity in the quantification of the displaced emissions. RECOMMEND explicitly highlight on-site pairing of RE as the ideal option (albeit this not always being technically feasible). Provide more detail for how the other options could be proven by a regulator/project proponent to be additional, and independently verified by Verra. Stance: Very strong thresholds for Just Transition impacts, consultation, etc. This is positive.	WoT are included becuase they are dispatchable sources, unlike solar pV and wind. This is essential for a project that may want to like for like pairing and grid stability. The emissions from operations are considered appropriately in the methodology. -Pairing: All options: Pairing under all options needs to be i) described in the PDD which is turn is subject to a public stakeholder consulation ii) substantiated by the project proponent iii) validated by the VVB and iv) approved by VERRA. If pairing cannot be proven then it will not be possible to claim that RE generated during the crediting period results from the coal plant being decomissioned. Comment on option D Generation capacity expansion expansions plans are developed and issued many years in advance and are e publicly available. Moreover, the scenario described in the comment assumes that a regulator would set out to act in a fraudulent manner. This would alos result in substantial reputational damage to a host country and its standing in the international carbon market, which would undermine its own climate policy. Hence we deem that the scenario described, is from a practical standpoint one that is very unlikely. Option E This is not an issue because displaced emissions are determined

		once the paired RE plant operational but only once the CFPP has been decommissioned. The emissions reductions are determined using monitored data, including the amount of electricity generated by the RE plant and determined ex-post. There is no need to recommend that pairing be onsite: Any asset developer will try to make use of existing power installations, e.g. connection to the grid to the extent possible but this would only make sense if doing so proves more attractive than building the REplant elsewhere. -
85.	Section 4.3 – Just Transition A) Just Transition (JT) elements Given the scope and complexity of JT interventions, it may be useful to employ as a starting framework the social safeguard precautions and protocols routinely used by multilateral development banks (MDBs) and regional development banks. Those principles can then be augmented wherever VERRA and other stakeholders feel current MDB safeguards are insufficiently detailed or lack specificity for the purposes of just transition. Such enhancements might be to make more robust offers of re-employment/alternative employment, supporting impacted businesses, opportunities associated with the newly created RE projects, extending timelines for implementation, and/or enhanced benefits/support above what MDB formulas/specifications currently provide. We would recommend this course of action because – a) MDB's safeguards processes are quite robust in our opinion, supported by a number of evaluation, planning, engagement, grievance/dispute, protection, compensation and monitoring mechanisms; b) leaning on the frameworks and mechanisms MDBs have established minimizes the risk of potential gaps in the design, communication, grievance, or	- Those frameworks and more were referred during establishing of requirements. As a standard practice across in carbon markets, something can be referred as principle but requiremetns for mandatory compliance need to be established within the standard/methodological fraemwork. - Thank you for your comments on comprehensive. We do not have models as the cost could vary from country to country, plant to plant and multiple other factors. Based on our pilot projects, these costs are not deterring to the project developer. They intend to ensure that any risk to the

	administrative oversight; and c) governments are familiar with those mechanisms and how to administer and monitor them, which could be advantageous. We also note that the World Bank's Safeguard Policies (https://www.worldbank.org/en/projects-operations/environmental-and-social-framework) form the foundation of the Equator Principles (https://equator-principles.com/resources/), to which many prospective financiers of deals contemplated by this framework may be signatories. B) Comprehensive and Complex JT Interventions We note that the proposed interventions and actions in the VERRA framework are very comprehensive and detailed. While reasonably complete JT elements are important to assure equitable balance, they should also strike a balance so as not to deter even attempting an early closure and transition investment. Any modeling done to estimate what these costs might be for a typical project and the timeframe over which they would be implemented would add a lot of value to the structuring process. We also have some specific comments/questions on the Just Transition elements of Paragraph 20. *xiii (a). Salary compensation Is six months quantitatively relevant/appropriate? How does it compare to the duration of transition activities? It is helpful to keep in mind that, in most cases, unless totally new jobs are identified in different industries/sectors, there could be insufficient replacement jobs between a CFPP and an RE operation. Thus, affected workers may need more time and support to find their alternative employment. *(f) Sharing carbon credit revenue The concept of affected parties sharing in carbon credit revenue is progressive and a laudable element of this framework. However, given the challenging and potentially long-term work of the JT aspects of the overall structure, we suggest that the base budget for JT activities is, at first, allocated without factoring in the carbon credit revenue. A proportion of carbon credit revenue can be set aside in addition to the base, funded JT budget. In the event the carbon credits become out of the money, get cancelled, or for some reason fails, it should not impact the monies set aside for just transition, as these activities will need to persist regardless of what happens to the base project. Potentially, the carbon credit revenue share for JT could go into a sinking fund or reserve fund to support JT activities. Such an approach could pair well with the sub-section that follows in the Methodology on	relevant stakeholder is addressed adequately a - Six months salary is the min that is proposed as compensation for termination, as one of the options, provisions offered. It is not necessary that it will alone it will be adequate. If not, the CFPP owner needs to combine it with other options and provisions to make it appropraite for the relevant stakeholder. E.g., providing skll development support and suppport for finding new jobs until found one. - Sharing of carbon revenue: The base budget is calculated without carbon revenue. As per the methodology, the JT needs to be fully funded regardless of the carbon revenue. - Periodic review: It is not possible to mandate a separate entity. but the methodology does recommend a separete financial account and procedures to manage finances. So because of that finances can be more transparent. A separarte structure and periodic review should make better and efficient. No change is made due to this comment

	additional JT finance during implementation. *Procedure for periodic review It would be appropriate to require the JT operational budget be separate from corporate operations of the underlying project, ideally within a separately incorporated entity. Such an approach ensures that the money is ringfenced and nothing stands in the way of allocations to programs supporting beneficiary parties. A separate structure for JT operations allows for a more transparent management and administrative system, permitting the integration of valuable third parties (NGOs, service providers) in JT service delivery, as well as making it easier to audit.	
86.	Verra's draft methodology requires that the pairing of RE generation be established through one or a combination of five different pathways (see 15.iv on p.10, Methodology). Pairing conditions We find the pathways for contractual pairing (Option A) and financial pairing (Option B) problematic. Renewables built under these pathways may not in reality be additional to what would have happened without the project. E.g. the entity buying out the coal PPA could buy a PPA for a renewable project that would have happened anyway. Verra's draft methodology requires only 10% of the coal plant's power to be replaced with RE immediately after closure, a proportion that should rise to 40% by the end of the crediting period (see Section 4.2 of the Methodology). This is insufficient. Civil society groups have insisted that all the power lost from coal retirements should be replaced by RE energy. The Singapore-Asia Taxonomy requires a 1-for-1 replacement with "clean" energy for managed phaseouts of coal. (see Monetary Authority of Singapore, Singapore-Asia Taxonomy for Sustainable Finance, Appendix P – Criteria for the early and managed phaseout of coal-fired power plants, December 2023; Reclaim Finance, Ten guiding principles for financing coal retirement mechanisms, 1 December 2023) Types of RE The list of acceptable RE sources in Verra's methodology is problematic, as it includes several sources that do not qualify as truly renewable or sustainable. For a credible renewable energy pairing requirement, the methodology should restrict its list to clearly sustainable and low-impact sources, such as solar, wind and geothermal power (see Reclaim Finance, The limits of (not so) clean energy, 27	- Pairing - refer to comment 19 -Methodology requires 10% min at time of closure so that there at least a min amount of pairing and thus energy supply. The value of 40% The number is not based on any particular study. The way our methodology is defined - such as those related to leakage emissions, until the project has much higher degree of pairing, the GHG impact would not come out as positiive. We can not comment on any other methodology. The number has now raised to preferably at least 50% to increase ambition. - WtE, biomass, etc are chosen because they are infact renewablea dn also dispatchable, Any emission due to these energies is accounted in considering net GHG benefit.

