SUMMARY OF PUBLIC CONSULTATION

VM0052 Methodology for Accelerated Retirement of Coal-fired Power Plants Using a Just Transition,v1.1 and VMD0060 Combined Baseline and Additionality Assessment for Accelerated Retirement of Coal-Fired Power Plants, v1.1

A public consultation has held for these documents between March 27, 2026 and April 26, 2026. This document includes a list of all comments received and Verra's response.

KEY QUESTIONS

Q1: How do the revised pairing thresholds in Applicability Condition 16 (VM0052) affect the risk of unaccounted leakage resulting from this project activity? What alternative pairing threshold would you propose? What are the benefits and drawbacks to changing the pairing threshold?

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1	Dr. Prachi Ugle Safe Landing Climate, Sustainable Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	The revised pairing threshold shall reduce the emissions and shall further accelerate transitional risk including the operational efficiency. As the project methodology includes baseline, project and leakage, foreseeing unaccounted leakages which happens during closure or while enabling retirement of coal fired power plants, rather than threshold pairing, a complete new methodology with	Thank you for the comment. Verra agrees that stronger pairing requirements reduce the amount of replacement electricity supplied by the wider grid and therefore reduce leakage risk. The latest version has moved away from capacity-based threshold pairing and instead requires the pairing plan to deliver annual renewable electricity generation, determined on a P90 basis, equivalent to 100% of the retired CFPP's

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		benchmark threshold be used with narrative of Methodology to be used should be exclusive of coal fired power plants retirement. So leakages measurement and monitoring shall be avoided, a complete scope 4 emissions (avoided emissions) from use of renewables should be prepared	annual generation by the end of the total crediting period, or the quantity required by the system operator. The plan must also include annual development, commissioning, and generation milestones. Verra has not adopted the suggestion to omit leakage accounting or to treat all renewable generation as 'Scope 4' avoided emissions. Where paired renewable generation does not fully replace the retired generation, grid backfill can create material emissions and must remain quantified and deducted to protect environmental integrity.
2	Hendri Rantau Eco Sustainability	how do you revised pairing threshold in Applicability Condition 16(VM0052) affect the risk of unaccounted leakage resulting from this project activity? In the draft revision of VM0052 (Page 10, Condition 16), the thresholds for pairing retired coal capacity with new renewable energy (RE) were significantly increased: Initial Start Date: Increased from 10% to 25%. End of First Crediting Period: Increased from 40% to 50%. End of Second Crediting Period: Maintained at 100%. How this affects leakage risk: Leakage in this methodology (Section 8.3) occurs when the electricity previously supplied by the retired coal plant is "back-filled" by the existing grid. If the grid relies on other fossil fuel plants (like natural gas or other coal units) to fill the gap left by the retired plant, leakage emissions are generated.	Thank you for the detailed proposal. Verra agrees with the underlying objective of reducing reliance on uncertain grid backfill calculations. Following consultation, the latest version replaces the earlier capacity-based percentage thresholds with a generation-based requirement: paired facilities must collectively provide annual electricity generation, assessed on a P90 basis, equivalent to 100% of the retired CFPP's annual generation by the end of the total crediting period, or the quantity required by the system operator. Annual milestones are also required. Verra has not required 100% pairing by the end of the first crediting period or hourly MWh-for-MWh matching, because project development timelines, renewable resource profiles, and system needs vary materially by jurisdiction. Grid reliability and any need for storage or ancillary-service assets are addressed through the system operator's reliability assessment and pairing-plan requirements rather than through a technology-specific mandate.

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		Reduction of "Grid Gap": By raising the initial threshold to 25%, the methodology forces a larger portion of the replacement power to come from a known, zero-emission (or low-emission) paired source immediately. This reduces the "gap" that the grid must fill, thereby reducing the volume of potential leakage. Lowering Calculation Uncertainty: Grid emission factors (Section 8.3.2) and upstream methane leakage from gas plants (Section 8.3.2.3) are difficult to estimate with 100% accuracy. By requiring more paired RE, the project relies less on these complex "combined margin" calculations, leading to higher environmental integrity. What alternative pairing threshold would you propone? An alternative approach would be a "Phased Capacity-to-Generation" threshold: The Proposal: Require 100% capacity pairing by the end of the first crediting period (Year 5 or 7), rather than waiting until the end of the second. Additionally, implement a "MWh-for-MWh" matching requirement for the first 50% of retired generation to ensure that the timing of renewable generation aligns with the retired plant's historical load profile. What are the benefits and drawback to changing the pairing threshold? Benefits of Higher Thresholds (e.g., 50% at start,	

