

# PROPOSED UPDATES TO THE VCS PROGRAM

13 July 2022

## 1 INTRODUCTION

As the Verified Carbon Standard (VCS) Program evolves, requirements are updated periodically to strengthen or expand the program's scope and ensure that projects deliver real, additional emission reductions and removals. We invite feedback from stakeholders to ensure that the changes we propose achieve their intended impact and do not have unintended consequences.

This document presents the following proposed updates to the VCS Program:

- Introduction of requirements for geologic carbon storage (GCS) activities, including associated tools and requirements (Section 2);
- Updates to the requirements for avoiding double-counting of carbon credits in Scope 3 emissions inventories (Section 3);
- Addition of a discount factor for crediting in cases of upstream displacement (Section 4); and
- Clarification of the long-term average GHG benefit calculation for afforestation, reforestation, and revegetation projects as well as improved forest management projects (Section 5).

Verra would update VCS Program documents to reflect these updates. All VCS Program documents referenced herein can be found on the Verra website at <https://verra.org/project/vcs-program/rules-and-requirements/>.

### 1.1 Consultation Process and Timeline

Verra has discussed the proposed updates with project proponents, investors, technical experts, validation/verification bodies and others. The planned timeline for implementing the consultation and rule approval process going forward is set out in Table 1 below.

Table 1. Tentative timeline

Tentative Date(s)	Activity
13 Jul – 11 Sep	Public consultation
21 Jul	Consultation webinar
12 Sep – 23 Nov	Review comments and finalize proposals
7 Dec	Publish VCS Program rule changes

Please provide comments on any part of this document. We would especially appreciate responses to questions in the ‘Requested Feedback’ sections. Comments may be submitted to [programupdates@verra.org](mailto:programupdates@verra.org) by 11 September 2022. After the consultation, we will use the input provided on these proposals to finalize the associated VCS rules and requirements.

We look forward to your feedback. Please let us know if you have any questions as you engage in this consultation.

## 2 GEOLOGIC CARBON STORAGE

### 2.1 Background

Verra has received substantial interest from project proponents and methodology developers to have geologic carbon storage (GCS) project activities recognized by the VCS. Broadly speaking, the term GCS may include carbon capture and storage (CCS), geologic carbon mineralization, carbon capture and utilization with CO<sub>2</sub> sequestration.

Verra is a participant as an independent observer to the [CCS+ Initiative](#). This initiative aims to unlock and scale-up CCS climate action. Verra staff are currently reviewing draft VCS methodology and module documents from the CCS+ Initiative.

Verra proposes amendments to the VCS Program to address the unique nature, risks, and timelines associated with GCS projects. The proposed update introduces GCS as a concept to the *VCS Standard*. In this update only CCS project activities are proposed for eligibility, recognizing that other GCS activity types may be added in the future.

### 2.2 Proposal

Verra proposes the following additions to the *VCS Standard* along with updates to the *VCS Methodology Requirements* document.

1. The **introduction of eligibility criteria for CCS projects** to help Verra manage risk by preventing or reducing the likelihood of negative environmental impacts from CCS projects, including reversals. These include:

- a. Requirements for regulatory oversight from competent jurisdictional regulators: CCS projects rely on proper well design and monitoring the injection and long-term integrity. Well design and injection monitoring and integrity have existing communities of practice and regulatory precedence. Verra proposes limiting projects to jurisdictions where suitable regulations exist to ensure high-integrity environmental outcomes. In such jurisdictions, regulators evaluate and approve a project's siting and reservoir characterization, reservoir model, monitoring program, and closure plans.
  - b. Appropriate site characterization and reservoir modeling: The selection of high-quality reservoirs and trapping mechanisms is key to the long-term success of CCS projects. Verra proposes that project proponents be required to demonstrate a thorough site assessment with on-site data collection, which would be used to develop reservoir models. These reservoir models would be intermittently updated through the injection and closure periods of the project and used to demonstrate containment and long-term stability before closure.
  - c. A robust and continuous monitoring program: Effective monitoring of CCS projects may involve monitoring outside the project facilities for sub-surface, surface, or atmospheric indications for reservoir containment, monitoring for lack of evidence of leaks, and monitoring after the crediting period has ended. Verra proposes new monitoring requirements for CCS projects to reflect these needs.
  - d. A rigorous closure plan: After injection ceases, effective plugging and abandoning injection and monitoring wells is an important milestone in ensuring the permanence of stored CO<sub>2</sub>. Verra proposes requirements for a closure plan that relies on a jurisdiction's requirements for closure of CCS sites, as well as over-arching closure requirements for no evidence of leaks, a trend toward conformance with modeled predictions, and a trend toward long-term stability.
2. The introduction of a **GCS Non-Permanence Risk Tool (NPRT) and associated GCS buffer account** to complement the eligibility requirements listed above. Using the GCS NPRT, project proponents would assess the reversals risks associated with GCS projects, which would determine the appropriate buffer withholding to ensure the permanence of credited emissions reductions and removals (in this respect, it would be similar to the *VCS Agriculture, Forestry and Other Land Use NPRT*).

Using an allocation amount determined by the GCS NPRT, GCS projects would contribute buffer credits to a buffer account at VCU issuance. All GCS projects' buffer credits would be held in a shared account (separate from the AFOLU or JNR buffers) that could be drawn on in case a loss event is incurred by any individual project. Verra would periodically assess risk and buffer withholding rates to ensure that any reversals from GCS projects could be covered by the shared buffer account and that the buffer system has long-term integrity.

Updates to the *Loss Event Report Template* would be introduced to reflect the inclusion of GCS projects. The *VCS Registration and Issuance Process* would describe the GCS buffer credit

return process and schedule. The proposed GCS NPRT would be used to assess the risks associated with CCS project activities. Other GCS activity types may be considered and added to the GCS NPRT in the future. Risks assessed for CCS projects in the proposed first version of the NPRT would include:

- a. **Regulatory Framework Risk:** assesses if and how the government of a project's jurisdiction regulates the project activity and manages long-term liability associated with CCS projects.
- b. **Political Risk:** assesses the Governance Scores according to the Work Bank Governance Indicators.<sup>1</sup>
- c. **Land and Resource Tenure Risk:** assesses the demonstrability and clarity in a project's jurisdiction regarding ownership of pore space, mineral rights, and land.
- d. **Closure Financial Risk:** assesses a project proponent's financial capability to close the site according to the budget they have prepared and are equipped to fund as part of their closure plan.
- e. **Design Risk:** assesses the design of the wells, reservoir characteristics, and the number of existing penetrations through the storage complex and seals.

The introduction of new crediting periods for GCS projects, in acknowledgment of the high up-front capital cost and lack of long-term revenue streams combine with non-permanence risk that requires long-term management. Verra seeks input on the appropriate length of the crediting period for such activities.

3. The introduction of **requirements for projects that expand through GCS hubs to enable climate action through a shared infrastructure model** that Verra sees as important to the GCS ecosystem, while maintaining high credibility accounting. Verra anticipates expansion of GCS projects through the addition of new capture, transport facilities and/or storage sites to existing projects. These expansions would have different baselines, additionality assessments and may not be known to the project proponents upon the original project's initiation. Such expansions are not new project instances since they do not have the full value chain of capture, transport, and storage. The proposed requirements include:
  - a. Eligibility conditions and limitations on what types of activities an expansion of projects can include, and,
  - b. Additionality and baseline assessment requirements for the project expansion.
4. The addition of **specific requirements for GCS projects to demonstrate the right to GHG emission reductions/removals**, specifically:
  - a. The legal title to pore space or pore space lease(s),
  - b. The license or permit issued from a competent regulatory or governing authority,
  - c. Documents demonstrating sufficient access to surface facilities for injection and monitoring; and,

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<sup>1</sup> Worldwide Governance Indicator – Interactive Data, <http://info.worldbank.org/governance/wgi>.