	October 2023). Including non-renewable or controversial sources like landfill gas, biogas, biomass, Waste-to-Energy (WtE), and biomass in the list of renewable options dilutes the effectiveness and environmental integrity of the methodology. WtE, biomass, or landfill gas should not be considered sustainable replacements for coal power. For example, biogas plants can produce pollutants like ammonia and nitrogen oxides, and methane leakage remains a concern. Landfill gas and WtE electricity generation relies on a continuous input of waste, incentivizing waste production rather than promoting sustainable waste reduction practices. Methane capture systems for landfill gas do not completely prevent leakage, which contributes to greenhouse gas emissions. WtE plants often release pollutants, including heavy metals, and dioxins, and their promotion can undermine efforts to reduce waste. Lastly, burning biomass has been found to emit at least as much carbon as coal per unit of energy produced. (see for example Reclaim Finance, Factsheet – Bioenergy, March 2024; ClientEarth, What are the environmental impacts of waste incineration?, 9 March 2021; Zero Waste Europe, Waste-to-energy: An environmentally and financially bad investment, 16 February 2022; Chatham House, Woody biomass for power and heat research paper, February 2017)	
87.	Section 4 Applicability conditions 4.1.7) i (Page 8): The applicability conditions, although relevant, may limit state owned utilities in emerging market countries to adopt this methodology immediately. This aspect may need an approach that can be relaxed in the emerging market context. Additionally, if a government policy/commitment is already mandating a timeline for coal plant closures, speeding up this closure may not qualify to accommodate the principle of additionality unless it's shown that carbon credits accelerate it significantly beyond the legal requirement. 4.1.8) (Page 9) “Accelerated retirement will not have a material negative effect on consumer prices and energy access.” This aligns well with the just transition goal of preventing disproportionate financial burdens on consumers, especially low-income and vulnerable populations who are most sensitive to price fluctuations. However, we recommend incorporating a rate impact analysis and reliability assessment prerequisite for the utility (project proponent) to undertake prior to project.	

	4.2.13) (Page 9) We would appreciate further clarification on the rationale behind the minimum generation capacity (10%) of the paired renewable energy (RE) at the project start date, as generation capacity and actual consumption may differ. Additionally, it would be helpful to understand if the methodology assigns/ provides assurance on how the energy mix, including the paired RE, will effectively meet regional demand and supply needs, during the initial phase and the renewal of the crediting period. 4.3. 20) i) h (Page 12) We would suggest that Indigenous peoples and/or tribal communities be explicitly included in the "community" stakeholder group or separately, given their vital roles in local land stewardship and their unique perspectives on economic self-determination. Incorporating their knowledge and rights into the transition discussions is essential, and they should be recognized as an impacted stakeholder group. Similarly, trade unions can also have unique perspectives on how the retirement and paired RE deployment will affect them which can be added to the list of stakeholders to be considered. 20) xiii) (Page 14) Our experience understanding leading practices in just transition indicates that planned compensations must accommodate a fair living wage according to local conditions to reduce risk of wage suppression. 20) iii) (Page 16) For consensus building, an alternative approach could involve the co-creation of just transition plans between the project proponent and stakeholders to avoid stakeholders becoming passive recipients of pre-defined transition plans. Additionally, beyond the initial phase, just transition plans may benefit from targeted economic diversification. A project proponent who actively supports and engages in community-based transition planning is more likely to foster successful outcomes. vi) f) (Page 17) Allowing for "advisory and brokerage" deductions is quite broad. Without a defined cap or guidelines, these costs could be disproportionately high, further reducing the funds for the just transition plan. Specifying limits or requiring transparency in the breakdown of these costs would improve accountability. Excessive deductions could reduce the funds available for people centric interventions part of the just transition plan, undermining the intent of the allocation. The provision does not specify how the allocated funds should be spent within the plan, nor does it include defined monitoring reporting requirements to ensure funds are used effectively. Adding guidelines on fund allocation would help	

	ensure that the funds are genuinely advancing just transition goals. Some examples include skills development, economic diversification, and support for impacted communities. To strengthen this provision, we suggest considering increasing the minimum allocation tagged to specific activities, adding clarity around cost deductions, and specifying the just transition fund usage.	
88.	The boundary as stated provides a foundational structure for the environmental dimensions of retirement but could benefit from defining the high-level boundary for the just transition element. To strengthen the effectiveness of this methodology we suggest defining a project boundary to delineate the stakeholders involved (aka beyond the spatial extent of the CFPP/Paired RE), guiding where and to what extent the social benefits such as retraining programs or economic development efforts should be concentrated.	- Project boundary is specific for relevant GHG sources, sinks, reservoirs and relevant GHG. There are no emissions associated with JT elements such as providing jobs to people or having a stakeholder meetings. Even if they are, they are deminimis.
89.	The draft methodology and the accompanying module attempt to establish project additionality through regulatory surplus (meaning if there is no coal phaseout date or if the retirement occurs before the established coal phaseout date), investment barriers (if projects demonstrate that they have an investment barrier to early retirement), and “common practice” (in the absence of other similar early retirements in the geographical region, such as the host country or sub-national jurisdiction). These issues are discussed in Section 6.1 of the draft Module. These methods for demonstrating additionality rely on counterfactual approaches for determining what would happen in the absence of the project and create perverse incentives that may counteract the larger goal of transitioning away from coal. For example, the requirement demonstrating additionality under ‘regulatory surplus’ and ‘common practice’ may disincentivize governments at the national and sub-national level from implementing an ambitious coal phaseout commitment. For investment barriers, this can still be gamed by project developers by favorably selecting financing data, cost projections, or regulatory compliance paths. Project developers can present projects as financially unfeasible without carbon funding, even if other economic or regulatory pressures might have driven them to retire coal assets anyway. More broadly, in the case of coal retirements, evolving market dynamics, the rapidly falling cost of renewable energy and storage, and regulatory shifts, may result in an overestimation of avoided emissions. This is	The comment is too broad to address. The stakeholderr has riased a number of concerns but has not pointed to concrete part of the methodlogy to substantiate the concerns raised. Hence, unfortunately, no responses can be provided

