

REQUEST FOR PROPOSALS

MAJOR REVISION OF VM0044 METHODOLOGY FOR BIOCHAR UTILIZATION IN SOIL AND NON-SOIL APPLICATIONS

December 15, 2023

INTRODUCTION

Verra is a global leader helping to tackle the world’s most intractable environmental and social challenges. As a mission-driven nonprofit organization, Verra is committed to helping reduce greenhouse gas (GHG) emissions, improve livelihoods, and protect natural resources across the private and public sectors. We support climate action and sustainable development with standards programs and tools that credibly, transparently, and robustly assess environmental and social impacts and that also enable funding for sustaining and scaling up projects that verifiably deliver these benefits. We work in any arena where we see a need for clear standards, a role for market-based mechanisms, and an opportunity to generate significant environmental and social value.

1 PROJECT BACKGROUND AND OBJECTIVE

Verra seeks a consultant (or group of consultants) to work with Verra to update and improve [VM0044 Methodology for Biochar Utilization in Soil and Non-Soil Applications, v1.1](#). Verra will fund and manage the development and assessment of the work. Verra has identified a set of changes to be made (listed in Section 2: Scope of Work) and will work with the consultant to identify any additional changes that could strengthen the methodology.

Biochar is a carbon-rich solid material created from biomass subjected to high heat and limited-oxygen environments. Due to biochar’s organic carbon component being one to two orders of magnitude more stable than the original material it was produced from (i.e., the feedstock), a substantial portion of biochar’s organic carbon persists for decades to millennia without being mineralized into inorganic carbon. Because of this characteristic, research has identified biochar’s potential to remove at least 6% of total annual GHG emissions globally.¹

¹ David Lefebvre et al., “Biomass Residue to Carbon Dioxide Removal: Quantifying the Global Impact of Biochar,” *Biochar* 5 (October 2023): 1–17, <https://doi.org/10.1007/s42773-023-00258-2>.

In addition to its potential role in climate change mitigation, biochar offers a range of well-studied soil fertility benefits and the potential to rehabilitate soils contaminated by toxic mine tailings or stormwater run-off. Finally, the biochar thermochemical conversion process involves the generation of heat energy, which can help offset existing energy needs and reduce GHG emissions and pollution if captured and utilized.

Due to biochar’s compelling climate, agronomic, and environmental benefits, Verra, together with Forliance, South Pole, Delaney Forestry Services, and Biochar Works, developed and published the first version of the *Methodology for Biochar Utilization in Soil and Non-Soil Applications* under Verra’s flagship Voluntary Carbon Standard (VCS) Program in August 2022.² Clarifications and corrections were published in version 1.1 of the methodology in July 2023. Verra now seeks to continue updating and strengthening this methodology in version 2.0 by incorporating improvements identified via a public consultation held from July 10 to August 9, 2023, and through personal interviews between Verra’s staff and biochar global stakeholders.

2 SCOPE OF WORK

For version 2.0 of VM0044, the consultant will lead on researching and writing revisions for specific elements of VM0044 described in Section 2.1 below. The consultant will work closely with the Verra team throughout the process to iterate on and finalize the revision. The consultant’s responsibilities are as follows:

2.1 Create a Work Plan for Methodology Revisions

The consultant shall create a work plan describing how they will draft revisions including scientific rationale (e.g., external information sources, expert input, scientific reports) for the following methodology elements:

- A. Biochar production facilities
 - Develop new applicability conditions, GHG accounting procedures, and/or associated rules to allow for eligibility of existing biochar production facilities through expansion and/or retrofitting. Relevant methodology sections to be revised include 4: *Applicability Conditions* and 8: *Quantification of GHG Emission Reductions and Removals*.
- B. Requirement for high-technology facilities
 - Develop new simplified, or identify alternative published, procedures for demonstrating 70% energy utilization of high-technology facilities that

² The VCS Program is the world’s largest carbon crediting program and accounts for about two-thirds of all voluntary carbon market transaction volume (see “State and Trends of Carbon Pricing 2020”).

complement the Clean Development Mechanism's (CDM) Tool 9. Relevant methodology sections to be revised include 3: *Definitions* and 9: *Monitoring*.