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		100% by Year 5) Maximized Climate Integrity: Higher thresholds ensure that the project is a "Coal-to-Clean" transition rather than just a "Coal Retirement" project that leaves the grid to figure out the replacement. Reduced Reliance on Marginal Emission Factors: Calculating the "Operating Margin" (Section 8.3.2.1) is contentious. Higher pairing reduces the impact of any errors in these grid calculations. Grid Stability Signaling: Higher thresholds force project proponents to invest in "Supporting Assets" (Section 6.5.2.9 in VMD0060), such as battery storage (BESS), which are necessary to make renewables a viable 1-to-1 replacement for baseload coal.	
3	Darcy Jones Carbon Credit Quality Initiative (CCQI)	We consider the revised pairing thresholds to be an improvement compared to version 1.0 of the methodology. Increasing the thresholds reduces the share of electricity that must be replaced by grid-supplied electricity and therefore mitigates the large uncertainties associated with leakage emissions under the methodology. However, despite these improvements, the revised thresholds do not adequately address the risk of unaccounted leakage. This is because, even with the revised pairing thresholds, a potentially significant share of the electricity previously generated by the retired CFPP may still be replaced by electricity from the grid, particularly during the first crediting period. As a result, the quantification of emission reductions continues to depend largely on the robustness of grid emission factors used to estimate leakage	Thank you for the comprehensive comment. Verra agrees that capacity-based pairing does not necessarily demonstrate equivalent energy replacement and that lower pairing levels increase reliance on grid emission factors. The latest version therefore uses annual generation, determined on a P90 basis, rather than installed capacity, and requires 100% replacement of the retired CFPP's annual generation by the end of the total crediting period, or the quantity required by the system operator, supported by annual milestones. Where grid backfill remains, the operating-margin factor is the higher of a generation-weighted and capacity-weighted calculation; all fossil plants that generated during the year are included, upstream methane from gas generation is added, and generation from previously mothballed coal plants is accounted for separately using a conservative

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		emissions. Here, the methodology continues to rely on using the operating and build margin emission factors. While the revisions made to the operating margin represent a meaningful improvement – particularly through the introduction of a capacity-weighted approach and the requirement to select the higher emission factor among two proxies – these approaches remain based on system-wide averages rather than on dispatch data and do not account for the considerable uncertainty associated with these approaches. We identify two integrity risks: • First, the approaches do not capture which specific power plants are operating at the margin and are affected by the reduction in coal-fired generation. For example, in some countries the coal power plants with the lowest efficiency – and thus the highest emission factor – are at the margin during periods in which renewable electricity generation is not available, whereas the average emission factor from fossil fuel power plants is much lower. In such countries, the methodology would overestimate emission reductions, by assuming a grid emission factor that does not represent the impact on the operating margin during times where renewable electricity is not available. • Second, while the new approach 2 in the methodology aims to better reflect the role of plants in the reserve margin, the use of a capacity-weighted average differs from established approaches such as the average operating margin used under the PACM, which is based on generation-weighted averages. Capacity weighting is not directly linked to actual electricity generation and may therefore misrepresent the emissions intensity of grid-based	subcritical-coal factor. Verra has not made dispatch-data analysis mandatory because sufficiently granular, consistent, and verifiable dispatch data are not available in all eligible jurisdictions. For IPP-owned plants, the methodology requires the IPP's no-new-coal commitment and ongoing monitoring; a host-country commitment is required where the plant is owned by a state-owned utility, reflecting the entities able to control the relevant investment decisions.

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		replacement. As a result, the approach introduces a different source of approximation rather than resolving the underlying limitation that simplified operating margin methods do not explicitly identify marginal generation and are thus associated with considerable uncertainty. These limitations introduce structural uncertainty in estimating the emission reductions associated with grid-based replacement. This is also recognized by the PACM methodological tool A6.4-AMT-007 "Emission from electricity generation and consumption" which assigns an uncertainty of 20% to the use of the simple operating margin emission factor (see table 4 in the tool). The implications of these limitations are directly linked to the level of the pairing thresholds: the lower the share of electricity replaced by renewable energy, the greater the reliance on grid emission factors and thus limited proxies for marginal emissions. Even with the revised operating margin approach, this dependence introduces uncertainty in leakage estimation, particularly in systems with rapidly evolving generation mixes. In addition, the use of pairing thresholds based on installed capacity rather than electricity generation reduces transparency of the methodology. CFPPs typically operate at substantially higher capacity factors than most renewable energy technologies, particularly intermittent sources such as solar and wind. As a result, replacing 100% of a CFPPs capacity does not imply that an equivalent amount of electricity generation is replaced. Basing pairing thresholds on electricity generation rather than capacity would therefore provide a more accurate	

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		representation of the extent to which fossil fuel-based generation is actually displaced. In the light of these considerations, further strengthening of the pairing requirements in our view is a key lever to strengthen the robustness of the methodology. In particular, requiring that a very high share, ideally 100%, of the electricity previously generated by the CFPP is replaced by electricity from renewable sources would reduce reliance on grid-based emission factors and thereby limit the impact of the uncertainties associated with operating and build margin approaches. Furthermore, the methodology does not address the considerable uncertainty associated with the weighing of the BM and OM. Where the proposed weighing is not representative, this could lead to considerable overestimation of emission reductions. The PACM methodological tool A6.4-AMT-007 "Emission from electricity generation and consumption" specifies uncertainty ranges for the weighing of the BM and OM. We suggest that consistent with the requirements of the PACM, the conservative value is selected from this range. Finally, while not directly related to the level of pairing thresholds, the effectiveness of these thresholds in reducing leakage risks is also influenced by broader system-level safeguards. In particular, ensuring that no new coal-fired generation capacity is added by other market participants is important to prevent leakage effects. In this context we recommend extending applicability condition 8 to projects where the CFPP is owned by an IPP. A publicly available commitment by the host country to	

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		not build new CFPPs and to not increase existing CFPP capacity in their jurisdiction should be in place for all projects, regardless of CFPP ownership.	