	particularly the case given that the methodology may have to be applied a decade or more in advance of the coal plant being retired. For example, the TRACTION working paper produced by McKinsey uses an example of a plant to be retired ten years after the quantity of carbon offsets to be sold is calculated (and potentially sold into the futures market) (see Reclaim Finance, No Traction: Offsets won't deliver the climate benefits of coal phaseouts, 13 November 2024).	
90.	Verra's methodology lacks detailed requirements for transparent project monitoring, data disclosure and methodological assumptions. This means that crucial information about baseline setting, additionality assumptions, financial analyses, and renewable energy replacement rates could remain hidden from public scrutiny. For example, if the financial assumptions underlying a project's "financially attractive" retirement date or additionality claims are not publicly available, it is impossible for independent parties to verify whether these assumptions are realistic. Adding to this concern, the report lacks clarity about who is responsible for reporting and when these disclosures should occur. Self-reporting and reporting by biased third parties like carbon market consultants would lead to conflicts of interest.	kindly refer to response 25. The methdology provides a comprehensive list of parramters to be reported and montitored which then have to verfiied by an independent third party.
91.	To ensure completeness, certain stakeholders and types of interventions should be considered from the data and parameter monitoring process. These include 1) community and resilience efforts, 2) marginalized groups, (especially women and gender-responsive support, indigenous people), 3) consumers energy security and price impacts/affordability, 4) programs to stimulate local economic growth (with a focus on industries that can provide sustainable, long-term employment) and 5) interventions to strengthen the capabilities of local institutions and governments to implement and support the just transition. On page 38, it states, "After each session, the project proponent must describe how feedback received from each consultation session has been considered and, where relevant, accommodated." Building on the co-creation of just transition plans, data and parameters that reflect the adaptation of a just transition plan to address emerging issues from all stakeholders should also be included.	- THe data and parameters monitored are appropriate as per the requiremetns on options.provision and mechanism. 1) Unclear what is resilience effort. everything regarding livelihood is mentioned 2) They are included in differnet parameters - also included as part of standard level stakeholder consultation and safeguards. 3) not part of project - done at validation as per requirement on system operator assessment and rate impact. 4) not part of CFPP but larger economy wide measure. Anything related to CFPP is addressed. 5) already part of stakeholder inclusion and consensus building

92.	The Institute for Energy Economics and Financial Analysis (IEEFA) is pleased to submit comments to VERRA on this second draft of the methodology on coal-to-clean transition supported by the Rockefeller Foundation. We appreciate the efforts that have been made to produce and refine this approach, in particular the considerations given to affecting a just transition. Should you have any questions or would like clarifications, we would be pleased to discuss these with you further. Please direct those queries to Ramnath Iyer, Sustainable Finance Lead, Asia (riyer@ieefa.org) and Grant Hauber, Strategic Energy Finance Advisor, Asia, (ghauber@ieefa.org). A) Investment requirements We appreciate the governing concept of this mechanism that there needs to be power generation compensation for the capacity shut down. Thus, the deal beneficiary not only has to shut down the CFPP but invest in green energy to help strike this balance. Having a minimum RE replacement investment is certainly appropriate, as this has to date been the missing link in other transition mechanisms under consideration. The generation compensation mechanism – MWh supplied versus MW – addresses the need to replace useable energy lost. We also appreciate the consideration given to the qualities of the replacement supply from the grid, examining grid emissions intensity as well as the prospect of other parts of the grid adding fossil-based or CO2 emitting capacity to make up for the supply lost from the CFPP shutdown. This is important as netting this out correctly reduces the benefit to the initiating party under this protocol and could encourage it to add more RE capacity in order to make the deal viable, particularly on a high emitting grid. B) Netting mechanism is appropriate We appreciate the thorough approach taken to assuring a good accounting for baseline emissions and prospective leakages/continued emissions post deal. This includes the net emissions from project-related renewable new build, and/or from replacement power generation from the grid. We also appreciate the thought put into the netting calculations, both on the investing side and on the replacement power side. The investment side netting approach does not place a limit on the type of RE technology an investor could deploy but the calculation makes it clear that there is an	- MW vs MWh. MW is chosen as a metric for min pairing because that is a more constant as compared to MWh as an applicability conditions. THe RE is incentivisd as per section section of leakage emissions. If the RE is more and is faster - it reduces it leakage emissions hence, providng incentive to get more credits. More RE,. Faster RE - more credits. - We have referred to UNFCCC CDM Methodologies to cater for projet and leakage emissions happening due to paired RE. - A worked model is not part of methodological requirements. No change has been made due to this comment

	environmental cost to CO2 emissions (e.g. from biomass or biogas), which is an essential aspect to consider in such technologies. Also, as mentioned in the investment requirement section above, we believe it is appropriate to account for the potential increase in grid emissions in the event additional CO2 emitting generation sources are mobilized to close the energy supply gap left behind by the shuttered CFPP. We appreciate the effort made to either use already-approved UNFCCC methodologies or those updated by VERRA to calculate net CO2 reductions from various technological solutions. C) Worked model? One question that arises is whether some worked examples can be made available. It would be helpful to have an example or two modeled in order to illustrate the dynamics of how the mechanism works. It is clear that there are tradeoffs between how much CO2 was emitted from the CFPP and the net reduction achieved between the new build RE solution, plus grid-supplied power needed to make up the lost MWh. It would be interesting to see what it would take to incentivize a proponent to maximize RE investment, thereby maximizing the credit from this scheme.	
93.	Verra's draft methodology and module aims to produce a method to calculate how many carbon offsets can be generated from a coal retirement mechanism that retires an on-grid coal power plant with a PPA and replaces it at least partially with what Verra classifies as renewable energy (RE). The methodology faces significant challenges in addressing core issues related to additionality, baseline determination, and RE pairing. The indicators used to prove additionality remain susceptible to manipulation and create perverse incentives that discourage legal/regulatory options for phasing out coal and programs to provide substantial concessional finance. In addition, insufficient RE pairing requirements allow for continued reliance on fossil fuels. The inclusion of non-sustainable energy sources in the RE list undermines the environmental integrity of the methodology. The lack of robust transparency and disclosure requirements compounds these issues by limiting independent verification.	- The comment is not clear how financial additionality is providing incentive for manipulation. The financial additionality is based on NPV gap and is conservative. The conditions of financing are mentioned and how they are to be considered. - RE questions addressed in other comments. No change is made due to this comment

94.	Jurisdiction level phase-out plan This definition here is very general. In the primary M0233 document, there is a more detailed/comprehensive approach detailed that addresses public or private ownership, competitive market or regulated market. Perhaps these two methodologies should be harmonized around the treatment detailed in M0233?	- Meth only mentions ownership structucture. Jurisdicational plan is irrespective of this. Rest of the comment is unclear. No change has been made due to this comment
95.	Section 5.4: The definition appears restrictive in terms of what deal structure will qualify for a retirement deal. The way Section 5.4 reads is that consideration will only be given to deal structures that affect an asset 'buyout' or asset transfer plus a replacement PPA or modified PPA. Is it necessarily the case that there will be new parties to a transaction? Could this be done completely through debt finance plus credits with the existing asset holding company? We suggest that the broadest range of possible deal structure and innovation be accommodated as variants may be necessary and/or expedient. Section 5.5: Section 5.5 states that the deal must be inherently net financially positive with the shutting down of the CFPP and adding of RE (net of termination costs) saving money. Was any consideration given to the transaction structure receiving some sort of subsidy, credit or viability gap amount, whether from a public fund, philanthropy or private sources? We appreciate that a deal structure that stands financially on its operating fundamentals is by far the more attractive option. But could there be room for deals that receive some form of outside support to make them financially viable, as long as that funding was contractually/legally sound?	- This deal structing requirements are not for carbon credit revenue financing but outside of this and what we would consider as coal transition mechanism employed by other organisations such as ADB. This as you mentioned could be debt financing or any other financing mechanism. A transaction for carbon credit is not bound by these requireemnts. - Yes, any of those revenue (such as subsidy) need to be conisdered. Any financing recieved by the CFPP needs to be considered No change made to module for this
96.	Stance: Additionality in the module is determined by a project fulfilling all of three criteria: that the project is 1) occurring before regulatory closure mandates (if any exist), 2) occurring in a national context where retirement is not "common practice", and 3) has a demonstrable investment barrier to occurring. This section is good but ultimately does not sufficiently answer the question of additionality, and specifically the perverse incentives that arise in proposals to establish additionality. If transition credits do in fact have a significant impact on the investment flows towards retirement in a region/country, as is hoped, then their value will be based on a policy/regulatory context that is directly militating against ambitious coal decarbonisation policies. (I.e. credits' value will increase in line with a decrease in ambitious regulatory/energy policy because the more plant closures would have happened anyway, the less valuable crediting of their closure will be). This also	Addtionality is determined as the earliest date by when it is deemed possible the CFPP would have been retired by. A number of possible retirement scenarios need to be assessed, including one which requires the point in time when it is deemed that retiring the CFPP and replacing its output with a mix of grid sourced power and paired RE is finanically more attractive. The approach to determine this date (as well as the the retirement dates for the

