

# SUMMARY OF PUBLIC CONSULTATION

## VMD0062 CO2 Capture from Natural Gas Processing, v1.0

A draft of *VMD0062 Module for CO2 Capture from Acid Gas Removal at Natural Gas Processing Plants, v1.0* was open for public consultation between September 29, 2025, to October 29, 2025. This document includes a list of all comments received and the developer’s response.

### KEY QUESTIONS

Q1: To be eligible under VM0049 Carbon Capture and Storage, the capture facility must produce a CO2 stream with a minimum concentration of 95% purity (section 4 (5) (a)). Do you foresee any issues with projects using this module meeting that requirement? Are there other tolerances or safeguards related to the purity of the CO2 stream that should be considered?

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#	Organization	Comment	Verra’s Response
1	CCS Brasil	<p>We do not foresee major technical barriers for projects to meet the 95% CO<sub>2</sub> purity requirement, as most acid gas removal (AGR) processes (e.g., amine-based systems) are designed to deliver high-purity CO<sub>2</sub> streams. However, operational variability, solvent degradation, and the presence of H<sub>2</sub>S or other contaminants could affect purity. We recommend that the module include:</p> <ul style="list-style-type: none"> <li>-Clear tolerances for temporary deviations (e.g., short-term fluctuations below 95%).</li> </ul>	<p>Thank you for your feedback.</p> <p>Requirements for monitoring and reporting on CO<sub>2</sub> streams is covered in VM0049. As such, we will consider your recommendations in future revision to VM0049.</p>

**Q1: To be eligible under VM0049 Carbon Capture and Storage, the capture facility must produce a CO<sub>2</sub> stream with a minimum concentration of 95% purity (section 4 (5) (a)). Do you foresee any issues with projects using this module meeting that requirement? Are there other tolerances or safeguards related to the purity of the CO<sub>2</sub> stream that should be considered?**

#	Organization	Comment	Verra's Response
		<p>-Safeguards requiring monitoring and reporting of CO<sub>2</sub> purity at regular intervals.</p> <p>-Guidance on acceptable conditioning steps (e.g., dehydration, polishing) to ensure compatibility with transport and storage.</p>	
2	Anonymous 1	<p>We do not anticipate material issues meeting the ≥95% CO<sub>2</sub> purity requirement for projects that fall under this module.</p> <p>At a technical level, amine-based acid gas removal (AGR) systems at natural gas processing facilities routinely generate an acid gas stream that is overwhelmingly CO<sub>2</sub>, with typical CO<sub>2</sub> purity in the ~95–99 percent range after solvent regeneration. That is inherent to how these systems are designed: the solvent (e.g., an amine) is selectively absorbing CO<sub>2</sub> and other acid gases from the inlet gas, and the regenerator then produces a concentrated CO<sub>2</sub>-rich off-gas. In most conventional fields, the composition of that off-gas already aligns with what this module requires.</p> <p>There are possible edge cases in high-H<sub>2</sub>S basins where H<sub>2</sub>S content in the separated stream is elevated enough that the CO<sub>2</sub> fraction could fall below the typical 95–99 percent range. Those cases tend to be self-limiting for CCS project development, and should they occur, equipment such as an H<sub>2</sub>S Scavenger will likely be incorporated into the project design. Operators handling extremely sour gas already face stricter handling, safety, permitting, and injectivity constraints for any subsurface disposition of that acid gas stream. In practice, those are not the facilities most likely to pursue geologic storage under a voluntary CCS crediting program, because the tolerance limits for storage, transport, materials selection, corrosion management, and regulated Class VI-style well design become more complex as H<sub>2</sub>S concentration rises.</p> <p>In other words, the population of plants that are likely to pursue permanent storage will largely be plants that are already generating a</p>	Thank you for your feedback.

**Q1: To be eligible under VM0049 Carbon Capture and Storage, the capture facility must produce a CO<sub>2</sub> stream with a minimum concentration of 95% purity (section 4 (5) (a)). Do you foresee any issues with projects using this module meeting that requirement? Are there other tolerances or safeguards related to the purity of the CO<sub>2</sub> stream that should be considered?**