Q2: How do the revised pairing thresholds in Applicability Condition 16 (VM0052), in conjunction with Applicability Condition 10, improve or change how the methodology addresses the need for equivalence of service between the baseline and project scenario? What alternative approaches might offer even better outcomes?

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4	Dr. Prachi Ugle Safe Landing Climate, Sustainable Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	Not much difference it shall make. Why compare and embed two methodologies. Rather have a free methodology starting as project emissions avoided rather than having a benchmark threshold, it will,reduce double counting of emissions and also mitigate interoperability issues that often coincide with Fossil-fuels and renewables transitions. Harmonisation and standardisation is also	Thank you for the comment. VM0052 is intentionally used together with VMD0060 and VMD0061: VM0052 defines project eligibility, quantification, and monitoring; VMD0060 provides the baseline and additionality procedures; and VMD0061 provides the just-transition requirements. Separating these functions avoids duplication and allows the modules to be maintained and applied consistently while retaining a single auditable methodology framework.

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		another valid option.	The framework does not credit renewable generation as a stand-alone category of avoided emissions. It credits the demonstrated acceleration of CFPP retirement, after accounting for project emissions, grid backfill, mothballed generation, and relevant renewable-energy leakage. This structure is intended to prevent double counting rather than create it. Verra therefore has not replaced the linked methodology and modules with a separate 'Scope 4' approach.
5	Hendri Rantau Eco Sustainability	Condition 16 provides the energy volume, while Condition 10 provides the grid integrity. Together, they ensure that "service" is defined not just as energy (MWh) but as a stable, reliable power supply. Condition 16 (The "Quantity" of Service): Improvement: Higher thresholds ensure that the project is not just a "coal exit" that creates an energy vacuum for the grid to fill. It guarantees that at least a quarter of the retired "service" is physically present as clean energy from day one. This significantly narrows the "equivalence gap" compared to the previous 10% threshold. Condition 10 (The "Quality" of Service): Improvement: This addresses the "technical service" of coal that simple MW-for-MW pairing cannot—specifically inertia, frequency response, and voltage support. By requiring a reliability assessment, the methodology forces the project proponent to prove that	Thank you for the comment. Verra agrees that equivalence of service has both an energy and a system-reliability dimension. The latest version strengthens both. The pairing plan must identify annual generation on a P90 basis and achieve generation equivalent to 100% of the retired CFPP's annual generation by the end of the total crediting period, or the quantity required by the system operator. Separately, the system operator must confirm that the plan avoids material negative effects on consumer prices, electricity access, and grid stability, and provide the supporting rate-impact and reliability analysis, KPIs, and monitoring data. Verra has not prescribed a fixed dispatchable share, specific ancillary-service technologies, or dynamic capacity-crediting formula. Those solutions are system-specific and are better determined through the system operator's assessment. Where storage, synchronous condensers, or other supporting assets are required, VMD0060 includes their capital and fixed operating costs in the financial

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		the grid (potentially via the "Supporting Assets" mentioned in VMD0060 Section 6.5.2.9) can compensate for the lost baseload services of the CFPP. The revised methodology changes this in three ways: 1.Reduced Reliability Risk: The System Operator (via Condition 10) now acts as a gatekeeper. If the replacement plan doesn't provide "equivalent service" to maintain the grid, the project cannot proceed. 2.Forced Investment in BESS/Ancillary Services: To meet the higher thresholds of Condition 16 while satisfying the stability requirements of Condition 10, proponents are almost certainly forced to include Battery Energy Storage Systems (BESS) or Synchronous Condensers. 3.Cost Internalization: The cost of providing "equivalent service" is now better reflected in the Investment Comparison Analysis (VMD0060, Section 7.2). Proponents must account for the higher costs of firmed renewables (RE + Storage), which makes the additionality claim more robust. What alternative approaches might offer	assessment.

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		even better outcomes? A. "Firming" or Dispatchability Requirements Instead of just pairing capacity (MW), the methodology could require a minimum dispatchable percentage. B. Ancillary Service Mandates Coal plants provide critical "spinning inertia" that keeps grid frequency stable. C. Dynamic Capacity Crediting The "service" a coal plant provides is often most valuable during specific times (e.g., night-time peaks).	
6	Darcy Jones Carbon Credit Quality Initiative (CCQI)	The revised pairing thresholds in applicability condition 16 improve the likelihood that the methodology does not result in decreased grid reliability and energy security. Higher thresholds increase the share of electricity that is explicitly replaced with renewable energy and thereby reduce reliance on grid-based substitution which is associated with high uncertainty in emission outcomes. However, even in combination with applicability condition 10, the revised thresholds do not fully address the uncertainty associated with leakage emissions. Applicability condition 10 aims to ensure that the accelerated retirement does not have a material negative effect on system reliability, consumer prices, access to	Thank you for the comment. Verra agrees that physical reliability and emissions performance are distinct. The system-operator confirmation addresses consumer prices, electricity access, and grid stability; it does not by itself establish the emissions intensity of replacement generation. The latest version addresses this distinction by requiring pairing on the basis of annual P90 generation rather than installed capacity and by requiring full annual-generation replacement by the end of the total crediting period, or the quantity required by the system operator. Before that level is achieved, any unpaired portion remains subject to leakage deductions using a conservative operating-margin approach, with separate treatment of previously mothballed coal generation and upstream methane emissions from gas-fired generation.