	does not mention the difficulty of establishing the counterfactuals identified in the module.	other possible retirement scenarios) is grounded on a number of conservative assumptions. The outcome is a baseline scenario retirement that is conservative, ie which is sooner than that when the coal plant would have been retired by. It is worhwhile pointing out that there are no cases in emerging and develping countries of existing coal plants being retired earlier.Moreover, a susbtantial number of CFPPs still continue to operate in a number of advanced economies despite the provision of ample incentives being provided to support RE, easier access to finance, where carbon pricing mechansims exist, and where in general, low carbon energy is deemed affordable by a wealthier population .Emerging and developing countries lack the financial resources to provide such incentives, and those that have ventured to introduce similar carbon pricing instruments, cannot afford the level of carbon price that is present in advanced economies. Thus it is important to recognise that barriers exist to early CFPP retirement, particularly in emerging and developing economies, and that there is no evidence to support the notion that exisiting plants would be retired ealier in absence of any financial incentive (we are not aware of any evidence of an existing plant being

		retired earlier without provision of any financial incentive to do so). Efforts in the SEA for instance point just how challenging this is proving to be. It shall be noted, that the methodology also includes a common practice test to assess whether early CFPP retirement is common practice or not. Should early coal fired power plant prove attractive at some point, then any project seeking carbon crediting would also have to further substantiate why it differs from others that have been pursued, and thus, is additional.
97.	We understand the rationale for positive utilisation rate being a minimum condition for eligible CFFS (clause 4.1 (5)), but thought to flag that this may be limiting for markets with over capacity and increasing energy demand (Indonesia is the prime example, but this would also include Morocco and maybe Egypt). In these markets, where there has been arguable over investment in capacity, you are likely to have a situation where some idle or underutilised assets ramp up later to meet growing energy demand. I understand that for integrity reasons you would want to show that these credits are measuring a reduction (relative to a historical baseline) rather than 'avoidance', but you could probably still make a plausible argument that assuming coal as a percentage of total capacity remains constant (or in line with current policy) as energy demand increases, idle plants would come online. Maybe a way to get around this issue could be to have an additional requirement of a max reserve margin for the grid (say, 15% or less) where under that number, underutilised plants couldn't credit? We don't have all the answers on this now, but would be happy to brainstorm how this looks with you and/or Verra if this is of interest.	We appreciate the point raised, and it is indeed a very valid one, as well one bound to become increasingly relevant going forward. The methodology however in its current form focuses on retiring coal plants that are at present being utilised to primarily generate electrity (as opposed to ensuring that capactiy is available when needed) and expected to carrying on doing so until the date when as determined by the methodology it can be conservatively stated that the CFPP would have been retired anyhow. However, the comment does help higlight another important issue, which is that not being able to demonstrate a postive free cashflow to equity in a given year doesnt necessarily mean that operating the CFPP is not a viable businsess to its owner (and thus, that one would expect it to be shut down) ., e.g. negative free cashflow to equity can occur if a highly levered CFPP seeks to lower its debt ratio or if a major investment in the plant

		is made. Hence, Net Income After Tax is deemed a better indicator when looking back over the most recent years to establish whether it is credible or not that such a plant is bound to continue to operate unless an incentive is provided to prevent it from doing so. Methodology section 4.1 item 7 has been revised to reflect the above
98.	The positive fair value requirement (clause 4.1 (6)) makes sense for IPPs, but may need elaboration or qualification if the intention is to keep SOEs eligible, whose finances are often very muddled, where tariffs might not be divided between grids and generation, and in some cases where traditional PPAs might not exist. Again, don't have the answers now, but maybe you would need to show an overall loss to the fiscus if it was retired early? This would still be limiting in that older fleets like Eskom probably still wouldn't be eligible (given how much investment is needed just to keep them alive, at a loss to the state) but younger fleets like PLN's probably would be. If the intention is not to include SOEs implicitly, or if including a 'loss to the fiscus' condition would in practice open the methodology up to integrity critiques, then we understand if this is not possible.	The intent is to enable this methodology to be used by SOEs but to the extent that the requirements contained there in can be met. This includes providing the documentation needed during validation to substantiate them. The developer appreciates however, that as currently designed, the methodology might "leave on the table" CFPPs that will continue to operate, regardless of whether according to certain parameters and analysis it would seem unwise to keep such plant running. And hence, that although retiring early such power plants could be additional in practice, the approach provided in the methodology to demonstrate additionality, though appropriate in many countries might not be able to account for the barriers that prevent the CFPP from being retired early in other countries.And hence, that it may have to be futher refined or modified to cater for the situation described.
99.	A small drafting point - read together, the definition of a long term PPA on page 7 and eligibility clause 4.1 could mean that the minimum contractual term of the PPA is 20 years, or that the PPA has at least 20 years left to run at the time of crediting. We assume that you mean the former, as the latter would limit the eligible set significantly, but may be worth tightening language for a future draft.	- It is former. The language is clear in the definition as it says - term is 20 years. for clarification added if term of PPA is 20 years.

APPENDIX 2: DOCUMENTS REVIEWED

S.No.	Title of document	Version	Provided by
1.	M0233 - Accelerated Retirement of Coal-Fired Power Plants Using a Just Transition	v1.0, dated 17/10/2024	Verra
2.	VMD00XX - Combined Baseline and Additionality Assessment For The Accelerated Retirement Of Coal-Fired Power Plants	v1.0, dated 17/10/2024	Others
3.	VCS Standard	4.7	Others
4.	VCS Methodology Requirements	4.4	Others
5.	Public Stakeholders Comments	-	Developer
6.	Methodology Form Template	4.2	Others
7.	https://www.climateactionreserve.org/	-	Others
8.	https://cdm.unfccc.int/	-	Others
9.	https://www.goldstandard.org/	-	Others
10.	https://www.globalcarboncouncil.com/	-	Others
11.	https://verra.org/	-	Others
12.	CDM TOOL10 Tool to Determine the Remaining Technical Life of Equipment	-	Others
13.	CDM Methodology: ACM0001 Flaring or Use of Landfill Gas	-	Others
14.	CDM TOOL15 Upstream leakage emissions associated with fossil fuel use	2.0	Others
15.	CDM Methodology: ACM0022 Alternative Waste Treatment Processes		Others
16.	CDM Methodology: ACM0014 Treatment of Wastewater		Others
17.	Heffron, R. J. 2021. "The Elements of the Just Transition Within International Institutions." In *Achieving a Just Transition to a Low-Carbon Economy.* Palgrave Macmillan	2021	Others
18.	KCI. 2022. Implementation of Just Transition and Economic Diversification Strategies: A Compilation of Best Practices From Different Countries. UNFCCC. https://unfccc.int/documents/624596	2022	Others
19.	Luna, F. 2019. "Identifying and Evaluating Layers of Vulnerability – A Way Forward." *Developing World Bioethics* 19 (2): 86–95. https://doi.org/10.1111/dewb.12206	2019	Others
20.	VCS Program Guide	v4.4	Others
21.	CDM Methodology: ACM0002: Grid-connected Electricity Generation from Renewable Sources	v22.0	Others

