



Request For Proposals by ESMC/ESMRC: Monitoring, Reporting, and Verification (MRV) Platform Development

Ecosystem Services Market Consortium (ESMC) and Ecosystem Services Market Research Consortium (ESMRC). *Ecosystem Markets. Built for Producers. Backed by Science.*

ABOUT ESMC

Ecosystem Services Market Consortium LLC (ESMC) is a non-profit, member-based organization launching a national scale ecosystem services market program to recognize and reward farmers and ranchers for their environmental services to society.

ESMC and its research arm the Ecosystem Services Market Research Consortium (ESMRC) is a public private partnership of partners and collaborators across the agricultural supply chain and value chain investing in critical R&D to build a technologically advanced market program and infrastructure that is cost-effective and scalable. The program and infrastructure are intended to maximize participation opportunities for farmers and ranchers in ecosystem service markets that are science-based and standards-based and meet demand side requirements, since both are necessary for a thriving market program.

ESMC's scientifically rigorous approach meets corporate, stakeholder and societal needs by quantifying, monitoring, and verifying the environmental impacts of sustainable agricultural sector outcomes annually and on an ongoing basis.

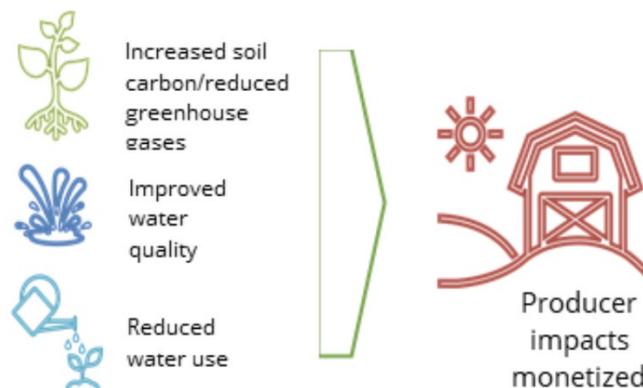
ESMC is launching a voluntary national ecosystem services market in 2022 that issues and sells ecosystem services credits including increased soil carbon and reduced GHG credits, water quality and quantity credits, and biodiversity credits from US agricultural producers.



BACKGROUND INFORMATION

ESMC’s Market Program design is unique in that we operate in more than one market and generate multiple “stacked” credits in one program. The same land stewardship practices that improve soil carbon and reduce GHG emissions often have additional benefits, including improved water quality and water conservation, and biodiversity benefits such as habitat for pollinators, insects, and birds. Our market program rewards farmers and ranchers for these benefits demanded by society. Our program meets the needs of corporates for “scope 1” carbon offset credits, compliance grade water quality credits desired by policymakers and municipalities, as well as corporate “scope 3” supply chain reporting requirements for increased soil carbon, reduced GHGs, water quality and water quantity.

One protocol generates stacked credits and assets.



Each producer’s carbon, GHG, water quality and water quantity outcomes are quantified at a field scale and the credits generated can be stacked and sold or disaggregated and sold in our streamlined program. ESMC is committed to maximizing the value returned to producers while meeting multiple market needs of diverse buyers.



ESMC/ESMRC MRV Platform Progress to date

ESMC/ESMRC contracted with Heartland Science and Technology Group in early 2020 to develop a basic platform (MRV v1) to enroll 2020 producers and capture and manage producer data. MRV v1 has served as an interim technology solution while more detailed specifications were being developed for the next generation of the MRV platform (MRV v2). As the ESMC Program has developed and pilots implemented to test all aspects, the specifications for an advanced MRV Platform have become more refined and documented.

The redesign of MRV v1 has begun and some components are being built as MRV v2 to accommodate the next round of producer enrollment that is currently underway for 2021 pilots and will soon be underway for 2022 pilots.

ESMC/ESMRC is seeking proposals to build out our market ready MRV platform, MRV (v3), to continue with 2021 and 2022 pilot enrollment and processing and to prepare for the late 2022 Market Program Launch. ESMC envisions this work merging into existing work as possible, and the MRV v3 build as a collaborative transition using the work to date as a basis for the platform design and requirements. We seek proposals for this collaborative effort and have developed key Program milestones as a guide for platform development phases and timelines, including a timeline to shift current producer accounts into to the new platform.

PROJECT GOALS

- Iteratively build ESMC’s MRV Platform for data collection, processing, verification tracking, and required reporting for credit generation / issuance starting with an initial

version by the end of 2021 and a full MRV platform to support ESMC's formal program launch by September of 2022.

- Long term contract for MRV platform use and maintenance (minimum 2-year contract requested).

SCOPE OF WORK

The full *MRV Product Requirements Document* can be shared under NDA upon request. Below is a summary of the scope of work. Proposals should include an estimate of required roles and staffing for project delivery, to include a description of the proposed process, meeting cadence, and collaboration approach with ESMC/ESMRC's team to achieve stated goals.

ESMC/ESMRC seeks to quantify the impact of changes in agriculture management systems and create sellable assets that provide financial incentives to producers to change management systems and that assure buyers of credit integrity and program credibility.

Three key challenges in this endeavor:

1. The impact of changes in agriculture management systems is difficult to forecast and can be costly to quantify and verify.
2. For the removal and storage of carbon in cropland soils, it is difficult to monitor practices to ensure that changes are maintained and their benefits are long lasting.
3. Many programs aimed at incentivizing environmental services require too much effort for the resulting rewards making them not worth the effort.

ESMC/ESMRC's programmatic investments in infrastructure, including the MRV platform, are key to address these challenges with our members and partners.

The MRV platform activities can be divided into three areas:

1. **Inputs:** Submission and collection of required data and documents.