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		electricity, or grid stability. This is an important safeguard for maintaining the physical delivery of electricity services. However, it does not provide information on the emission intensity of the electricity that replaces the retired CFPP generation. From a methodological perspective, it is important to distinguish between physical equivalence of service and emission impact. While applicability condition 10 aims to address the former, the latter depends on which generation sources respond at the margin to the removal of the CFPP capacity. The methodology does not ensure that this marginal response is low-emission. Replacement electricity may be supplied by a range of sources, including existing fossil fuel plants, new fossil capacity or renewable energy, depending on system conditions and market dynamics. As a result, the emission outcome of grid-based substitution remains uncertain. Applicability condition 10 can help mitigate extreme outcomes such as severe capacity shortages or increased reliance on high-emission backup generation (e.g. diesel generators). However, it does not materially reduce uncertainty regarding the carbon intensity of marginal generation and therefore cannot substitute for more stringent pairing requirements. To better achieve positive emission impacts, alternative approaches could include: • Defining pairing thresholds based on the	Verra has not added a separate emissions-intensity eligibility threshold for grid replacement because the methodology already quantifies and deducts those emissions. This retains applicability across different power systems while ensuring that higher-emitting backfill reduces credited emission reductions.

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		share of electricity generation replaced rather than installed capacity, thereby aligning the metric with the actual service provided. • Increasing the share of electricity that must be replaced through paired renewable energy, particularly in the first crediting period to reduce reliance on grid-based substitution. • Introducing additional requirements or constraints on the emissions intensity of replacement electricity.	

Q3: Are the proposed changes for determining the operating margin (VM0052) appropriate for accounting risks related to mothballed plants restarting and plants in the reserve margin increasing output? How would you improve the changes to better account for these risks?

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7	Dr. Prachi Ugle Safe Landing Climate, Sustainable	To a certain extent appropriate but does not provide benchmark and thresholds margins, reserves and use up (stockpile). What about	Thank you for the comment. The latest version provides explicit benchmarks and monitoring requirements for

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	Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	the tailpipe emissions they are natural totally being addressed in the methodology criteria.	reserve and replacement generation. The operating-margin emission factor is calculated annually as the higher of the generation-weighted and capacity-weighted approaches, using all fossil-fuel plants that generated electricity during the year and excluding low-cost/must-run sources. Electricity generated by CFPPs that were mothballed before the project and subsequently operate is accounted for separately, with a conservative subcritical-coal emission factor. Gas-fired generation also includes upstream methane leakage. Direct combustion emissions from grid-connected fossil plants are therefore included through the plant emission factors; relevant upstream gas emissions are also included. Verra has not introduced a separate stockpile or fuel-inventory threshold because leakage is quantified from actual electricity generation and applicable emission factors, rather than from fuel stocks that may not be consumed during the monitoring period.
8	Darcy Jones Carbon Credit Quality Initiative (CCQI)	The proposed revisions to the determination of the operating margin represent an improvement compared to the previous version of the methodology. However, limitations remain in fully addressing the risks associated with mothballed plants restarting and reserve margin plants increasing output: • Both calculation approaches rely on system-wide averages rather than reflecting actual dispatch behaviour. The key question for leakage estimation is which plants respond	Thank you for the detailed recommendations. Verra agrees that system-wide averages do not reproduce hourly marginal dispatch in every market. The latest version nevertheless strengthens conservativeness and feasibility by requiring the operating-margin factor to be the higher of an annual generation-weighted value and a capacity-weighted value, based on all fossil plants that generated during the year. It also retains explicit, separate accounting for generation from all CFPPs mothballed before the project; that generation is monitored annually and assigned a conservative subcritical-coal emission factor. Accordingly, a restart is not diluted within

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		at the margin to the removal of the CFPP generation. Neither the generation-weighted nor the capacity-weighted approach explicitly captures marginal dispatch. As a result, there remains uncertainty as to whether the operating margin accurately reflects the emission intensity of plants that increase generation in response to the project activity. • The revised approach no longer explicitly distinguishes cases where mothballed CFPPs could replace the retired capacity. While this simplifies the methodology and avoids reliance on default emission factors with high variability, it may reduce transparency in cases where such plants are a plausible source of replacement generation. In particular, if mothballed plants return to operation and generate significant volumes of electricity, their impact is only indirectly captured through changes in system averages, which may dilute their effect depending on the size of the grid. • The use of a capacity-weighted average as an alternative approach introduces additional uncertainty. Capacity-weighing does not reflect actual generation patterns and may overweight plants that have high installed capacity but low utilization. This is particularly relevant in systems with high shares of intermittent or underutilized capacity. As a result, the capacity weighted approach may not consistently approximate the emission intensity of marginal	the wider grid average. Verra has not made dispatch-data operating margins mandatory because granular, auditable dispatch data are unavailable or inconsistent in many eligible jurisdictions. Nor has it reclassified all historically underutilized coal generation as direct project leakage, because increases in output cannot necessarily be attributed to one retirement project; such output remains reflected in the annually updated operating-margin calculation.