22.	CDM Methodology: AM0019: Renewable Energy Projects Replacing Part of the Electricity Production of One Single Fossil Fuel Fired Power Plant That Stands Alone or Supplies to a Grid, Excluding Biomass Projects	v2.0	Others
23.	Methodology Webpage: https://verra.org/methodologies/methodology-for-accelerated-coal-fired-power-plant-retirement-using-just-transition/	-	Others
24.	CDM Methodology: ACM0006: Electricity and heat generation from biomass	-	Others
25.	IPCC Guidelines on National Greenhouse Gas Inventories	2006	Others
26.	CDM Tool 17	-	Others
27.	VCS Methodology Development and Review Process	v4.4	Others
28.	VCS Methodology Submission Form & Agreement	v4.1	Others
29.	https://verra.org/validation-verification/earthood-services-private-limited/	Last Assessed on 21-03-2025	Others

APPENDIX 3: COMPETENCE STATEMENT

Competence Statement			
Name	Jinesh Amlani		
Education	M.Sc. Energy Systems B.Sc. Physics		
Experience	8+ years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES (VM Only)		
Validator	YES (VM Only)		
Verifier	YES (VM Only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA.1.2, TA 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	16/05/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	16/05/2024

Competence Statement			
Name	Divij Varshney		
Education	M. Tech. Renewable energy systems B.Tech. Electrical Engineering		
Experience	3.5 years		
Field	Climate Change & Environment / Industry		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Local expert	Yes (India)		
Financial Expert	NO		
Technical Reviewer	Yes		
TA Expert (X.X)	Yes (1.2 &3.1)		
Reviewed by	Shifali Guleria, Quality Manager	**Date**	04/04/2024
Approved by	Deepika Mahala, Technical Manager	**Date**	04/04/2024

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	**Date**	18/02/2022
Approved by	Ashok Gautam	**Date**	18/02/2022

Competence Statement	
Name	Rakesh Gupta
Education	B.E. Mechanical Engineering

	IGNOU PG diploma in Operations Management		
Experience	30+Years		
Field	B.E. Mechanical Engineering & Thermal Energy		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (1.1)	YES		
Trainee	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	16/08/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	16/08/2024

Competence Statement			
Name	Ranjan Singh		
Education	BSc (Physics), MBA (Marketing)		
Experience	15 +Years		
Field	Power, Utilities and Renewables		
Approved Roles			
Team Leader	YES (VM Only)		
Validator	YES (VM Only)		
Verifier	YES (VM Only)		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA 1.2)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	11/06/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	11/06/2024

APPENDIX 4: FINDINGS OVERVIEW

MD is referred as “Methodology developer”

Table 1. CL from this verification

CL ID	01	Section no.	4	Date : 22/11/2024
Description of CL				
Following observations has been made in the methodology: 1. Section 4.1, Point 1: MD shall clarify why the cutoff date has been specifically kept as Dec 21, 2021. 2. Section 9.1, Parameter Table $CFPPREF_{CFave,y}$: Bullet point 3 under Comments : MD shall clarify on the condition of ‘Equal or greater’ instead of a +/- range, because it is not necessary that the equal or greater criteria will always get fulfilled.				
Project participant response				**Date :** 10/12/2024
1. The rationale has been specified. As per the Glasgow climate pact. 2. Equal or greater marginal cost of running CFPP is taken. Plants with a higher marginal cost will be dispatched less, and thus will have a lower capacity factor. Taking such a CF value then results in a conservative, lower baseline electricity generation, and hence baseline emissions.				
Documentation provided by project participant				
- updated methodology document				
VVB assessment				**Date:** 18-12-2024
1. MD has provided the rationale in the methodology as the specified section and is accepted by the VVB. Closed 2. MD has not addressed the findings appropriately. Open				
Project participant response				**Date:** 24-01-2025
2. Where those conditions are not fulfilled, the project developer may use the criteria mentioned below in the monitoring table “Where there are no CFPPs that meet the above criteria, $CFPPREF_{CFave,y}$ is obtained as follows: i) Where $CFPPBL_{CFval,ave}$ is greater than or equal to 60%, the capacity factor is assumed to decline linearly to 30% at the baseline retirement date. Where $CFPPBL_{CFval}$ is greater than 60% and the baseline retirement date is more than 10 years from project decommissioning, assume $CFPPBL_{CFval,ave}$ declines linearly to 30% over the CFPP’s remaining technical life.”				
Documentation provided by project participant				
updated methodology document				
VVB assessment				**Date:** 28-02-2025
2. The MD has now modified the language of the Monitoring parameter comment to make it consistent with the remaining description of the monitoring parameter provided in the table. CL01 is closed.				

CL ID	02	Section no.		Date : 22/11/2024
Description of CL				
Methodology Developer (MD) is requested to provide its responses for the following public consultation comments on methodology: 1. For merchant plants, recommend that the CFPP must be able to sell in a recognized and meaningful electricity market (e.g., trading at least [10%] of total volume), and at least one of the following conditions is met: a. CFPP be retired on or before 2030 and must be less than 35 years in operations by the time of (early) retirement.				

Rationale: any reasonably aged CFPP retired by 2030 will help the IEA position that 55% reduction in coal emissions between 2022 and 2030 is needed to achieve the 1.5 degree limit.
Alternatively, the likelihood of a vintage early 1990s CFPP retiring by 2030 is very low. (Eg. (1) Mt Piper in NSW Australia vintage 1993 commercial operation date, with planned retirement date of 2040. Unlikely to voluntarily retire at age 35 or year 2028 unless there is incentive).

b. CFPP to be retired on or before 2040 and must be less than 25 years in operations by the time of (early) retirement.
Rationale: CFPPs typically have 25 years of depreciable life. Retiring merchant CFPP before year 25 is highly unlikely given asset write-off issues, especially if the plant is profitable (which is gated by the historic cash flow test). 2040 retirement date consistent with SBTI net zero target date for energy companies to attain 1.5 degree limit.

c. CFPP to be retired on or before 2040 and must be less than 35 years in operations by the time of (early) retirement, AND supported by a third party study that the CFPP is likely to operate at [>50%] capacity factor and likely to remain profitable until (early) retirement year. Analysis by 3rd party to include plant's financial/ operational outlook and market dynamics.
Rationale: 30+ year old CFPPs operating in the 2030s (eg. Quezon Power Plant in the Philippines vintage 2000 commercial operation date) may or may not be competitive. A third-party study justifying financial and operating viability can confirm additionality.

2. For the approach, it should be paired generation ouput (i.e., energy output in GWh) instead of generation capacity, especially considering RE capacity factor is much lower than CFPPs. The Methodology can consider the following dimensions/metrics of pairing:
1) Extent of pairing (i.e., coverage ratio relative to lost CFPP generation)
2) Timing of clean energy replacement
3) Quality of energy replacement (i.e., intermittent vs dispatchable or with energy storage)

   The Methodology should also consider that the volume of transition credits be differentiated depending on the three aforementioned metrics (e.g., a high coverage ratio, early replacement timing, and dispatchable RE should be given more credits).

   Overall, the Methodology should also be reviewed and revised in order to align the parameter on paired generation (i.e., the proposed 40% RE requirement), its determination, and its use across the Methodology so that a simplified alternative approach can be presented.