#	Organization	Comment	Verra's Response
		<p>CO<sub>2</sub>-rich stream with limited non-CO<sub>2</sub> contaminants. Those streams generally satisfy a 95 percent purity test without additional polishing.</p> <p>From a commercial/infrastructure standpoint, a CO<sub>2</sub> stream at or above 95 percent purity is already expected if the CO<sub>2</sub> is going to be transported by pipeline at any point. Pipeline CO<sub>2</sub> specifications (and even trucked/liquefied CO<sub>2</sub> specs in many markets) assume a predominantly CO<sub>2</sub> stream to avoid corrosion, phase behavior issues, and safety complications. Because pipeline transport is the most likely mode for at least one segment of CO<sub>2</sub> movement in most CCS projects at gas processing plants, project developers already have a strong operational incentive to deliver a high-purity CO<sub>2</sub> product.</p> <p>Outside the United States, different transport modes (for example, short-haul trucking to a nearby injection hub) or different end uses (for example, mineralization or utilization pathways) may have slightly different impurity tolerances. However, a ≥95 percent CO<sub>2</sub> threshold is broadly consistent with European CO<sub>2</sub> transport and storage specifications and aligns with how most large-scale CO<sub>2</sub> pipeline systems and storage hubs are being engineered. It is therefore reasonable as a global floor.</p>	
3	Anonymous 2	We consider a threshold of 95% or above to be appropriate.	Thank you for your feedback.
4	CCS+ Initiative	95% purity is achievable with AGR.	Thank you for your feedback.
5	Anew	We recognize the importance of ensuring high-purity CO <sub>2</sub> streams for effective sequestration. However, we foresee challenges for acid gas injection (AGI) projects, particularly in sour fields with high H <sub>2</sub> S concentrations. Achieving 95% CO <sub>2</sub> purity would necessitate additional processing to separate, treat, and dispose of the H <sub>2</sub> S (ex. flaring), which introduces:	<p>Thank you for your feedback.</p> <p>The recommendation to eliminate the concentration threshold is not consistent with the goal of maximizing CO<sub>2</sub> injection and storage. Contaminants such as H<sub>2</sub>S reduce the space available for CO<sub>2</sub> in storage facilities.</p> <p>The requirement for 95% purity is in place to ensure the</p>

**Q1: To be eligible under VM0049 Carbon Capture and Storage, the capture facility must produce a CO<sub>2</sub> stream with a minimum concentration of 95% purity (section 4 (5) (a)). Do you foresee any issues with projects using this module meeting that requirement? Are there other tolerances or safeguards related to the purity of the CO<sub>2</sub> stream that should be considered?**

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		<p>i. Increased energy consumption and associated emissions.</p> <p>ii. Potential safety risks related to H<sub>2</sub>S handling.</p> <p>iii. No change in gross CO<sub>2</sub> injected, but reduced net offset credits due to higher project emissions and leakage pathways.</p> <p>Each project has unique characteristics that are beyond the developer's control. However, they all share a common goal: maximizing the amount of CO<sub>2</sub> injected. This should be the primary metric for evaluation. Requiring a minimum concentration threshold does not yield a meaningful net benefit and may discourage otherwise viable projects.</p> <p>Recommendation: Eliminate the minimum concentration threshold requirement as this would create unnecessary and burdensome constraints that results in increased project emissions.</p>	<p>most efficient use of limited storage capacity and to safeguard the integrity of the expensive transportation and storage infrastructure.</p> <p>That said, we will consider your suggestion in the next revision to VM0049.</p>

Q2: Leakage emissions arising from the use of electricity for acid gas conditioning processes is currently not an emissions source that is accounted for in the module. It is assumed that the increase in demand for electricity from the project will not be significant and can be covered by the operating margin of the relevant grid, and thus, will not cause other users of the grid to seek alternative sources of energy to meet their needs. Is this assumption conservative? Are there scenarios where this assumption would not be true?

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6	Anonymous 1	<p>The module currently assumes that incremental electricity demand from project activities (e.g., compression, conditioning of the AGR off-gas, dehydration of the CO<sub>2</sub> stream, etc.) does not materially alter system-wide grid dispatch and therefore does not create material "leakage" emissions beyond what is already captured in project accounting. We view that assumption as conservative for the systems that matter most to this project type.</p> <p>In a power market like ERCOT (Texas), which is where many U.S. gas processing and CO<sub>2</sub> storage projects are located today, the absolute load associated with CO<sub>2</sub> conditioning and compression for a single natural gas processing facility is very small compared to total system load. These are incremental parasitic loads on the order of megawatts or sub-megawatts, in a system that regularly dispatches tens of gigawatts. In that context, the project's added electricity draw is absorbed by the normal operating margin of the grid without requiring meaningful new firm generation capacity. As a result, treating that incremental draw as de minimis from a leakage standpoint is reasonable.</p>	Thank you for your feedback.