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		generation. To further improve the treatment of these risks the following refinements could be considered: • Require project proponents to use the dispatch data operating margin to determine the operating margin emission factor, following the steps outlined in section 5.7.1.2.1 of PACM methodological tool A6.4-AMT-007 "Emissions from electricity generation and consumption". Using the dispatch data operating margin would allow determining during each hour which power plants are at the margin and using their emission factor. If mothballed plants start operation and are at the margin, they would then be automatically captured in the emission factor. • Where this is deemed unfeasible, refinements thar are less robust than using the dispatch data OM but which still would improve the current approach could include the following: oAdditional guidance on how to account for the potential return of mothballed CFPPs, including criteria or monitoring requirements to identify whether such plants contribute to replacement generation. oConsideration of alternative weighting approaches, such as generation-based averages that include all units which may better reflect system operation.	

Q4: Do the additional Sections 6.5.2.8 - 6.5.2.10 (VMD0060) provide better clarity on how to account for decommissioning costs, supporting assets (e.g., batteries), and government incentives? How could they be improved for further clarity? Are there missing elements?

Q4: Do the additional Sections 6.5.2.8 - 6.5.2.10 (VMD0060) provide better clarity on how to account for decommissioning costs, supporting assets (e.g., batteries), and government incentives? How could they be improved for further clarity? Are there missing elements?			
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9	Dr. Prachi Ugle Safe Landing Climate, Sustainable Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	Yes, the additional sections are providing provisional scope for reducing redundancies.	Thank you for the comment. Verra notes the support for the added provisions. The latest version retains separate treatment of stakeholder-specific decommissioning costs, the capital and fixed operating costs of supporting assets, and production-linked incentives. These inputs reduce ambiguity in determining the financially attractive retirement date and in the additionality assessment. No further change was made in response to this comment.
10	Darcy Jones Carbon Credit Quality Initiative (CCQI)	The additional sections improve the clarity and completeness of the financial assessment by introducing more explicit guidance on the treatment of decommissioning costs, supporting assets, and production-linked incentives. These elements are relevant for determining the financially attractive baseline retirement date and therefore indirectly affect the timing and volume of credited emission reductions. The following additional refinements could be considered: • Provide additional clarification regarding the treatment of uncertainty in decommissioning cost estimates, which likely vary substantially depending on regulatory requirements, site conditions and future cost	Thank you for the constructive suggestions. The latest version requires decommissioning costs to reflect the amount actually borne by the relevant stakeholder, net of government or third-party assistance, and permits either an overnight estimate or a discounted multi-year cost schedule. Supporting assets include storage and ancillary-service assets; their capital and fixed operating costs are included, while uncertain variable operating costs are conservatively excluded. Production-linked incentives offset renewable generation costs, with separate treatment for delayed monetization of non-refundable tax credits and project-specific analysis where needed. Data parameters require qualified third-party decommissioning estimates and public policy

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		developments. More explicit guidance on acceptable data sources or default values could help to improve consistency across projects • Explicitly incorporating production-linked incentives in the levelized cost calculations is a useful addition, as such incentives can materially affect the relative financial attractiveness of renewable energy investments. Also here, further clarification could be provided on how to treat uncertainty in future policy support, including potential changes to incentive schemes over time, which may affect long-term cost projections. In the context of uncertainty, we welcome that the new version of VM0052 in Appendix 2 now specifies that the financially attractive retirement date must be reassessed during crediting period renewal. This contributes to reducing the impact of uncertainty on overall emission reductions and ensures that assumptions and key parameters are frequently updated.	documentation for incentives. In addition, the current uncertainty framework requires the financial conclusions to remain robust to ±10% variation in the investment-analysis parameters. Verra considers these requirements sufficient to address estimation uncertainty consistently while avoiding prescriptive default costs that may be inappropriate across jurisdictions and sites.

Q5: Do the changes to the baseline scenarios (VMD0060) to evaluate the risk that plants would have been converted to gas or co-fire other fuels in absence of the project appropriately evaluate these scenarios? What risks are unaddressed? How could the evaluations be clearer?

