

REQUEST FOR PROPOSAL No. 063017

Environmental Health Strategy Center

Biobased Chemical Market Analysis: Potential Markets for Chemicals Manufactured from Maine
Lignocellulosic Biomass

June 30, 2017

1. Summary and Background

Environmental Health Strategy Center, with its project partners the University of Maine and Biobased Maine, has been awarded a federal grant from the U.S. Economic Development Administration for a project entitled, “Diversifying Maine’s Forest-Based Economy: Biobased Manufacturing from Renewable Biomass.” The aim of this project is to attract investment that creates good manufacturing jobs in rural Maine to convert renewable biomass into advanced and sustainable biobased products, such as biobased chemicals and bioplastics, to meet rising global demand.

The 3-year project will extend from September 2016 through August 2019 and be administered by Environmental Health Strategy Center, a nonprofit organization with offices in Portland and Bangor, Maine that works for healthy products in a healthy economy.

The purpose of this RFP is to solicit competitive bids for a Biobased Chemical Market Analysis to help identify potential global markets for cellulosic sugars, biobased platform chemicals, and other biobased chemicals that can be manufactured from Maine’s lignocellulosic biomass. In a separate effort to help accelerate the manufacture of cellulosic sugars in Maine, we are identifying the most viable technologies and chemistries for converting our biomass into industrial sugars and then into higher value biobased chemicals. A critical part of this process is to characterize the global market for the sugars or other intermediary products we may manufacture in Maine.

2. Project Scope

The scope of work should consist of the following:

- A. Summary of the pathways to market for bioproducts/biochemical from cellulosic biomass.
- B. Summary of market and end-user demand trends regarding bioproducts/biochemical including:
 - a. Identification of potential partners
 - b. Identification of customers/buyers
 - c. Preliminary review of key barriers to entry
 - d. Preliminary identification of product specifications for selected applications
- C. Summary of major price and preference drivers related to bioproducts/biochemicals.

- D. Identification of any additional product or other information which needs to be developed related to our objectives of manufacturing biobased chemicals in Maine.
- E. Identify and evaluate scenarios for extracting full value from various side streams at an integrated biorefinery, including C6 sugars, C5 sugars, and lignin. Discuss strategies for integrating market opportunities and partners to justify the overall economics.
- F. Based on market barriers, identify any potential barriers to market development and entry specific to Maine.
- G. Discuss possible business models and options relating to enhancing the bioproducts/biochemical value proposition for Maine-sourced biomaterials.
- H. Recommendations for Maine to be competitive within the biobased chemical space.

3. Project Timeline

All proposals in response to this RFP are due no later than 5 pm EST on July 28, 2016. Evaluation of proposals will likely be conducted until August 11, 2017. If additional information or discussions are needed with any bidders during this time, the bidder(s) will be notified using the contact information provided in the bid.

The selection decision for the winning bidder will likely be made by August 11, 2017. Upon notification, the contract negotiation with the winning bidder will begin immediately. Contract negotiations will aim to be completed by August 18, 2017.

Environmental Health Strategy Center will initiate a kick-off meeting (or call) with the contractor once contract negotiations have ended and the contract has been signed. A specific timeline for project deliverables will be established during this meeting, although the work described herein should be completed in an accelerated timeframe, with a likely timeframe of August 18 - September 29, 2017.

4. Proposal Guidelines

This Request for Proposal represents the requirements for an open and competitive process. Proposals will be accepted until 5pm EST July 28, 2017. Any proposals received after this date and time will not be considered. All proposals must be signed by an official agent or representative of the company submitting the proposal.

If the organization submitting a proposal must outsource or contract any work to meet the requirements contained herein, this must be clearly stated in the proposal. Additionally, all costs included in proposals must be all-inclusive to include any outsourced or contracted work. Any proposals which call for outsourcing or contracting work must include a name and description of

the organizations being contracted. All costs included in proposals must be itemized to include an explanation of all fees and costs. Contract terms and conditions will be negotiated upon selection of the winning bidder for this RFP. All contractual terms and conditions will be subject to legal review by Environmental Health Strategy Center's attorney and will include scope, schedule, budget, and other necessary items pertaining to the project.

As this project will be supported by federal funds, all contracts will contain flow-down language from the federal award and require adherence to relevant federal regulations. A sample is available upon request. **Respondents must enclose with their proposal a signed copy of Form CD-512, available from http://ci.noaa.gov/sites/lci/Documents/Forms/funding_forms_CD-512.pdf documenting their understanding of the federal requirements.**

Electronic copies of proposals are preferred (.pdf) and can be emailed directly to cmace@biobasedmaine.org. Environmental Health Strategy Center will confirm receipt of bids as they arrive with a confirmation email to the sender.

5. Project Budget

All proposals must include proposed costs to complete the tasks described in the project scope. All costs and fees must be clearly described in the proposal. Contracts will consist of time-and-materials budgets with a not-to-exceed ceiling price. Project budgets may be no more than \$40,000.

6. Bidder Qualifications

Bidders should provide the following items as part of their proposal for consideration:

- Description of experience in characterizing the global sugars market, specific to biobased manufacturing
- List of how many full-time, part-time, and contractor staff in your organization
- Examples of three previous projects successfully completed to the satisfaction of a client
- References for the three successful projects described above
- Anticipated personnel you will assign to this project (name, title, brief summary of academic background and professional experience)
- Timeframe for completion of project

7. Proposal Evaluation Criteria

Environmental Health Strategy Center (and its project partners, as appropriate) will evaluate all proposals based on the following criteria. To ensure consideration for this Request for Proposal, your proposal should be complete and include all of the following criteria:

- Overall proposal suitability: proposed analysis must meet the scope and needs included herein and be presented in a clear and organized manner

- Organizational experience: bidders will be evaluated on their experience as it pertains to the scope of this project
- Previous work: bidders will be evaluated on the examples of previous projects completed successfully and the references of past clients of these projects
- Value and cost: bidders will be evaluated on the cost of their analysis based on the work to be performed in accordance with the scope of this project
- Expertise and experience: bidders will be evaluated on the documentation of their staff's expertise and experience
- Additional consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources or accessibility to other necessary resources to ensure successful project completion
- Non-response bids or proposals (i.e., those with material deficiencies, omissions, errors, or inconsistencies) will not be considered
- No contract shall be made with parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs
- All necessary affirmative steps will be taken to solicit participation of minority-owned, female-owned, and small businesses.

For questions about this proposal, please contact:

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