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		<p>Put differently: you are not building a new peaking plant just to run amine regeneration reboilers or CO<sub>2</sub> compressors. You are adding incremental load to an already flexible grid stack. That incremental load is already reflected in Scope 2 accounting on the project side (i.e., project emissions from purchased electricity), which the module captures in project emissions. The leakage test is specifically about whether the project forces other grid users to go find new, higher-emitting generation, and in most realistic CCS-at-gas-plant cases that is not happening at any meaningful scale.</p> <p>Could there be scenarios where the assumption is less conservative? Theoretically, yes, in a very small or isolated grid where incremental compression and conditioning load is material relative to available capacity, or in an off-grid scenario where project electricity is met through diesel or other on-site generation and that generation is not being captured in the project emissions tally. But those scenarios are not representative of the dominant deployment pathway this module is trying to credit: large-scale natural gas processing in established basins tied into mature grid infrastructure.</p>	
7	Anonymous 2	This is a conservative assumption, and we believe it is appropriate.	Thank you for your feedback.
8	Anew	<p>Based on our analysis of our operating projects, incremental energy demand for conditioning is minimal and therefore grid impact is negligible and unlikely to displace other users. This is a conservative and well-supported assumption, and we do not foresee any realistic scenarios where this assumption would not hold true.</p> <p>Recommendation: Maintain the current assumption. optional reporting pathway for projects with higher-than-average energy demands.</p>	Thank you for your feedback.

Q3: Methane emissions from leaks and venting events related to on-site natural gas use is accounted for as a source of project emissions in the module for conservativeness. Based on your knowledge of standard operating procedures for natural gas processing plants, are “blowdown” or venting events that result in the release of methane typical? Or is it more likely that consumption of natural gas would simply stop when facilities or equipment are shutdown?

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#	Organization	Comment	Verra’s Response
9	CCS Brasil	Blowdown and venting events are indeed part of standard operating procedures in natural gas processing plants, particularly for safety and maintenance. While not continuous, they can be significant sources of methane emissions. In many cases, gas flow is stopped during shutdowns, but emergency or planned depressurization still occurs. Therefore, including methane from venting as a conservative source of project emissions is appropriate. We recommend encouraging best practices such as flare routing or recovery systems to minimize methane release.	Thank you for your feedback. No change to the requirement to account for this emission source.
10	Anonymous 1	The module conservatively includes methane releases from leaks and venting of on-site natural gas used to operate the capture system as a project emission source. That’s appropriate, but in normal operations we would not expect large, routine blowdowns of fuel gas lines solely due to CCS operations.  In practice, methane that is combusted as fuel (for example, to run heaters, reboilers, or small on-site drivers) is consumed during normal operation of the equipment. If that equipment is shut down, standard practice is simply to stop feeding fuel gas. You do not typically depressurize and blow down the entire facility’s fuel header to atmosphere every time you pause CO <sub>2</sub> compression or amine regeneration. The only times you would “hard vent” are during	Thank you for your feedback. No change to the requirement to account for this emission source.

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		<p>maintenance, safety-related isolation, upset conditions, or whole-facility shutdowns.</p> <p>During a whole-facility shutdown or emergency depressurization (“plant blowdown”), you are typically also shutting down the amine unit, CO<sub>2</sub> conditioning skid, and any CCS-related compression. In other words, if you are depressuring the entire natural gas processing facility, then the CCS-related equipment is down anyway. There is not a scenario where the CCS project continues to run and forces repeated additional blowdowns that wouldn’t already have occurred. The marginal effect of CCS on blowdown frequency is therefore very small.</p> <p>Where there could be incremental emissions is in small-bore lines associated specifically with the CCS add-on (fuel to a specific CO<sub>2</sub> compressor driver, small slipstreams, etc.), and in fugitive emissions from valves, flanges, or connectors added as part of the CCS equipment. The module is already structured to conservatively include those as project emissions.</p>	
11	CCS+ Initiative	Normally there should not be any CH <sub>4</sub> venting because of safety risks with CH <sub>4</sub> . But then the CH <sub>4</sub> could be flared (as safety flaring). If the event is too long, the unit should be stopped	<p>Thank you for your feedback.</p> <p>No change to the requirement to account for this emission source.</p>
12	Anew	<p>While not typical, blowdowns and venting events may occur during shutdowns to ensure safe working conditions. These events can release small residual volumes of methane.</p> <p>Recommendation: Continue to include these emissions in project accounting for conservativeness. For improved accuracy, consider allowing project developers to estimate annual blowdown frequency and associated emissions.</p>	<p>Thank you for your feedback.</p> <p>No change to the requirement to account for this emission source.</p>

Q4: The module is applicable to project activities that take place at natural gas processing plants in operation on September 1, 2025 (existing natural gas processing plants). Restricting eligibility to existing facilities was intended to provide an incentive for operators to mitigate the emissions from natural gas processing associated with current levels of natural gas use, and 2) to avoid providing an incentive that would help extend reliance on natural gas at the expense of the access and market-share of lower-carbon alternatives. In your opinion, does crediting a project that reduces the upstream emissions of a fuel or energy product contribute to extending the reliance on fossil fuels or represent carbon lock-in? What would the consequences or implications of extending eligibility to processing plants that began operations after this date? If eligibility were to be extended to new processing capacity, should it only apply to plants built with the intention of CCS or should it apply to all processing plants?