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11	Dr. Prachi Ugle Safe Landing Climate, Sustainable Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	Transitional and operational risks are not addressed	Thank you for the comment. The latest VMD0060 expressly requires project proponents to identify and assess credible alternatives, including conversion to natural gas, biomass co-firing or firing, and reuse of major components. The assessment must consider compliance with law and the NDC, as well as systemic, infrastructure, fuel-supply, price-volatility, logistics, and other barriers under VT0009. If repurposing or component-reuse scenarios remain plausible after that assessment, the project is not eligible. In addition, VM0052 prohibits a retired CFPP from being repurposed to continue combusting fossil fuels. Verra considers that these provisions address the principal transition and operational risks relevant to baseline selection. Any project-specific risk not captured by the listed examples must still be assessed where it supports another plausible alternative that delivers similar output in the applicable geographic area.
12	Hendri Rantau Eco Sustainability	1. Are the Proposed Changes Appropriate? The methodology introduces a "higher of two approaches" rule for the Operating Margin (OM) calculation. It compares a generation-weighted average (Approach 1) against a capacity-weighted average (Approach 2). Effectiveness for Reserve Margin Risks: Highly Appropriate: By selecting the higher	Thank you for the detailed recommendations. The comment appears to address operating-margin and leakage treatment in addition to the baseline-scenario question. The latest version explicitly accounts for all electricity generated by CFPPs that were mothballed before the project and later operate, using a conservative subcritical-coal factor; it also updates the operating-margin factor annually and selects the higher of generation-weighted and capacity-weighted results. This addresses restarts and

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		emission factor (EF) between the two, the methodology accounts for a "worst-case" scenario where the most carbon-intensive plants in the reserve margin (typically older, less efficient coal units) increase their output to fill the gap left by the retired plant. Conservative Bias: Including all fossil fuel plants and excluding low-cost/must-run (LCMR) sources from the OM ensures that the leakage deduction is as high as possible, preventing proponents from "hiding" leakage behind a grid that is becoming greener elsewhere. Effectiveness for Mothballed Plants: Partial Effectiveness: The methodology specifically identifies mothballed plants as a leakage source. In Section 8.3 (Equation 7), generation from mothballed plants (EG_(MB,y)) is multiplied by a sub-critical coal emission factor and added directly to leakage. This creates a strong financial penalty for restarting "dead" plants. The "Mothballed" Loophole: The primary risk is the definition of "mothballed." A plant that is technically active but has a 2% capacity factor is not "mothballed" by standard definitions, but it essentially functions as one. If such a plant increases its output to 50%, it might only be captured in the general grid OM average rather than being penalized	increased fossil generation without relying on a delayed static factor. VMD0060 separately assesses conversion to gas, biomass co-firing or firing, and reuse of components as mandatory alternative baseline scenarios; if those scenarios remain plausible, the project is ineligible. Verra has not added a coal-supply diversion test because regional coal movements are difficult to attribute reliably to an individual retirement project, while resulting electricity generation by other grid plants is already captured through mothballed-generation accounting and the operating margin. The just-transition plan is governed separately by VMD0061.

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		as a specific "restart" leakage source. _____ 2. Recommended Improvements to Better Account for Risks To improve the robustness of the methodology against mothballed restarts and reserve margin "shuffling," the following changes are recommended: A. Replace "Mothballed" with "Under-utilized" (The "Coal Fleet Baseline") The Issue: The current approach only penalizes plants that were officially "inactive." Improvement: Establish a historical 5-year capacity utilization baseline for every remaining coal plant on the grid. Any generation by a remaining coal plant that exceeds its historical average (e.g., a plant jumping from 10% to 40% utilization) should be treated as direct leakage (EG_MB) rather than being averaged into the grid OM. Benefit: This prevents "load-shifting" to other existing coal plants that were technically active but rarely used. B. Use "Marginal" instead of "Simple" Operating Margin The Issue: The "Simple OM" is a generation-weighted average of the whole fleet. Improvement: Require a Dispatch Data	

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		Analysis (DDA) where data is available. If the retired CFPP was a baseload plant and the gap is being filled by "peaking" coal units (which are usually less efficient), the leakage should be calculated based on the emissions of the marginal unit (the next plant in the dispatch order) rather than the fleet average. Benefit: Accurately captures the emissions of the specific plants that "turn on" or "ramp up" because the project plant turned off. C. Shorten Data Lag Requirements The Issue: Grid emission factors often rely on data that is 2–3 years old. A mothballed plant could restart and run for two years before it impacts the OM used for credit deductions. Improvement: Require interim annual reporting of the capacity factors of the 10 most carbon-intensive plants on the grid. If any of these plants show a statistically significant increase in output, the project's credit issuance should be suspended or "buffered" until the updated OM is calculated. D. Expand the "Just Transition" Scope to Mines The Issue: While VM0052 excludes "mine-mouth" plants, a standard plant still supports a specific mine. If that mine remains open and simply sells its coal to a different plant (potentially an older, dirtier one), the emissions haven't left the system.	