3. This is likely insufficient, since the nameplate capacity of most RE plant is not equivalent to dispatchable CFPPs in terms of periodic provision of energy and system services. Applying capacity factors address the inequvialence partially, but is unable to capture the inter-periodic availabilty of the plant. For e.g., (1) Standalone Solar PV vs. (2) Solar PV paired with BESS - both may have similar capacity factor in a day, but (2)'s generation is smoothened and is dispatchable to provide system services.
Improve by applying capacity factors, and lift threshold to >70% as a simplistic approach to minimise leakage.

Project participant response	**Date :** 10/12/2024
Comment Addressed	
Documentation provided by project participant	
Updated public comment 1 excel	
VVB assessment	**Date:** 18/12/2024
MD shall provide a detailed response on the action taken to each of the findings of CL02	
Project Participant response	**Date:** 24-01-2025

1. The following was response to finding 1 (in the tracker excel sheet for public comments 1 (f6). No changes were made to the methodology:
   1) 1. Methodology is not developed to incorporate merchant CFPPs. Since the merchant CFPPs do not have a fixed single long term PPA, it becomes difficult to appropriately to quantify its baseline electricity production and the time it would be retired in absence of a regulation or other government incentive. Age of the plant may always not be the appropriate proxy for its baseline retirement date and in case of Merchant Plants, previous utilzation rate may not appropriate proxy for its future utilization.
   2) The methodology developer will consider merchant plants in future versions/revision Appropriate revisions will be made in the methodology for its applicability conditions and the module for considerations under baseline retirement date and additionlity, including requirement considerations to prevent in form of overcrediting.

2. The following was response to finding 2 in the tracker excel sheet for public comments 1 (26). No changes were made to the methodology:
   3) The installed capacity and its actual generation varies significantly amongst different type of RE types. It becomes difficult to have a minimum pairing approach based on generation output. For leakage emissions (energy compensated by the grid that paired RE is unable to produce) the actual output of paired RE is measured and monitored.
   4) 1) Extent of Pairing - as mentioned above extent of pairing is determined based on installed capacity to have a standarised form of comparison. Though, for actual emission reduction calculations, actual RE output as compared to baseline electricity production is considered.
   5) 2) The methodology is requiring a min of 10% installed capacity pairing at the time of decomissioning and 40% achieved at minimum by end of the crediting period
   6) 3) Quality aspect however is not directly considered. The methodology allows for dispatchable form of RE pairing (e.g.. Solar + BESS) and non-dispatchable (only Solar). However it is expected that there would be difference (positive) in terms of RE paired dispatchable vs non dispatchable, thus indirectly incentivisation.
   7)
   8) Volume of credits is determined by the amount of RE paired and thus is generation output. The earlier and more RE is paired, the more transition credits will be issued.
   9)
   10) There is parameter on actual RE generation of RE. However. as mentioned above, the minimum pairing is based on installed capacity.
3. The follow was the response to finding 3 in the tracker excel sheet for public comments 1 (f27). No changes were made to the methodology.

11) We agree that actual generation is different for different RE types even if the installed capacity is same. That is why actual credits - leakage emissions is based on difference of baseline electricity and project RE electricity supplied to the grid.

12) The methodology is designed in a conservative way that if there is not enough high RE pairing thus RE generation output, the emissions reduction will not be substantial.

Documentation provided by project participant

Updated public comment 1 excel

VVB assessment | **Date:** 18-12-2024

1. MD has explicitly defined the applicability of this methodology in Sec 4 Applicability Conditions. Hence the response that the methodology is not designed for applying to Merchant CFPPs is valid and hence the response is accepted.
2. As per Para 15 of the proposed Methodology there are 10 different RE technologies that are eligible to qualify as paired RE. The efficiency and PLF of these different technologies vary drastically, thereby creating drastic variance in the installed capacity of the RE and further

leading to a disparity in investment analysis. The VVB thus accepts the MD's approach to pair RE in terms of installed capacity instead of electricity generation.

3. As per para 9.1 Equation (1), the baseline emissions are calculated using $EG_{BL\,CFPP_y}$ which incorporates actual amount of electricity generated in the baseline and thus supports claim made by the MD.

CL02 is closed.

CL ID	03	Section no.		Date : 22/11/2024
Description of CL				

Methodology Developer (MD) is requested to provide its responses for the following public consultation comments on module:

1. For liberalized markets, evaluating a CFPP's financial feasbility would not only consider existing PPAs since this can always be recontracted for as long as there is a power demand growth and market expansion. Additionally, CFPP can serve retail customers that are typically short-term contracts and can also sell electricity through the wholesale electricity markets. Meanwhile, for regulated markets, long-term PPAs play a more critical role, given that the future of the CFPP post-PPA period is dependent on government action.

   However, for CFPPs that continue to be owned by an asset owner post-PPA, an expiring PPA and a fully depreciated plant does not necessarily translate to a natural retirement of the CFPP. This would depend on the current supply-demand situation of the power system. For example, for CFPPs under a Build-Operate-Transfer scheme where the government takes back control/ownership of the CFPP post-PPA, it can be argued that there is a higher likelihood of continuing the CFPP's operations.

   As such, quantifying carbon credits using a very conservative baseline retirement date (e.g., end of PPA or the earliest among several variables) would be a strong disincentive for CFPPs to pursue early retirement. As an alternative, the Module can reconsider being less conservative with this parameter, and instead consider applying a higher incentive (i.e., more credits) to plants that retire younger and less credits to plants that retire older.

2. Grid services provide significant revenue to CFPP, but also benefit to the system as a whole. Conservativeness in estimating the retirement date and hence the revenue gap is a disfavour to the power system as a whole, since it indirectly omits the additional funding needed to backfill CFPP with costlier dispatchable assets that preserve system reliability.

3. Speaking of FSA, this is a potential source of upstream leakage, especially if coal producer can re-direct supply and/or FSA has a 'take-or-pay' arrangement. Project proponents who are able to re-direct their coal supply for cleaner applications should be recognised. Conversely, those who did not address upstream leakage could be penalised under methodology. MD shall clarify.

Project participant response	**Date :** 10/12/2024
Comments Addressed	
Documentation provided by project participant	
Updated PC 1 excel	
VVB assessment	**Date:** 18-12-2024
MD shall provide a detailed response on the action taken to each of the findings of CL03	
Project participant response	**Date :** 24-01-2025

1. Response to finding 1 is in f26. No change made in the module. The following was the response

   13) The considerations for retirement including remaining book value of the plant are different from what is considered currently for plants with Long term PPA. THe methodology currently does not cater for merchant CFPP. Consideration to include merchant CFPP would be made in the future revisions of the methodology

   14)

2. Response to finding 2 is in cell f46. No change made in the module. The following was the response:

   15) The analysis only considers the value of generation, rather than including the value of additional grid services that the CFPP may provide (e.g., capacity, ancillary services), except in the case of an off taker of a CFPP PPA, the NPV of required revenues must be calculated based on the terms of the PPA as shown in Equation 3. However, the role of the methodology is to define financial additionality and the emissions reductions, rather than provide pricing guidance on the financial gap. It does not define the approach to determine the financial gap The methodology and the overall estimation of baseline and emission reductions must be conservative to avoid any future instances of overcrediting that may impact environmental integrity of the methodology and project

3. Response to finding 3 is in f86. No change in made in module. The following was the response:

   16) This may constitute a part of international leakage, for example - a country like India maybe importing coal from another country but due to early retirement of the CFPP, the coal supplier may or may supply the same coal to another CFPP in another country. Such is not part of the activity, nor is in control of the individual CFPP operator.