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13	CCS Brasil	Crediting projects at existing facilities helps mitigate current emissions without incentivizing new fossil infrastructure. Extending eligibility to new plants could risk carbon lock-in if it encourages additional natural gas capacity. If eligibility were extended, it should be limited to plants explicitly designed with CCS integration from the outset, with safeguards to ensure that CCS is not used to justify expansion of fossil fuel reliance at the expense of renewables.	Thank you for your feedback. The proposed module has been revised to apply to both existing and greenfield processing facilities
14	Anonymous 2	CCS (Carbon Capture and Storage) should be applied to all natural gas processing facilities, not only those built with the intention of CCS or	Thank you for your feedback. The proposed module has been revised to apply to both

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		<p>those operating before a certain date. The main reason is that CCS adoption at natural gas processing facilities is currently very limited. Without strong incentives, it is unlikely that CCS, which is a practical and realistic decarbonization solution, will be implemented at a meaningful scale, regardless of whether the facility is new or existing.</p> <p>Given that reliance on natural gas is likely to continue in the foreseeable future, it is crucial to maximize CO2 reductions wherever possible. By extending eligibility to all processing facilities, the deployment of CCS can be accelerated, leading to greater overall emission reductions. This approach supports more effective climate action and does not undermine the transition to lower-carbon alternatives, as it focuses on reducing emissions from necessary and ongoing natural gas use.</p>	existing and greenfield processing facilities
15	CCS+ Initiative	<p>The module should not be limiting its applicability to the existing natural gas processing plants. It is important that it allows new natural gas processing plants. It would not provide an incentive for natural gas lock in for fossil fuels emissions. For instance, the use of natural gas is decoupled from its production in LNG markets. NG consumption is not related to a specific production project. NG demand can be met by any project in the world.</p> <p>Today the world wide common practice is to release the extracted CO2. There are really only a few CCS from Acid Gas Removal in Natural Gas Processing Plants running in the world today. The module should rely on the common practice tool to for the eligibility of the project. Once CCS from Acid Gas Removal in Natural Gas Processing Plants becomes common practice, it will not be eligible any more.</p>	<p>Thank you for your feedback.</p> <p>The suggestion to rely on common practice testing is confusing. The commonality or novelty of an activity is irrelevant to whether an instance of that activity perpetuates reliance on fossil fuels.</p> <p>The proposed module has been revised to apply to both existing and greenfield processing facilities.</p>

**Q4:** The module is applicable to project activities that take place at natural gas processing plants in operation on September 1, 2025 (existing natural gas processing plants). Restricting eligibility to existing facilities was intended to provide an incentive for operators to mitigate the emissions from natural gas processing associated with current levels of natural gas use, and 2) to avoid providing an incentive that would help extend reliance on natural gas at the expense of the access and market-share of lower-carbon alternatives. In your opinion, does crediting a project that reduces the upstream emissions of a fuel or energy product contribute to extending the reliance on fossil fuels or represent carbon lock-in? What would the consequences or implications of extending eligibility to processing plants that began operations after this date? If eligibility were to be extended to new processing capacity, should it only apply to plants built with the intention of CCS or should it apply to all processing plants?

#	Organization	Comment	Verra's Response
16	Anew	<p>We understand the intent behind restricting eligibility to natural gas processing plants operational by September 1, 2025—namely, to avoid incentivizing new fossil infrastructure and to focus on mitigating emissions from existing operations. However, we believe this restriction may unnecessarily limit the potential for meaningful emissions reductions.</p> <p>Our position is that eligibility should not be tied to a fixed operational start date. Instead, the methodology should focus on the intent and design of the CCS project itself, particularly its ability to demonstrate additionality and deliver measurable climate benefits.</p> <p>Recommendation: Rather than applying a blanket cutoff date, we suggest that eligibility be extended to all natural gas processing plants—existing and new—provided they meet robust additionality criteria. Specifically:</p> <ul style="list-style-type: none"> <li>i. Existing projects should demonstrate that CCS implementation was not economically viable without carbon credits.</li> <li>ii. New facilities should show that CCS was integrated into the design from the outset, with clear emissions reduction objectives.</li> </ul> <p>This approach ensures that VCUs are used to enable emissions-reducing projects, regardless of facility age, while maintaining environmental integrity and avoiding perverse incentives.</p>	<p>Thank you for your feedback.</p> <p>Additionality testing does not address carbon lock-in.</p> <p>The proposed module has been revised to apply to both existing and greenfield processing facilities.</p>

Q5: If eligibility was extended to greenfield natural gas processing plants, how should facilities be evaluated to ensure the plant's development was not specifically enabled by the CCS project's potential VCUs? For example, would requiring the demonstration of a material separation in time between the processing plant's start of operations and the notice to proceed with development of the CCS project be acceptable?