- d. A legal opinion from an independent third-party lawyer licensed to practice within the jurisdiction of the GCS project that endorses the validity of pore space lease(s), legal title to mineral rights, and that surface access rights has been granted by the person(s) with the relevant ownership rights.
5. The addition of **requirements for GCS projects to delineate their geographic location**. Given that they might span large distances from capture, through transportation in pipeline networks to storage sites, and because the storage reservoirs may extend across large spaces that are not visible on the surface.

The proposed updates are incorporated in track changes in draft versions of the following documents:

1. GCS updates to the VCS Standard, v4.3, and
2. GCS Non-permanence Risk Tool.

## 2.3 Requested Feedback

Verra requests feedback on the following:

1. The current proposal limits project activities to jurisdictions where suitable regulations exist to decrease project risks, which may limit project locations to advanced economies. What concerns are there with this approach, and what alternatives might you suggest that could open broader jurisdictional participation?
2. Do you agree with the NPRT approach and risk categories? What suggestions do you have to improve the risk categories?
3. What is an appropriate total crediting period for GCS projects, and why? The VCS rule for technological and industrial (non-AFOLU) projects is seven years, twice renewable for a total of 21 years. What is an appropriate number of crediting period renewals for GCS projects?
4. What suggestions do you have to improve the requirements allowing expansion of GCS projects?
5. Do you support the approach to demonstrate ownership and mineral rights for GCS projects? To what extent do you think a legal opinion can address uncertainty around ownership and mineral rights to a project's GHG emission reductions and removals? Do you have any suggested additions or improvements?

## 3 DOUBLE-COUNTING OF CARBON CREDITS IN SCOPE 3 INVENTORIES

### 3.1 Background

Verra has received significant stakeholder interest in developing a Scope 3 Program to address gaps in existing standards, guidance, and assurance frameworks for Scope 3 emissions intervention accounting. In response, Verra is running a Scope 3 Initiative to collect stakeholder input on the key gaps and barriers that Verra may be able to address in its role as a standards body.

From the outset of the Initiative, it has been clear that there is a significant double-counting risk in instances where an emission reduction or removal is both sold as a carbon credit and claimed in a company's Scope 3 emissions inventory towards a GHG target. Through stakeholder engagement, we have seen evidence of this type of double-counting occurring between carbon credits in the voluntary carbon market and Scope 3 emissions claims. Further, we anticipate that this risk will grow as more companies report their Scope 3 emissions and track progress towards achieving their abatement targets. Therefore, specific guidance and enhanced assurance are needed to mitigate this risk in the VCS Program.

Double-counting emission reductions or removals as VCUs and in corporate inventory claims challenges the principles of uniqueness, additionality, and transparency in the VCS Program. To address this issue, Verra proposes updating the VCS Program to define this double-counting risk clearly and ensure that VCUs maintain their integrity.

### 3.2 Proposal

Verra proposes the following updates to VCS Program documents:

#### *VCS Standard*

##### 3.20 Participation under Other GHG Programs

###### Concept

Projects may be registered under both the VCS Program and another GHG program (which may be an approved GHG program such as CDM, JI or the Climate Action Reserve, or any other GHG program). The term *GHG program* covers carbon crediting programs, as defined further in the VCS Program document *Program Definitions*. Further requirements relating to potential overlap of projects with other programs and mechanisms such as emission trading programs, [company Scope 3 emissions inventory claims](#), and the Paris Agreement are set out in Section 3.21 below.

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##### 3.21 Other Forms of Credit

###### Concept

In order to maintain environmental integrity, GHG emission reductions/removals that are issued as VCUs cannot be issued as GHG allowances or other types of GHG credits under an emissions trading program, or as other forms of environmental credit such as renewable energy certificates or [company Scope 3 emissions inventory claims](#).