Documentation provided by project participant

Updated PC 1 excel

VVB assessment	**Date:** 28-02-2025

1. MD has explicitly defined the applicability of this methodology in Sec 4 Applicability Conditions. Hence the response that the methodology is not designed for applying to Merchant CFPPs is valid and hence the response is accepted.
2. MD has appropriately explained the rationale behind not considering additional revenue from grid services inorder to keep the analysis conservative. MD has also incorporated the explanation in Para 5.5.1
3. MD has appropriately clarified the reason for not considering emissions due to the re-direction of coal avoided due to retirement of CPFF, since the Methodology scope is limited to parameters and aspects directly linked to or under the control of the CFPP.

CL03 is closed.

CL ID	04	**Section no.**		**Date :** 18/12/2024
Description of CL				

1. At multiple places in the Meth, MD has mentioned the terms electricity generated, electricity supplied and electricity exported interchangeably. However, each term has a distinct application and meaning. MD shall clarify on the appropriateness of use of each terms at all placed in the Meth.
2. Sec 8.3 Eq(5): The term used in the formula is EF_y which is not used elsewhere in the Meth or in the monitoring paramaters. MD shall clarify whether this term is a separate term or same as $EF_{CM,y}$.
3. Sec 9.1: MD shall include FC_C term.
4. Sec 9.1 Under Source of Data for NCV_C, For Data Source i) and ii), the values in the report may itself be in a range and not necessarily a single value. MD shall clarify what value from the range should be considered by the PP in such a scenario.
5. Sec 9.1 : Under Source of Date for EG_{CFPP} and $EG_{REy,\ I}$, MD shall specify the location of the meter.
6. Appendix B: Under 1) Start Date, MD has stated that 'the start date corresponds to the date on which the CFPP completely ceases its activities of electricity production and has started the decommissioning and dismantling process.' As per VCS Standard, the start date corresponds to the date on which the which the project starts to generate emission reductions and/or removals. MD shall clarify as to what document will be used to substantiate the start date of CFPP as defined by the MD.

Project participant response | **Date :** 24-01-2025

1) This has been corrected for the methodology. Now it mentions electricity generated and supplied, implying it is about electricity supplied to the grid.
2) The equation has been corrected to match the parameter mentioned in the leakage.
3) 9.1 now includes a table for FC_C
4) It has been clarified now that the weighted average needs to be taken. This is as per CDM TOOL 03.
5) It has been added that the meter has to be at the grid interface. (now parameters under section 11.1 after technical edit and formatting by Verra)
6) The start date definition as per VCS document stand. The methodology annex only provides guidance. The cessation of electricity production can be substantiated by meter records when electricity was not supplied to the grid. And site evidence of start of decommissioning of the CFPP. However, the possible evidence we may not need to include in the methodology document.

Documentation provided by project participant

Updated methodology document

VVB assessment | **Date:** 28-02-2025

1. MD has not correctly used the term 'electricity generated and supplied' throughout the methodology document.
2. The term EF_y is now changed to $EF_{CM,y}$.
3. The term FC_C is now included in the table.
4. MD is now specified that the average net calorific value will be based on weighted average and is now in line with CDM Tool 03. Thus it is accepted by the VVB.
5. The location of meter has now been specified in the Sec 11.1, and is found to be appropriate.
6. MD has left onus on providing and proving the evidence to substantiate the start date in line with VCS Standard definition on the PP and kept the specifics out of purview of the methodology.

CL#04 is CLOSED.

CL ID	05	Section no.	5	Date : 28-11-2024

Description of CL

Following observations has been made in section 5 of the module:

1. Section 5.3, MD shall clarify why the cutoff date has been specifically kept as Dec 31, 2023.

2. Section 5.5.1, It is not clear how the financial assessment period and continued operating period are related.
3. Section 5.5.1, last paragraph; states that "If nominal terms are used, inflation must be accounted for following the guidance provided in the latest version of the CDM TOOL 27", however, CDM Tool 27 does not have any provision to convert NPV from nominal to real terms. MD shall justify the applicability CDM Tool 27 to convert NPV from nominal to real terms.
4. Section 5.5.6.5: The depreciation description relates to book value depreciation; however, the title of the section refers to income tax depreciation. Income Tax depreciation rates may vary from country to country and are subject to host country regulations. MD shall clarify how eq. 12 is applicable universally for calculation depreciation cost for tax purposes.
5. Section 5.5.6.7, point 4: states that 'based on the average rate of change of carbon prices over the last five years of available data'. MD shall clarify the approach to calculate the carbon prices if the data is available for less than 5 years.
6. Section 5.5.6.7, eq. 14, MD shall justify the reason for taking a three-year average for the calculation of emission factor.

Project participant response	Date : 10-12-2024

1. It was deemed fair to provide CFPP owners a reasonable time window in which to allow for PPA extensions whose negoatiations had started prior to the Glaswgow 2021 coal fired power plant phase out, to be executed. In such cases the end of the PPA would be the extended PPA end date. However, CFPPs with PPA extention execution dates after Dec 2023 would be dismissed when determing the retirement date in this scenario. In such cases, retirement date under this scenario would be considered to be the end date of the preceding PPA whose duration was extended. This prevent CFPP owners from setting out to extend the PPA end date in order to generate more carbon credits Also - methodology did 1st public consultation in 2023 so people, including CFPP owners are aware that this methodology is coming, so it is to prevent any perverse incentives"
2. Section added to clarify. The section has been added post equation 1 for clarification of financial assessment period as follows:

The length of financial assessment period, expressed in number of years, shall be the lower of the following options:

a. 20 years (standard period for required revenue calculations)

b. For a CFPP owned by a regulated utility: the remaining technical life determined as per the latest version of the CDM Tool 10: Tool to Determine Remaining Technical Life of equipment.

c. For a CFPP owned by an IPP with a long term PPA: the remaining number of years under its existing PPA.

3. Analysis to be done in real terms. Text deleted regarding nominal terms.
4. We assume VVB is referring to "income tax" depreciation. So essentially, saying that, in a given geography, entities will pay income tax based on how IT depreciation is treated in that geography. we would say two things here: Since the methodology is geography-agnostic, we don't know what the tax depreciation rules are, so we use straight-line book depreciation as an estimate of the asset's value. We also highlight that the effects of any local tax depreciation treatment should be accounted for in the ultimate investment analysis (see bottom of page 15): Depreciation for tax purposes should reflect existing policies or tax codes that would provide a tax benefit to renewable energy technologies. If no such policies exist, straight-line depreciation over the project lifetime may be assumed.

Depreciation is a parameter used in equation 2) to determine the NPV of required revenues (DEPy) to keep the CFPP running and equation 9) to determine the LCOE of paired RE used to replace CFPP electricity (DEPTAX,y. Parameter table for DEPy has been revised to clarify that depreciation for tax purposes should reflect existing policies or tax codes. And, that where no such policies exist, depreciation costs should be estimated assuming straight-line depreciation of the net book value of the CFPP over the remaining technical life of the CFPP. Divide net book value of CFPP in year of

analysis by remaining technical life to obtain. And additional paramer table for DEPTAXy has been added.. Depreciation for tax purposes should reflect existing policies or tax codes that would provide a tax benefit to renewable energy technologies. Where no such policies exist, straight-line depreciation over the project lifetime may be assumed. Refernce Depreciation for tax purposes is made because there are two types of methods to determine depreciation: Accounting depreciation and tax depreciation. We wanted to make it clear to the user which of the two is to be applied in the equations.