**Q5: If eligibility was extended to greenfield natural gas processing plants, how should facilities be evaluated to ensure the plant's development was not specifically enabled by the CCS project's potential VCUs? For example, would requiring the demonstration of a material separation in time between the processing plant's start of operations and the notice to proceed with development of the CCS project be acceptable?**

#	Organization	Comment	Verra's Response
17	CCS Brasil	<p>If eligibility is extended to greenfield plants, safeguards are essential. One option would be requiring a demonstrable separation in time between the commissioning of the processing plant and the CCS project's development decision. Additional safeguards could include:</p> <p>Independent assessment of whether the CCS project was a condition for plant financing or permitting.</p> <p>Evidence that the plant would have been built regardless of CCS crediting opportunities.</p>	<p>Thank you for your feedback.</p> <p>Verra appreciates your suggestion to include safeguards.</p> <p>However, the suggestion to limit eligibility to projects without a financing barrier is not consistent with the additionality tests in Section 7 of VM0049.</p>
18	CCS+ Initiative	<p>Requiring the demonstration of a material separation in time between the greenfield processing plant's start of operations and the notice to proceed with development of the CCS project is not a good idea and would be detrimental to the environment. It would hamper synergies between the CCS project and the processing plant and lower the chance to have a CCS project. A CCS project is a complex project requiring years of studies and field testing to ensure that the geological storage that will be used is reliable (no CO2 losses, and with the proper injection capacity).</p> <p>The proper way to decide on greenfield processing plant eligibility is to rely on the host country. If the host country put in place a legislation that explicitly grants the greenfield operating license under the condition that the company is storing the native CO2, then it should not</p>	<p>Thank you for your feedback.</p>

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#	Organization	Comment	Verra's Response
		be eligible to carbon credits.	
19	Anew	<p>If eligibility is extended to greenfield natural gas processing plants, we continue to argue that the evaluation should focus on the intent and climate benefit of the CCS project, rather than the timing of its development relative to the processing plant.</p> <p>VCUs should be used to enable emissions-reducing projects, and the most appropriate criteria for assessing additionality are:</p> <ul style="list-style-type: none"> <li>i. Financial additionality: Demonstrating that the CCS project would not be economically viable without the support of carbon credits.</li> <li>ii. Market penetration: Evaluating whether the underlying CCS technology is widely adopted or still emerging.</li> </ul> <p>Requiring a material separation in time between the start of plant operations and the CCS project is not a meaningful indicator of additionality and may exclude projects that were designed with integrated emissions mitigation from the outset.</p> <p>Recommendation: Eligibility should be extended to all processing plants—existing and new—provided they meet robust additionality criteria. This ensures that the methodology supports the deployment of CCS where it is most needed and effective, without imposing arbitrary temporal constraints that could hinder innovation or climate impact.</p>	Thank you for your feedback.

Q6: Do Figures 1–2 (boundary & sources) capture the full set of capture-side units typically seen at natural gas plants (e.g., amine unit, AGR offgas conditioning, dehydration, compression, amine regen utilities), or are there common omissions we should add?

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20	CCS Brasil	<p>Figures 1–2 capture the main units, but some common elements could be clarified or added:</p> <ul style="list-style-type: none"> <li>Amine regeneration utilities (steam, cooling).</li> <li>-Acid gas removal (AGR) off-gas conditioning units.</li> <li>-Dehydration and compression systems explicitly identified.</li> <li>-Fugitive sources from ancillary utilities (e.g., steam boilers, cooling towers).</li> <li>-Adding these would improve completeness and reduce ambiguity in boundary setting.</li> </ul>	<p>Thank you for your feedback.</p> <p>Figures 1 and 2 are intended to be representative and not exhaustive.</p>
21	Anonymous 1	<p>Yes. The capture-side boundary shown in Figures 1–2 (amine/acid gas removal unit, amine regeneration system, off-gas/acid gas conditioning and compression, dehydration, and supporting utilities) is consistent with what we see in practice at natural gas processing plants where CO<sub>2</sub> is being separated for potential storage. We do not see a common, material capture-related unit operation that is missing.</p>	<p>Thank you for your feedback.</p>
22	CCS+ Initiative	<p>Add Emissions from Thermal Oxidizer of gas stream from the rich amine flash drum (part of the amine unit). I can exit in some cases</p>	<p>Thank you for your feedback.</p> <p>Figures 1 and 2 are intended to be representative and not exhaustive.</p>
23	Anew	<p>This seems to be capturing the major components associated with the acid gas injection and CCS operations.</p>	<p>Thank you for your feedback.</p>

