



Sugar Research
Australia

REQUEST FOR TENDER

Life Cycle Assessment of Australian Cane Sugar Supply Chain (Raw Sugar)

Proposals must be received by COB 12 October 2020

SRA Reference

This document has been prepared to provide information to assist prospective tenderers in the preparation and submission of proposals to undertake a Life Cycle Analysis (LCA) of Australian raw sugar (cradle to market [processor gate]). The LCA outputs are expected to help the industry better understand, benchmark, and improve its environmental contribution to human health, environment, ecosystem quality and resource use (including waste management).

Background

Sugar Research Australia (SRA) invests in and manages a portfolio of RD&A projects that drive productivity, profitability and sustainability for the Australian sugarcane industry. As an industry-owned company, SRA is committed to setting the right targets, managing research investments to maximise the likelihood of success, and ensuring the delivery and adoption of project outcomes and impacts across the Australian sugarcane industry.

The SRA Strategic Plan details eight Key Focus Areas (KFAs) for research investment to respond to industry's needs through to 2021-22 (https://sugarrsearch.com.au/wp-content/uploads/2017/03/Strategic-Plan-2017-D0.6_FINAL.pdf). KFA2, *Soil Health, Nutrient Management & Environmental Sustainability*), aims to drive “balanced crop nutrition & practice standards for a profitable industry with a secure social license to operate.” with the priorities of “maintaining industry social license to operate through sustainable sugar production & minimised off-farm impact”.

SRA is keen to develop a detailed understanding of the environmental performance of Australian sugar industry's products and business operations. The study will require a detailed quantification of the environmental impacts along the raw sugar value chain.

In this context, SRA is seeking expressions of interest from suitably qualified and experienced individuals or groups to undertake LCA and likely missed opportunities for using LCA outputs

(if positive) to benchmark and improve the industry's environmental performance. The work is to be completed within two years.

Project Scope and Objectives

The proposed raw sugar LCA project has four main objectives:

- 1) Engage industry and update the LCA inventory with comprehensive and robust 'Cradle to Market' environmental data utilising peer and ISO accepted methods and approaches.
- 2) Provide to industry the full LCA inventory dataset in a manner that is easily interpretable and understood.
- 3) Provide recommendations to industry on how the LCA data and information should be presented to stakeholders considering the risks identified by the "Risk Assessment" sub-project; and
- 4) Prepare the LCA inventory data and information in a way that allows for separate and tailored benchmarking, comparisons, analysis, recommendations, and report writing against the risks to the industry value chain.

The suggested scope of the LCA study is as follows.

Evaluate the environmental impacts associated with Australian raw sugar up to refinery gate (Cradle to Market refinery gate). Consideration should be given also to factoring in associated production outputs such as co-generation (given the CO₂-e benefits) and as a separate analysis, bio-ethanol production from molasses.

The assessment will provide progress and final reports to include the following:

- The cradle to market environmental impacts of raw sugar as a minimum, with co-generation and potentially bioethanol as a separate production output.
- Environmental performance at regional level as a minimum (i.e. NSW, Southern, Central, Herbert/Burdekin and North growing regions).
- Update the LCA inventory across the most significant environmental metrics such as greenhouse gas emissions (including IPCC emission factors) and major inputs at farm, milling, bioethanol and power production stages of the value chain
- Provision of easily interpretable and understood data and information that allows the industry to respond robustly and effectively to current and future risks and opportunities.

The findings of the assessment will be used by SRA, to consult with industry and inform efforts to minimise environmental impacts and exploit opportunities for improving resource use efficiency, support diversification, influence policy and improve social licence to operate.

Outputs

A document addressing the project scope and objectives. A written interim report will be required and reviewed by SRA before the submission of a final report.

Peer-reviewed publications and targeted industry reports/communications

The accepted final report will be published on the SRA website.

Resources and Budget

The proposal should include a detailed and fully costed budget commensurate with the key activities and deliverables required, and a formal payment schedule including GST provisions. While this report is expected to primarily be a desktop study, the consultant is expected to consult via interviews, questionnaire, email, secondary data sources, etc. senior representatives of key stakeholders.

Selection Criteria and Process

SRA reserves the right to facilitate collaboration among tenderers with different fields of expertise, to construct a team with comprehensive coverage of the project scope. SRA expects all applicants to be willing to collaborate with others, if necessary, to achieve the tender outcomes.

Selection of the successful proposal(s) will be based on the following criteria:

- The applicant or project team having:
 - a sound understanding of the Australian raw sugar industry value chain, environment sustainability and social licence
 - proven LCA delivery experience, especially agricultural LCA related
 - a demonstrated role in research delivery with well-developed industry and researcher networks
 - a logical methodology to address the project scope and objectives.
- The quoted price for the work, including overall fees, the proposed timeframe and in-kind or other contributions from the research organisation and any other participants in the research.
- The tenderer being a legal entity with which SRA can contract. The tender submission must describe and provide evidence of the legal status of the tenderer, including an Australian Business Number (ABN) if appropriate.

Tenderers must declare to SRA any matter or issue which may be perceived to be, or may lead to, a conflict of interest regarding their proposal or participation in the supply of the services described. Tenderers must outline a strategy so that any actual conflict of interest will be avoided.

Reporting Requirements

The successful applicant(s) will be required to enter into the standard research agreement with SRA. Milestone and final reports will be prepared in line with SRA report guidelines. There are four deliverables, as outlined in Table 1.

Table 1.

Deliverable	Timeline
Contracting	1 November 2020
Progress report 1	1 May 2021
Progress report 2	1 December 2021

Progress report 3	1 May 2022
Final report: The final report will address all the objectives and take into consideration feedback from SRA on the draft	1 December 2022

Negotiation and Part-Offers

After short-listing, SRA may engage in detailed discussions and negotiations with one or more tenderers to maximise the benefits of the tender proposals submitted.

Confidentiality and IP

Where information is available which may assist the research organisation in meeting the requirements of this tender, SRA will provide such information to the researcher. All data and cited references must be acknowledged appropriately in the final report and resulting scientific articles and it is the sole responsibility of the applicant to ensure copyright laws are not breached.

All proposals and any accompanying documents will become the property of SRA. Ownership of all information, reports or data provided by SRA to tenderers resides with SRA. The tenderer shall not, without the written approval of the Chief Executive Officer of SRA, use the information or reports other than in the development of the proposal or the performance of the activity. Such information, in whatever form provided by SRA or converted by the tenderer, must be destroyed securely following the advice of the outcome of the tender or after the assignment. The final review document will be publicly available via the SRA website.

Further information

For further information regarding this tender, please contact Dr Gus Manatsa (Research Funding Unit Program Manager).

Phone (07) 3331 3346 or 0439 369421

Email gmanatsa@sugarresearch.com.au

Submissions

Proposals must be lodged by email to funding@sugarresearch.com.au and must be **received by COB 12 October 2020**.