5. Made change in the methodology "If the assessment period extends beyond the published schedule or range or prices, the carbon cost must be projected linearly using the values determined as above"
6. Because of 3 years here, you get higher carbon cost - hence more conservative baseline.

Documentation provided by project participant	
Updated Module document	
DOE assessment	Date: 18-12-2024

1. MD has clarified that the cutoff date has been specifically kept as Dec 31, 2023 to align it with the Glasgow Climate Pact agreement in COP26.
2. MD has added the appropriate missing text which now clarified and justifies the approach in Sec 5.5.1.
3. MD has removed the reference to conversion of NPV to nominal terms, since this is not in line with CDM Tool 27
4. The references to depreciation description are now elaborated at all relevant places in the Module document to remove any discrepancies..
5. MD has modified the language of the section to cater to scenarios where the carbon prices data is available for less than 5 years.
6. MD has justified the reason for taking a three-year average for the calculation of emission factor to be conservative. This is accepted by the VVB

CL05 is Closed.

CL ID	06	Section no.		Date : 18-12-2024
Description of CL				

1. At multiple places in the Module, MD has mentioned the terms electricity generated, electricity supplied and electricity exported interchangeably. However, each term has a distinct application and meaning. MD shall clarify on the appropriateness of use of each terms at all placed in the Module.

Project participant response	Date : 24-01-2025
The language has been corrected to reflect the electricity that is supplied. The term generation can not be completely removed as it may also impact already existing and verra approved equations and terms	
Documentation provided by project participant	
Updated Module document	
DOE assessment	Date: 28-02-2025
The MD has now rectified correct terms at all relevant places to remove any ambiguities. CL06 is Closed.	

Table 2. CAR from this verification

CAR ID	01	**Section no.**	4	**Date :** 22/11/2024
Description of CAR				

Following observations has been made in section 4.1: 1. Point 5: Quotes that 'The CFPP has demonstrated utilization (i.e., positive capacity factor) for the five most recent years at the time of validation and prior to the accelerated retirement of the CFPP. 'However, in the subsequent line it is quoted that 'Where the CFPP has been operating for fewer than five years, it must have demonstrated utilization each year since its commercial operation date.' Also, Eq 3 of Sec 8.1 requires the CFPP to be operational for atleast 5 years. PP shall rectify the inconsistency.
Project participant response **Date :** 10/12/2024
- Removed reference of less than 5 years in 4.1. No other sections had reference to fewer than five years after technical edit document provided by Verra. - As per the new verra technical edit document, it was only at 4.1 for the methodology.
Documentation provided by project participant
- updated methodology document
VVB assessment **Date:** 18-12-2024
MD has removed the reference of 'less than 5 years' in section 4.1. CAR01 is Closed.

CAR ID	02	**Section no.**	01	**Date :** 22/11/2024
Description of CAR				
1. PP shall include the definition of the term 'Pairing' in section 3 of the methodology. 2. It has been observed that PP has used the two terms for the RE power plants i.e., eligible RE (section 8.3.2) and paired RE. PP is requested to clarify the difference in definition in both the terms and include the definitions in section 3 of the methodology.				
Project participant response				**Date :** 10/12/2024
1. Definition added of Paired RE 2. Corrected - Using paired RE in 8.3.2. Removed term eligible				
Documentation provided by project participant				
- updated Meth document				
VVB assessment				**Date:** 18-12-2024
1. The definition of Pairing has now been included in section 3 of the methodology. 2. The difference in definition in both the terms (eligible RE (section 8.3.2) and paired RE) has now been clarified and definitions has been included in section 3 of the methodology. CAR#02 is Closed				

CAR ID	03	**Section no.**	5	**Date :** 28-11-2024
Description of CAR				

Following observations has been made in section 5 of the module:

1. In Section 5.5.6.4, stated that 'If fewer than five years of operational data exist, then the average of the historical fixed and variable operations and maintenance costs over the entire lifetime of the CFPP must be used.'. Similarly, in section 5.5.6.6 and 5.5.6.8 reference has been provided to conditions for data available for less than five years. MD shall rectify and make it consistent with the methodology.
2. It has been observed in section 5.5.1, it has been stated as "generation with renewable energy (RE)", however, in the methodology paired renewable energy has been used, MD is requested to make the term consistent throughout the methodology and module.
3. Section 5.5.2, equation 3, $CONTRACT_y$ term is found to be missing from the definition
4. Section 5.5.6.1, equation 9, for the definition of $WACC_s$ it has been stated as 'Weighted average cost of capital for stakeholder S'. MD shall clarify the definition of stakeholder in the term. Additionally, MD shall clarify the relation between WACC, $WACC_{U,}$ $WACC_{s, and}$ $WACC_o$.

Project participant response	**Date :** 10/12/2024

1. Deleted
2. Paired added
3. It is now changed to $TERM_y$ (by verra). It is now added in the equation 4 (erstwhile equation 3)
4. The stakeholder has been defined in equation 1. Further, depending on the type of stakeholder, section 5.5.2 provides equations that should be taken for calculation. Eq 2 is for utility./IPP and Equation 4 is for offtaker.. WACC represents the Weighted average cost of capital for the relevant stakeholder. Now, in the module, there are 3 WACC mentioned. $WACC_u$ $WACC_f$, and $WACC_s$. It is utilmately is the same parameter, just mentioned as relevant for the stakeholder as per equation 1.

Documentation provided by project participant

Updated Module document

DOE assessment	**Date:** 18-12-2024

1. MD has deleted the erratic references in Section 5.5.6.4, 5.5.6.6 and 5.5.6.8 to remove the conflicts with other sections in the module and Methdology and make it uniform and consistent.
2. MD has added the word 'Paired' to make the term consistent throughout the methodology and module.
3. Section 5.5.2, equation 3 is now chaned to equation 4 and the term $CONTRACT_y$ is now changed to $TERM_y$ (by verra).
4. MD has clarified the definition of $WACC_{s,}$ the stakeholders has now been clarified in equation 1. The relationship between $WACC_u$ $WACC_f$, and $WACC_s$ has now been clarified and is found to be appropriate.

CAR#03 is CLOSED.

CAR ID	04	**Section no.**	6	**Date :** 28-11-2024

Description of CAR

In Section 6.3.1, It has been stated that 'the project is considered first of its kind in the applicable geographic region'. However, no description of 'applicable geographic region' has been provided. MD shall define the term 'applicable geographical region'.	
Project participant response	**Date :** 10/12/2024
The definition of applicable geographic is added. The added language is as follows: "The geographic region selected for conducting common practice analysis should be the national boundary of the host country. Where a sub-national boundary is selected as the applicable geographic region (e.g., region, province/state), the project proponent must provide suitable justification, rationale, and supporting evidence of the circumstances differentiating the selected sub-national boundary from the rest of the country. This may be based on relevant power sector regulations or significant differences in set-up of power sector stakeholders, among others."	
Documentation provided by project participant	
Updated Module document	
DOE assessment	**Date:** 18-12-2024
MD has incorporated a para on defining the geography in Sec 6.3.1 CAR04 is Closed.	

CAR ID	05	**Section no.**	6	**Date :** 18-12-2024
Description of CAR				
In Section 6.3.2, The terms NALL and NER have been wrongly placed in Eq 16				
Project participant response				**Date :** 24-01-2025
NALL and NER have been corrected. The equation is also corrected.				
Documentation provided by project participant				
Updated Module document.				
DOE assessment				**Date:** 24-01-2025
MD has made the rectification in the terms as well as in equation 15 CAR05 is Closed.				