# GENERAL FEEDBACK

## Section 3 – Definitions

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24	Anonymous 1	<p>We appreciate the opportunity to provide comments on the draft module. Our goal is to help ensure that the definition of “existing natural gas processing plant” is durable, auditable, and aligned with how this project type operates in practice. As written, the fixed commissioning date restricts eligibility in a way that will quickly become outdated and will exclude facilities that are already in sustained commercial service at the time a CCS project reaches final investment decision (FID). We recommend replacing the fixed, calendar-date definition of “Existing natural gas processing plant” with a simple, future-proof test anchored to FID and sustained operations. This preserves the module’s intent (eligibility limited to pre-existing facilities), improves global applicability, and remains verifiable with routine facility records or publicly available filings.</p> <p>Recommended definition</p> <p>Existing natural gas processing plant: A natural gas processing plant that has been in commercial operation for at least six (6) months prior to the CCS project’s final investment decision (FID).</p> <p>Gas Demand Expansion Will Drive New Processing Capacity Irrespective of Crediting</p> <p>Market fundamentals, not carbon crediting, are driving new gas handling infrastructure. Federal outlooks and market data point to record U.S. gas consumption in 2025, a step-change in LNG export capacity now commissioning, and global demand growth that remains positive on a multi-year basis. Recent federal outlooks show record U.S.</p>	<p>Thank you for your feedback.</p> <p>The proposed module has been revised to apply to both existing and greenfield processing facilities.</p>

## Section 3 – Definitions

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		<p>natural gas consumption in 2025 and continued export-led growth, even as generation shares shift among fuels. The EIA projects U.S. gas use to reach a new high in 2025 and highlights 5+ Bcf/d of LNG capacity scheduled to enter service in 2025–2026, with North American LNG export capacity expected to more than double by 2029 given projects already under construction(U.S. Energy Information Administration, Short-Term Energy Outlook (STEO), August 2025</p> <p>These dynamics necessitate incremental gathering, treating, and processing capacity to condition produced gas for transport and export. New gas processing plants will therefore proceed on a commercial basis irrespective of voluntary credit eligibility. The module should acknowledge that processing build-out follows upstream and export economics; the integrity objective is not to arrest demand-driven infrastructure but to ensure that where CO<sub>2</sub> is unavoidably produced and separated, secure geologic storage is available and creditable when it delivers real, additional, and monitored reductions consistent with program safeguards.</p> <p>Consistent with ICVCM Concerns</p> <p>The ICVCM framework seeks compatibility with the global transition to net-zero by discouraging mitigation activities that lock in long-term GHG emissions even when such activities deliver short-term reductions. To enforce this principle, ICVCM identifies ineligible categories (e.g., CCS used for EOR, unabated coal power, and most unabated fossil electricity outside narrowly defined transition contexts). Our pathway, CO<sub>2</sub> capture from acid gas removal at natural gas processing facilities, is not among those excluded categories.</p> <p>A fixed, historic commissioning date risks sidelining credible abatement at facilities that will be built to serve market demand. A future-proof test tied to sustained pre-FID operations achieves the integrity objective, preventing plants being sized or timed to qualify for crediting, without arbitrarily excluding new processing assets that will exist regardless. This approach is consistent with ICVCM's lock-in guardrail, because the module's existing applicability, baseline, and leakage</p>	

**Section 3 – Definitions**

#	Organization	Comment	Verra's Response
		provisions already assure that credited outcomes reflect net reductions at the project boundary. In short, limiting eligibility to legacy plants does not advance decarbonization; it strands viable emissions reductions at facilities that will operate either way. The pre-FID sustained-operations test is the cleaner and more globally auditable path.	
25	CCS+ Initiative	<p>The sentence "examples include aqueous potassium hydroxide (KOH) and amine supported on activated carbon" are examples with low TRL, can this be replaced with more common examples?</p> <p>Under "Natural gas processing plant" it is mentioned "pipeline-quality dry natural gas and hydrocarbon by-products". Dry is too restrictive as wet gas quality could be produced and transported.</p>	<p>Thank you for your feedback.</p> <p>The reference to KOH removed.</p> <p>No change made to the definition of a natural gas processing plant.</p>
26	Anew	<p>"A natural gas processing plant in operation on 1 September 2025."</p> <p>We suggest revising this to August 2025 if Verra announced its intention to develop this module at this time.</p> <p>Can Verra comment on if there will be any flexibility on the validation timeline requirement outlined in the VCS? Specifically, non-AFOLU projects are required to be validated within four years of the project start date when using a new approved Verra methodology.</p>	<p>Thank you for your feedback.</p> <p>The proposed module has been revised to apply to both existing and greenfield processing facilities. The definition referred to in the comment has been removed.</p>