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#### [Company Scope 3 Emissions Accounting](#)

3.21.3 Where VCUs represent a GHG reduction or removal in a supply chain, the project proponent shall not promote or facilitate the double-counting of that same GHG reduction or removal in a company Scope 3 emissions inventory. Further, the project proponent shall notify the buyer(s) of impacted goods or services that GHG reductions or removals sold as VCUs cannot be claimed in companies' Scope 3 emissions inventories. This shall be demonstrated by documenting one or more of the following:

- 1) Websites, contracts or marketing materials stating that the GHG reductions or removals associated with the impacted good or service have been sold as VCUs and cannot be used towards a company Scope 3 emissions inventory claim.
- 2) Sustainability reports (e.g., Climate Disclosure Project Reports) of companies with direct supply chain links to the VCS project showing that the GHG reductions or removals sold as VCUs and associated with the impacted goods or services have not been claimed in any company's Scope 3 emissions inventory.

### ***Program Definitions***

#### **Double Counting**

The scenario under which a singular GHG emission reduction or removal is monetized separately by two different entities or where a GHG emission reduction or removal is sold to multiple buyers *or is claimed as both a VCU and in a company Scope 3 emissions inventory claim.*

### **Registration Representation Documents**

The following clause would be edited as follows in the registration representations for both single and multiple project proponents (PP), but the single PP version is shown as the example:

- 2.2.4 No person will submit, seek, *promote, market,* request or receive any recognition of, or legal rights in respect of, the Reductions generated by the Project during the Verification Period and for which VCU issuance will be requested, as another form of GHG-related environmental credit (including without limitation as renewable energy certificates *or claimed in a company Scope 3 emissions inventory*), or I will provide evidence to the Verra Registry in accordance with the VCS Program Rules that any such credits have not been used and have been cancelled under the relevant environmental credit program.

### **Issuance Representation Documents**

The following clause would be edited as follows in the registration representations for both single and multiple project proponents (PPs), but the single PP version is shown as the example:

- 2.2.4 The Issuance Representors have not submitted, sought, *promoted, marketed,* requested or received any recognition of the Reductions generated by the Project during the Verification Period and for which the Issuance Representors are requesting

VCU issuance from any GHG Program other than under the VCS Program or as any other form of GHG- or renewable energy-related environmental credit (including without limitation as renewable energy certificates or claimed in a company Scope 3 emissions inventory), or the Issuance Representatives have provided evidence to the Verra Registry in accordance with the VCS Program Rules that any such credits have not been used and have been cancelled under the relevant environmental credit program.

### 3.3 Requested Feedback

Verra requests feedback on the following:

1. Do the proposed changes to the *VCS Standard*, *Program Definitions* and Registration and Issuance Representation documents sufficiently help mitigate the risk of VCUs being double counted as company Scope 3 emissions inventory claims (considering the limitations of project proponents and validation and verification bodies to detect this form of double counting)? If not, is there a better or additional approach for effectively mitigating this risk?
2. Are there other ways that non-occurrence of double-counting could be demonstrated beyond the approaches listed in Section 3.21.3? If so, please explain.

## 4 GUIDELINES ON CREDITING UPSTREAM DISPLACEMENT

### 4.1 Background

Upstream displacement occurs when there is a reduction in primary production divided by an increase in secondary production<sup>2</sup>. Currently, the VCS Program offers no guidance on unequal displacement between a primary activity, product, or service and a secondary activity, product, or service.

It is often assumed that displacement occurs on a 1:1 basis (e.g., 1 kilogram of secondary production reduces primary production by 1 kilogram). However, displacement is governed by complex market forces, and due to effects like incongruent supply chain responses and rebound, displacement is often less than 1. For example, carbon finance may enable the development and sale of a new low-emissions product, which is expected to replace a higher-emissions alternative. But due to behavioral or financial lock-in, or other market “stickiness”, the volume of new sales may not displace an equivalent volume of higher-emissions production. A discount factor can account for this discrepancy while still allowing an intervention with a net positive atmospheric benefit.