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		Improvement: Include a "Supply Side Leakage" check. Proponents should demonstrate that the specific coal supply used by the retired plant is not being diverted to increase the output of other regional CFPPs.	
13	Darcy Jones Carbon Credit Quality Initiative (CCQI)	The revised requirements for establishing the baseline scenario are an improvement compared to the previous version, particularly through the explicit inclusion of additional alternative scenarios B3 and B4 covering a conversion to natural gas or co-firing biomass, and the reuse of plant components. These additions better reflect potential transition pathways. However, the assessment of alternative scenarios B3 and B4 relies mostly on barrier analysis to exclude the options fuel switching or repurposing. However, barrier analysis remains inherently subjective. Including an explicit requirement for VVBs to assess and confirm the plausibility of the barrier analysis outcome should therefore be considered. Alternatively, we recommend including a requirement to perform an investment analysis for alternative scenarios B3 and B4.	Thank you for the comment. Validation/verification bodies are already required under the VCS Program to assess the project description and determine whether the project has applied the methodology and supporting tools correctly, including whether evidence used in the baseline assessment is credible and sufficient. VMD0060 also requires the barrier analysis to follow VT0009 and provides project-specific barrier categories for the gas, other-fuel, and biomass repurposing scenarios. If baseline scenarios B3 or B4 remain plausible after the barrier analysis, the project is not eligible. Verra therefore considers an additional statement directing the VVB to confirm 'plausibility' to be duplicative. A mandatory investment analysis for B3 and B4 has also not been added, because reliable project-specific financial data for hypothetical repurposing or third-party component reuse may not be available; the standardized barrier-analysis procedure provides the applicable screening test.
14	Anonymous 1	In recent years, the cost of constructing renewable energy sources, particularly solar power plants, has decreased, reducing their additionality as an alternative to coal-fired power plants. To ensure sufficient additionality, shouldn't	Thank you for the comment. The methodology already limits crediting to the period of demonstrated acceleration. VMD0060 defines the baseline retirement date as the earliest applicable regulatory phaseout date, end of technical life, end of the long-term PPA, committed transition-mechanism date, or financially attractive retirement date. Baseline emissions cannot continue

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		the credit generation period be limited to the period during which the coal-fired power plant would have been operational? For example, if a coal-fired power plant capable of operating for 15 years is shut down after 10 years and replaced with solar power, the credit generation period would be only 5 years.	beyond that date. In the example provided, if the plant would credibly have operated for only five additional years absent the project, the retirement component could not generate emission reductions beyond those five years. The paired renewable electricity is also assessed for additionality, and generation from a counterfactual paired facility ceases to count once its baseline operational start date is reached. Declining renewable costs are reflected through the investment comparison, production-linked incentives, sensitivity analysis, and reassessment at crediting-period renewal. No additional fixed cap is therefore necessary.

Q6: How does a prorated uncertainty deduction in Section 8 (VMD0060) improve or detract from the overall conservativeness in the methodology framework, and what could be added or modified to further improve it?

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15	Dr. Prachi Ugle Safe Landing Climate, Sustainable Procurement Pledge, UNFCCC, UNSDGs Global Platform, IUCN	Keep a threshold limit for years between coal-fired power plant retirement and the transition to renewables, extent of acceleration of peaking time and interval, level of scale	Thank you for the comment. The earlier prorated uncertainty deduction has been removed from the latest draft. The current framework instead requires the financial conclusions used to determine the baseline retirement date and additionality to remain robust to ±10% variation in the

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			investment-analysis parameters. Separately, the pairing plan must include annual development, commissioning, and generation milestones, and must achieve annual P90 generation equivalent to the retired CFPP's annual generation by the end of the total crediting period, or the quantity required by the system operator. The baseline retirement date and accelerated retirement date already bound the period for which emission reductions may be credited. Verra therefore has not added a separate generic threshold for the number of transition years, peaking interval, or project scale, as these values are project- and system-specific and are addressed through the baseline, pairing plan, and system-operator assessment.
16	Hendri Rantau Eco Sustainability	1. How it Improves Conservativeness • Directly Penalizes Speculative Forensics • Statistical Alignment • Dynamic Risk Management 2. How it Detracts from Overall Conservativeness • Oversimplification of Risk Factors • Focuses Exclusively on Time • The "Linearity" Fallacy 3. Proposed Modifications to Improve the Framework	Thank you for the detailed proposals. The latest version no longer applies a linear prorated time deduction. Instead, uncertainty is addressed through a sensitivity analysis requiring the conclusions on the financially attractive retirement date and additionality to remain robust to ±10% variation in the investment-analysis parameters. This approach tests the project-specific financial model directly rather than assigning a generic deduction by forecast year. Verra has therefore not adopted the proposed data-quality tiers or exponential time curve. Reserve-margin and reliability risks are addressed through the system operator's required reliability assessment, KPIs, and ongoing monitoring, while emissions from grid backfill and mothballed coal generation are deducted as leakage.