- Develop new GHG accounting procedures and/or associated rules to account for emissions from construction of biochar production facilities (i.e., embodied emissions). Relevant methodology sections to be revised include 8: *Quantification of GHG Emission Reductions and Removals* and 9: *Monitoring*.

C. Feedstocks

- Develop new applicability conditions, GHG accounting procedures, and/or associated rules to allow for use of invasive species as biomass feedstocks. Relevant methodology sections to be revised include 4: *Applicability Conditions, item 4*.
- Develop new procedures to allow for eligibility of new sources of biomass feedstocks (not purpose-grown) that do not yet have a demonstrated baseline end-use. Relevant methodology sections to be revised include 4: *Applicability Conditions, item 4(b)* and *Appendix 2*.

D. Parameters

- Develop a credible monitoring approach for measuring H:Corg ratio of biochar, especially for distributed low-technology production facilities, that balances rigor with feasibility. Relevant methodology sections to be revised include 9: *Monitoring*.
- Develop a credible monitoring approach for measuring moisture content of biochar, especially for distributed low-technology production facilities, that balances rigor with feasibility. Relevant methodology sections to be revised include 9: *Monitoring, $M_{t,k,p,y}$ parameter table*.

E. Biochar transportation and storage

- Develop new simplified, or identify alternative published, procedures for calculating feedstock transport emissions that complement CDM Tool 12. Relevant methodology sections to be revised include 4: *Applicability Conditions, item 6*.
- Revise procedures for determining feedstock modes of transport and feedstock transport distance thresholds for GHG accounting. Relevant methodology sections to be revised include 4: *Applicability Conditions, item 6* and 8.3: *Leakage*.
- Develop new applicability conditions and/or guidance for safe storage and transport of biochar. Relevant methodology sections to be revised include 4: *Applicability Conditions, End-use application criteria*.

- Develop new monitoring procedures for biochar mixed with other substrates for end use applications that balances rigor with feasibility. Relevant methodology sections to be revised include 9: *Monitoring*, 9.3: *Application Type*.

F. Other revisions

- Other minor revisions identified by the Verra team complement the main ones described above. The Verra team will share a list of these with the selected consultant. The Verra team will also directly draft some revisions with input from the consultant.
- In addition, applicants are invited to propose with justification any additional updates not listed above that they consider important to include in version 2.0. Verra will evaluate these when reviewing proposals and will work with the selected consultant to determine if and how to include them.

2.2 VCS Methodology Development

A. Prepare and submit a full draft of *VM0044, v.2.0*

Following step 2.1 and considering Verra feedback, the consultant will develop and submit a full methodology revision of red-lined track changes using *VM0044, v1.1*. The consultant must iterate with Verra throughout this step to refine the approach prior to formal submission. This includes sharing drafts of the VCS methodology and checking in with Verra on a regular basis.

B. Review and respond to public comments and produce an updated draft of *VM0044, v.2.0*

Verra will coordinate a 30-day public consultation on the proposed VCS methodology. The consultant(s) shall respond to each issue raised during the consultation period. They should use the input obtained from the public and expert consultations, as well as comments received from Verra, to produce an updated draft of *VM0044, v2.0*.

C. Manage the progression of *VM0044, v2.0* through a validation/verification body (VVB) assessment

Verra will select and contract an independent VVB who will review the proposed *VM0044, v2.0* and produce an assessment report with findings. The consultant will produce a revised version of the VCS methodology addressing all the findings in the assessment report. The VVB will review this version to ensure that the modifications made have not produced any non-conformances with the VCS rules. The consultant should revise the VCS methodology to address any further issues found by the VVB (limited to three rounds of revisions) and produce a final version for Verra review.