### 4.2 Proposal

Verra proposes implementing new guidelines to account for displacement that is less than 1 through the following additions to the *VCS Methodology Requirements*:

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<sup>2</sup> Zink, Trevor & Geyer, Roland & Startz, Richard. (2017). Toward Estimating Displaced Primary Production from Recycling: A Case Study of U.S. Aluminum. *Journal of Industrial Ecology*. 22. 10.1111/jiec.12557.

### 3.3 Project Boundary

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- 3.3.4 When a methodology seeks to credit GHG emission reductions or removals from product substitution, fuel switching, decreased demand for a given activity, product, or service, or other forms of displacement occurring upstream from a project intervention, the project boundary shall include all relevant upstream GHG sources, sinks, and reservoirs.

### 3.8 Quantification of GHG Emission Reductions and Removals

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- 3.8.3 When a methodology includes GHG emission reductions or removals generated from product substitution, fuel switching, decreased demand for a given activity, product, or service, or other forms of displacement occurring upstream of a project intervention, credible evidence must be provided to demonstrate that displacement is 1:1 to avoid needing to apply a discount factor. Examples of evidence may include peer-reviewed literature, government records, production facility records, survey data, or reports compiled by industry associations.

Where displacement is less than 1, a discount factor shall be applied (e.g., to the baseline emissions or the net GHG emission reductions or removals) with the following evidence provided:

- 1) An analysis of at least three peer-reviewed publications in reputable journals that are listed in the Scientific Citation Index; or
- 2) A market analysis of supply and demand elasticities associated with the considered activity, product, or service.

### 3.9 Monitoring

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- 3.9.5 When a methodology seeks to credit GHG emission reductions or removals from product substitution, fuel switching, decreased demand for a given activity, product, or service, or other forms of displacement occurring upstream from an intervention, monitoring shall occur at the relevant upstream GHG sources, sinks, and reservoirs. In cases where the upstream sites cannot be specifically identified, e.g., in a co-mingled supply shed, a discount factor shall be used to account for displacement that is less than 1 (see Section 3.8.3).

### 4.3 Requested Feedback

Verra requests feedback on the following:

1. Do you agree with the proposed use of a discount factor to account for displacement that is less than 1 in methodologies that seek to credit displacement occurring upstream of a project intervention? Do you have any suggested improvements or additions?
2. Are there additional types of credible and robust evidence that could support the determination of a discount factor?
3. Are there other ways that a discount factor might be applied beyond the examples given in the proposed new Section 3.8.3 of the *VCS Methodology Requirements* (e.g., to the baseline emissions or the net GHG emission reductions or removals)? If so, please describe these other applications.

## 5 LONG-TERM AVERAGE

### 5.1 Background

Currently, the *VCS Standard* requires afforestation, reforestation and revegetation (ARR) and improved forest management (IFM) projects that harvest or plan to harvest to cap credits issued at the long-term average (LTA) of the GHG benefit maintained by the project. The intent of this requirement is to prevent over-crediting. Without an LTA, projects with harvesting would be incentivized to issue credits and then immediately harvest, likely resulting in a reversal. The LTA accounts for the cyclic nature of harvesting, where GHG benefits go up and down, and credits for the mean GHG benefits of harvested forests.

Project developers have given Verra feedback that this cap may be too restrictive in cases where forest management activities are necessary to improve forest health.

Verra is considering updates to the *VCS Standard, v.4.2* and *Program Definitions, v4.2* to specify when the LTA is applied. In addition, in the future Verra will be updating the VCS Program document *AFOLU Guidance: Example for Calculating the Long-Term Average Carbon Stock for ARR Projects with Harvesting* guidance document, and is requesting input to help us clarify when the LTA applies and to standardize LTA calculations.