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		To enhance the rigor of the uncertainty framework, the following modifications are suggested: A. Implement a "Data Quality Tier" Sliding Scale Instead of a flat 0.1 deduction, the factor should vary based on the quality of the financial evidence used in VMD0060 (Section 6.5). •Tier 1 (Factor 0.05): Use of audited, public utility commission rate-base data or government-published coal phaseout schedules. •Tier 2 (Factor 0.10): Standard project-developed financial models with verifiable evidence. •Tier 3 (Factor 0.15): Use of regional averages or estimates where specific plant-level O&M/fuel data is unavailable. B. Transition to an Exponential "Uncertainty Curve" To account for the fact that 15-year forecasts are significantly more speculative than 5-year forecasts, the deduction could be non-linear. •Proposal: 0.1 deduction for years 1–5; 0.15 for years 6–10; and 0.25 for years 11+. •Benefit: This would discourage highly speculative long-term claims while rewarding projects that focus on the "near-term" acceleration of coal retirement.	A pooled buffer has not been introduced because the methodology quantifies emission reductions ex post and does not treat CFPP retirement as a reversible carbon stock; a restart or other non-compliance is addressed through monitoring, leakage accounting, and the methodology's applicability and crediting requirements.

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		C. Link Uncertainty to the "Reserve Margin" (Condition 10) If a grid has a very low reserve margin (meaning it is desperate for power), the risk that a "retired" plant will be forced to restart by the government is higher. • Proposal: Increase the uncertainty deduction if the host country's reserve margin falls below a certain threshold (e.g., 10%). • Benefit: This integrates the technical reality of grid stability into the financial conservativeness of the credits. D. Combine Time-Deduction with a "Yield Buffer" In addition to deducting time from the crediting period, require a small percentage of credits (e.g., 5%) to be contributed to a specialized "Coal Transition Buffer" (similar to the AFOLU pooled buffer). • Benefit: This provides a secondary insurance policy against "reversal" (the plant restarting) or "leakage" that exceeds the initial calculations.	
17	Darcy Jones Carbon Credit Quality Initiative (CCQI)	We welcome that the methodology explicitly attempts to quantify uncertainty in the financially attractive retirement and encourage Verra to keep this requirement. We also welcome that the revised version of the methodology now provides the Monte	Thank you for the comprehensive comment. The Monte Carlo analysis, the one-sided 66.7% confidence interval, and the linear prorated deduction discussed in the comment have been removed from the latest version of VMD0060, so the associated recommendations are no longer applicable.

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		Carlo analysis that was performed to determine overall uncertainty in Appendix A. We do see, however, areas for further refinement: • First, the estimated overall uncertainty of approximately 10% (corresponding to +/- 2 years in many cases) may underestimate the true level of uncertainty. The Monte Carlo analysis focusses on a limited set of input parameter (e.g. fuel prices, carbon prices, cost of capital and capital expenditure), while explicitly excluding broader structural uncertainties such as changes in policy frameworks, market design, technology cost trajectories, and system evolution. These factors can materially influence the financial attractiveness of CFPP retirement and are likely to increase uncertainty beyond the estimated range. • Second, the use of normal probability distributions for all input parameters may not adequately reflect uncertainty. Key variables such as fuel and carbon prices often show skewed distributions, volatility clustering and structural breaks. Assuming normal distributions may therefore underestimate tail risks and lead to an overly narrow uncertainty range. • Third, the application of a linear prorated deduction (0.1 years per year of advancement) introduces a simplifying assumption that uncertainty scales proportionately with the length of the	The current framework requires sensitivity analysis of the parameters used in the investment analysis and requires the conclusions on both the financially attractive retirement date and additionality to remain robust to ±10% variation. This directly tests whether the result is sensitive to changes in the underlying financial assumptions. Because the methodology no longer estimates a statistical confidence interval, alignment to a 95% confidence bound is not directly applicable. Verra has also clarified that the uncertainty approach applies across the investment-analysis parameters rather than relying on a limited Monte Carlo input set. No further change is proposed in response to the superseded Monte Carlo and prorating provisions.

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		advancement period. In practice, uncertainty is likely to increase non-linearly over time, particularly for longer crediting horizons. This may limit the conservativeness of the deduction for projects with long advancement periods. • Fourth, the use of a one-sided 66.7% confidence interval provides only a moderate level of conservativeness. A substantial probability remains that the true financially attractive retirement date lies outside the adjusted range, which may not be fully consistent with the objective of ensuring conservative baseline determination. We note that the PACM generally uses a 95% confidence level when determining uncertainty. We further welcome the introduction of a requirement to perform a sensitivity analysis of the additionality assessment in section 7.2.3 of VMD0060. However, the requirement to vary assumptions by +/- 10% and the lack of explicit guidance to include all key parameter may limit its effectiveness. More comprehensive approaches, such as those under the PACM, require sensitivity analysis across all major cost and revenue drivers and may provide a more robust assessment of the stability of the results. To further improve the conservativeness and robustness of the uncertainty framework, the following refinements should be considered: • Expanding the scope of the Monte Carlo	

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		analysis to better reflect structural and long-term uncertainties. •Using probability distributions that better reflect empirical characteristics of key variables. •Revisiting the choice of confidence level to ensure adequate conservativeness by aligning it with the requirements of the PACM baseline standards, which requires that uncertainty must be determined at the lower bound of the uncertainty interval relative to the central estimate at 95% confidence level (see, for example, paragraph 64 of A.6.4-STAN-METH-004 version 1.0 in the context of baseline emissions,). •Strengthening sensitivity analysis requirements in section 7.2.3 to ensure comprehensive coverage of key parameters.	