**Section 4 – Applicability Conditions**
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#	Organization	Comment	Verra's Response
27	CCS+ Initiative	The first sentence "...project activities that capture CO2 separated from raw natural gas streams..." - Usually there is no capture unit on the CO2 stream separated from the raw natural gas. The separated CO2 stream is usually enough concentrated. Clarify whether the module considers	<p>Thank you for your feedback.</p> <p>Text revised to improve clarity.</p>

## Section 4 – Applicability Conditions

#	Organization	Comment	Verra's Response
		<p>an additional capture unit and modify the sentence to be more specific.</p> <p>The first sentence "... at natural gas processing plants..." - AGRU are also installed in some instances on the production platform, would this also be applicable to these locations?</p> <p>Under point 2, can cryogenic processes be added?</p> <p>Under point 3, specify that regeneration only applies to chemical and physical absorption or adsorption, not to the other processes.</p>	<p>The definition of natural gas processing plant is provided in section 3 and does not specify the location of that facility.</p> <p>No rationale is provided for the inclusion of cryogenic processes in point 2.</p> <p>No rationale is provided for the suggested change to point 3.</p>
28	Anew	Section 4 Page 6 - "Project activities comprise upgrades to existing natural gas processing facilities or changes in operational practices leading to improved capture efficiency."	Unclear how to address this comment.

## Section 5 – Procedures

### Section 5 – Procedures

#	Organization	Comment	Verra's Response
29	CCS+ Initiative	<p>Point 1 under commonly used equipment and processes "... (e.g., fans);" - fans are commonly used for capturing flue gas, for AGR compressors are more common.</p> <p>Point 5 under commonly used equipment and processes "... (air separation units)..." ASU can be used in oxy-combustion mode, which is specific to CO2 capture on flue gas. If this document covers such cases, it has to be clearly stated in the summary.</p> <p>Point 5 under commonly used equipment and processes "..., steam systems)" - electricity systems can be added here for completeness.</p>	<p>Thank you for your feedback.</p> <p>Point 1: Revised text</p> <p>Point 5: This module does not cover flue gas capture.</p> <p>Point 5: Thank you for your feedback.</p> <p>5.1 - This module applies to the diversion of CO2 towards storage that would have been released to atmosphere from the processing of natural gas streams in the absence of the project. It would be redundant to</p>

**Section 5 – Procedures**

#	Organization	Comment	Verra's Response
		<p>5.1 Module Boundary</p> <p>It would be clearer if there is a short paragraph on the acid gas removal process, stating that the capture and processing facility is often already in place as shown in Table 1, as the quality of the gas needs to be improved before it can be transported and used. However, the carbon market eligibility is in the permanent storage of the CO2 versus the common practice of venting it to the atmosphere.</p> <p>5.2 point 1 after "remaining alternative ..." it states "storge" to be changed to "storage"</p> <p>5.3.1 EFfuel,CO2,d, where it states "sustainable biomass" either add a footnote or add a sentence where the definition of sustainable biomass can be found.</p> <p>5.3.1 Equation 3 is also used in other modules of VM0049. However, in Table 1, the fuel consumption from capture facility is not included in the emissions considered as part of project emissions. It is considered for the acid gas conditioning processes. the naming/definition of the parameters need to be adjusted to fit this module. In the same equation for the definition of the efficiency for heat, the title of the TOOL09 is not necessary to be repeated as it is part of chapter 2 Sources. Or a footnote can be added.</p> <p>5.4 Equation 5 is speaking about LEFuel,y, but in the description LEElec,y is given, while in 5.4.1 LEFuel,y is explained.</p>	<p>restate that the processing facility is in place.</p> <p>5.2 - Corrected in text</p> <p>5.31. - Sustainable biomass is defined in the VCS Program definitions to which this module is subject. An additional reference is not necessary.</p> <p>5.3.1 - The parameter name still applies. No change made. It is standard practice to use the full name of a reference the first time it appears in the text. No change made.</p> <p>5.4 - Reference corrected in text.</p>
30	Anew	<p>Section 5.2 Page 11 - "Project activities that involve the expansion of existing capture capacity are only eligible where the baseline scenario is B2. The amount of CO2 that would have been captured, and stored or utilized in the absence of the project activity must be accounted for as non-VCS CO2 in each segment, according to the procedures outlined in the most recent version of VT0012."</p> <p>These sections / requirements seem to contradict one another. Section 5.2 appears to allow upgrades to the facilities to increase CO2 capture</p>	<p>Thank you for your feedback.</p> <p>The provision in Section 4 prevents projects from generating credit for energy efficiency improvements.</p> <p>Section 5.2 allows for facilities to add additional capture capacity and excludes the CO2 stream from the capture capacity that was present in the baseline from crediting.</p>