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2. **Loops:** Use of data inputs to qualify, quantify, verify, and monitor the impacts of changes in agriculture system management, typically with partners or platforms outside the MRV via various APIs.
 3. **Outputs:** Creation of assets, reports, and necessary outcomes required to generate credits, the sale of which pays producers for the impacts of changes in their agriculture management systems.

The MRV consists of:

- **Web app** – the user-facing product used by Producers, Advisors, Verifiers, Project Administrators, and ESMC Staff to enroll, quantify, verify, issue, and sell/buy credits for environmental services. It includes integrations with several external services to process data (the Loops).
- **API** – allow other Farm Management Systems (FMSs) to send management data to ESMC on behalf of Producers.
- **Knowledge base** – training material, support material, documentation, etc.

STAGES OF WORK & TIMELINE

The detailed *MRV Milestones and Roadmap* can be shared under NDA upon request. Below is a summary of the milestones:

Q4 2021

- Work begins October 1, 2021.
- By end of quarter, an initial version of the MRV platform should be launched supporting Producer, Advisor, and Administrator accounts, Producer enrollment, and Field import and eligibility checks for both cropland and grazing land production systems.

Q1 2022

- Transition projects and accounts from current MRV to new MRV platform.
- Support the entry and/or import of farm management and integrated grazing data and from required FMS platforms (Farm Management Systems) and third-party service platforms.
- Launch ESMC API (Application Program Interface) for FMS platforms seeking to integrate with ESMC's MRV platform.
- Create status dashboards for all accounts / scopes (one Producer vs collection of Producers).
- Start integration with quantification models: generate export files and reports for model testing and data gap analysis.
- Start work on verification: ability to share needed data with Verifier account for verification.
- Data gap filling from approved sources and methods. This workstream is underway and will be completed in collaboration with ESMC/ESMRC and collaborators.
- Finalize requirements for non-integrated grazing, fuel & energy usage data, and verification.

Q2 2022

- Finish integration with quantification models DNDC (DeNitrification DeComposition) and APEX (Agricultural Policy Environmental Extender).
- Ability to collect all required energy & fuel usage information.
- Ability to collect all required data for grazing.
- Asset calculation by year, by crop, including holdback percentages/reductions
- Finish support for verification process and Verifier accounts.

Q3 2022

- Generation of asset/credit reporting certificates, including uncertainty, supply shed, watershed.
- Ability to facilitate the sale of generated assets / credits on MRV or via external registries (varies by asset type).
- Test & prepare for market launch at end of Q3.

BUDGET

Applicants should include an itemized and a total budget as part of the proposal. The budget should be broken down by Work Stages, should include additional line items as appropriate, and should specify whether items are fixed-cost expenses or time-and-expense items. A budget narrative should accompany the itemized budget to describe how the budget covers each of the Work Stages 1 – 3 and any additional costs associated with the proposal and the proposed budget.

ESMC appreciates that some elements or Work Stages are less definitive and thus may be difficult to budget. ESMC expects applicants to use their best judgement and best offers and to describe how they will approach the work overall, how they will approach and carry out each Work Stage and expound as appropriate on overall budgeting and budgeting for individual elements and work stages.

STATEMENT OF QUALIFICATIONS

Applicants should include in the proposal a statement of organizational and staff or partner qualifications to develop the Protocol, to include:

- Past and current activity and understanding of voluntary and/or compliance carbon offset markets, ecosystem service markets, water quality and nutrient trading markets,



or related markets and protocols for these markets; and efforts to meet corporate supply chain reporting requirements, including Sustainable Development Goals (SDG) 2030, through quantified and verified processes.

- Experience working with agricultural sector and agricultural working lands and familiarity with the agricultural sector sustainability efforts in general.
- Relevant qualifications and experience of staff and staffing capacity that will lead the MRV platform development process.

ESMC encourages applicants to develop and describe innovative, collaborative, team-based approaches to achieve the work, and to describe how the needs of the Client as described in the RFP (Request for Proposal) can best be achieved, including how past and current challenges scaling agricultural and land-based ecosystem services can be overcome.

Consultant should identify in the proposal a designated Point of Contact (POC) and phone and email coordinates where the POC can be reached.

PROPOSAL SUBMISSION PROCESS

The submission deadline for receipt of proposals by ESMC/ESMRC is 5:00 pm US EST on Monday, August 30, 2021. The ESMC POC for proposal submission is Caroline Wade. Proposals should be submitted via email to cwade@ecosystems-services-market.org.

Proposals should not exceed 25 pages in length (total), to include a one- to two-page cover letter. Page margins for the proposal must be no smaller than 1" on all sides and font should be no smaller than 11 points.

Page limitations for the proposal by section are as follows:

- Cover page – not to exceed 2 pages
- Scope of work + Timeline of activities – not to exceed 17 pages combined



- Budget – not to exceed 3 pages
- Statement of Qualifications – not to exceed 3 pages

Proposals exceeding stated page limitations will not be considered.

Application Point of Contact (POC): Applicants must identify a designated POC, to include phone and email coordinates; and all designated project leads.

PROPOSAL REVIEW TIMELINE

- **July 16, 2021:** Request for proposals is released by ESMC/ESMRC.
- **July 22, 2021 @ 12:00-1:00 pm ET (Eastern Time):** ESMC/ESMRC to host a virtual Q&A session for applicants (to register contact Caroline Wade at cwade@ecosystems-servicesmarket.org).
- **July 29, 2021 @ 2:00-3:00 pm ET:** ESMC/ESMRC to host a virtual Q&A session for applicants (to register contact Caroline Wade at cwade@ecosystems-servicesmarket.org).
- **August 30, 2021:** Proposals are due to ESMC/ESMRC designated POC by 5:00 pm US EST.
- **September 30, 2021:** ESMC/ESMRC awards the contract.