### 5.2 Proposal

To clarify when the LTA is applied, Verra proposes the following revisions to the *VCS Standard, v4.2*:

- 3.2.10 Projects with tree harvesting shall demonstrate that the permanence of their carbon stock is maintained and shall put in place management systems to ensure the carbon against which VCUs are issued is not lost during a final cut with no subsequent replanting or regeneration. **Post-harvest replanting harvest shall be included in a government- or professional forester-approved forest management plan.**

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3.2.21 Where ARR or IFM projects include harvesting activities or commercial species (with the exception of those noted in Section 3.2.23 below), the loss of carbon due to harvesting shall be included in the quantification of project emissions....The long-term average GHG benefit shall be calculated using the following procedure:

1) Establish the period over which the long-term average GHG benefit shall be calculated, noting the following:

....

7) The stratification of the sample plots shall be proportionally representative of areas with and without harvesting activity. Projects with harvesting activities shall calculate the long-term average over the entire project area, except when areas excluded from harvesting activities have been delineated and stratified in the forest management plan at the start of the project.

3.2.22 Where ARR and IFM projects that do not plan harvesting activities but generate reduction in carbon stocks of aboveground tree biomass that meets or exceeds the harvesting activities threshold, the long-term average shall be applied.

3.2.23 Projects using commercial species may issue GHG credits above the long-term average GHG benefit maintained by the project when a project proponent can demonstrate both of the following:

1) At the start of the project, a government- or professional forester-approved forest management plan that justifies the use of non-native commercial instead of native species and an attestation that harvesting activity is not planned or expected for the project.

2) At any time, no more than 50% of the project area is planted in non-native commercial species.

3.8.5 For ARR or IFM extension of rotation age or low-productive to high-productive projects with harvesting, the length of the project crediting period shall be set to 100 years include at least one complete harvest/cutting cycle. In the case of selectively cut IFM projects, where trees are individually selected for harvest, the harvest/cutting cycle is the allowable re-entry period into the harvest area as determined by legal and regulatory requirements, and/or common practice.

To correspond with the updates to the *Standard*, we propose to add the following definitions of 'commercial species' and 'harvesting activity' to the *Program Definitions, v4.2*:

**Commercial species**

A tree species included in Mark, J. et al. (2014)<sup>3</sup> (and any updates)

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<sup>3</sup> Mark, J., Newton, A., Oldfield, S., & Rivers, M. (2014). A Working List of Commercial Timber Tree Species.

**Harvesting activities**

The harvest of trees, vegetation or other biomass which results in a reduction of carbon stocks by more than 20% over a five-year period

**5.3 Requested Feedback**

Verra requests feedback on the following:

1. Is a 20% reduction in carbon stocks over a five-year period adequate to allow for forest management activities intended to improve forest health? If not, what is a globally applicable and adequately conservative level of carbon stock reductions? Is five years an appropriate time interval over which changes in carbon stocks should be tracked?
2. Projects that are managing or planting commercial species would be required to use the LTA unless they can demonstrate a need for using non-native commercial species when harvesting activities are not project plans.
  - a. What additional scientific, peer-reviewed publications, databases or international reports should be included as source material for defining commercial species?
  - b. Is (1) requiring a forest management plan and (2) limiting non-native commercial species to less than 50% of the project area sufficient to encourage the planting and management of native forests for projects that do not have to apply the LTA? Should the proponent have to provide additional proof or assurances if they are planting or managing forests with commercial species?
  - c. Alternatively, are requirements (1) and (2) above too restrictive? What would be an acceptable alternative?
3. Would extending the crediting period to 100 years for projects with plans to harvest incentivize compliance with requirements to replant after harvest? What could some of the unintended consequences be? What would be an acceptable alternative?
4. What other changes can be made to help clarify when the LTA applies?
5. Please provide any suggestions for how to standardize the LTA calculations.