Section 5 – Procedures			
#	Organization	Comment	Verra's Response
		from the baseline while Section 4 does not allow for this. Could Verra clarify this and/or provide more details on specifically which cases are eligible and which are not?	
31	Anonymous 2	In the draft, fuel combustion from flaring or incineration of acid gas are excluded for conservativeness. What is the background and why?	<p>Thank you for your question.</p> <p>Under this module, the treatment of CO<sub>2</sub> (acid gas) is changed from flaring, venting, or incineration in the baseline to storage in the project.</p> <p>Crediting for the reduction in emissions from fuel use between the baseline and project is outside the scope of VM0049.</p> <p>Project proponents seeking credit for emissions avoidance from this source may apply a second methodology relevant to that activity, following Section 3.6.1 of the VCS Standard, v4.7.</p>

## Section 8 and General Feedback

Comments on Section 8 and General Feedback			
#	Organization	Comment	Verra's Response
32	CCS Brasil	CCS Brasil welcomes the development of Module M0367 under VM0049 as a timely and necessary step to expand the scope of the Verified Carbon Standard to industrial CO <sub>2</sub> capture activities. The module provides a clear framework for addressing emissions from existing natural gas processing plants, which are a significant and	Thank you for your feedback.

Comments on Section 8 and General Feedback			
#	Organization	Comment	Verra's Response
		<p>growing source of global greenhouse gas emissions.</p> <p>We particularly value:</p> <ul style="list-style-type: none"> <li>- The structured approach to baseline scenarios (B1–B3), which ensures methodological rigor.</li> <li>- The inclusion of fugitive methane emissions and upstream fuel-related leakage, which strengthens conservativeness.</li> <li>- The alignment with international tools and standards (e.g., CDM TOOL09, TOOL10, IPCC factors).</li> </ul> <p>At the same time, we encourage Verra to:</p> <ul style="list-style-type: none"> <li>- Provide additional clarity on monitoring requirements for CO<sub>2</sub> purity, fugitive emissions, and electricity-related leakage.</li> <li>- Ensure that governance safeguards are in place so that sponsored methodology development maintains full independence and transparency.</li> <li>- Consider regional contexts, especially in emerging economies, where data availability and grid conditions may differ from global assumptions.</li> </ul> <p>Overall, CCS Brasil supports the adoption of Module M0367 as an important milestone for scaling carbon capture and storage projects. We remain available to contribute technical expertise to strengthen the robustness, credibility, and applicability of this methodology worldwide.</p>	
33	CCS+ Initiative	6.2 parameter Heatcapture,y and Electricitycapture, y to be updated according to point 5.3.1	<p>Thank you for your feedback.</p> <p>The text has been revised.</p>
34	Anonymous 1	<p>With Recent 45Q Parity for EOR, Capital Competition Intensifies; VCM Must Preserve a Path for Pure CCS</p> <p>Capital now faces a like-for-like 45Q incentive between EOR and dedicated storage for point-source capture. Federal tax policy changes in July 2025 aligned 45Q values across end-uses for point-source</p>	<p>Thank you for your feedback.</p>

**Comments on Section 8 and General Feedback**

#	Organization	Comment	Verra's Response
		<p>capture, establishing parity at 85 USD per metric ton for EOR and dedicated storage, while keeping 180 USD per metric ton for DAC (KPMG, Incentives and credits tax provisions in "One Big Beautiful Bill Act", July 2025). That parity, combined with EOR's inherent commodity cash flow, tilts marginal investment decisions toward utilization unless storage-only projects can layer durable, high-integrity revenue from the voluntary market.</p> <p>Absent a credible VCM pathway for CO<sub>2</sub> captured at processing plants, sponsors will rationally prioritize EOR offtake, slowing deployment of pure CCS and undercutting net-emissions outcomes that ICVCM seeks to promote. The module should therefore maintain a clear, auditable route for future processing-plant CCS to earn credits when projects meet applicability and monitoring requirements; doing so complements 45Q and helps unlock diversified capital stacks for storage-only developments.</p>	