D. Review and respond to Verra internal review

Following the VVB assessment, VM0044, v2.0 will undergo final Verra review. The consultant(s) will produce a revised version of the methodology addressing all the findings and iterate with Verra to produce a final version for publication in the VCS Program.

E. Present the approved methodology in a public webinar

After approval and publication of VM0044, v2.0, the consultant will co-present the key elements of the updated methodology in a public webinar hosted by Verra.

3 DELIVERABLES

The main deliverables resulting from this assignment are as follows:

#	Deliverable	Description	Due Date
1	Revision work plan	A work plan describing how each of the required revisions will be addressed with accompanying documentation (e.g., comparative spreadsheet)	One month from the start date
2	First draft of VM0044, v2.0	A first full draft of VM0044, v2.0 using the VCS Methodology Template, v4.3 to be posted for public consultation	Three months from the start date
3	Second draft of VM0044, v2.0: Incorporation of public consultation comments	An updated methodology draft based on public comments received as well as a description of how public comments were addressed	Six months from the start date
4	Third draft of VM0044, v2.0: Incorporation of VVB assessment findings	An improved draft of the VCS methodology addressing all VVB assessment findings	Eight months from the start date
5	Final draft of VM0044, v2.0: Incorporation of final Verra review findings	The final version of VM0044, v2.0, with responses to all comments and feedback received during the final Verra staff review	Ten months from the start date
6	Public webinar	Co-present key updates in VM0044, v2.0 in a public webinar hosted by Verra	Eleven months from the start date

4 CRITERIA FOR EVALUATION

Verra will use the following criteria for evaluating proposals:

- Experience developing GHG accounting methodologies or voluntary carbon projects
- Applied experience with VM0044, v1.0 or other biochar GHG crediting methodologies in other GHG crediting programs
- Applied experience with biochar production and use, including in agricultural and non-agricultural settings
- Scientific understanding of biochar life cycle and GHG accounting associated with different feedstocks, production processes, and end uses
- Understanding of the challenges associated with biochar production and commercialization
- Degree of innovative thinking in respect of coming up with new solutions
- Cost, including making sure that the proposed level of effort is consistent with the outcomes
- Examples of having successfully used the proposed approach on prior work
- Familiarity with the VCS Program, including the following documents: [VCS Standard, v4.5](#), [VCS Methodology Development and Review Process, v4.2](#), and [VCS Methodology Requirements, v4.4](#)

To meet these diverse skills and qualifications, Verra encourages proposals that include multiple entities (i.e., from a team comprised of two or more consultants).

5 RESPONSES TO THE RFP

Proposals should not exceed four pages and should include the following:

- High-level technical proposal for the scope of work and deliverables, including a work plan
- Cost proposal/budget not to exceed USD 50,000 including total estimated costs based on a daily or hourly rate;³ include rationale for main budget items
- Description of how the consultant would avoid any potential conflict of interest in undertaking the described scope of work

³ This does not include the cost of VVB review, which Verra will pay for separately.

- Description of the consultant's qualifications to undertake the described scope of work, including, if possible, examples of similar projects the proponent has worked on or clients worked for and outcomes achieved
- Optional description of any innovations / added value propositions that they feel would enhance the scope of work requirements

Resumes/CVs of the consultant's team, if applicable, may be attached (not to exceed two pages each).

All proposals and documents submitted to Verra will be kept confidential.

All documents must be submitted to Karina Bautista, Senior Program Officer, Nature-based Innovation, at kbautista@verra.org by close of business Friday, January 26, 2024. The top candidates will be asked clarifying questions and/or invited for a deeper discussion about their proposal. Verra aims to finalize the selection of the consultant by Friday, February 16, 2024, with the work to begin as soon as possible after then.

Legal Nature of RFP

This RFP is an invitation for proposals and Verra is under no legal obligation to accept any proposal nor proceed with the RFP. Verra reserves the right to amend the requirements at any time.