



Invitation to tender for REAL's Research Hub Project:

Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size

Tender Invitation Document

EXECUTIVE SUMMARY

Renewable Energy Assurance Limited (REAL) invites contractors to tender for the work outlined below. Following a competitive tender process, REAL will appoint the successful contractor to deliver the project.

Purpose of the tender

The purpose of the tender opportunity is to appoint a contractor to develop and deliver REAL's Research Hub project titled '*Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size.*'

Tender timeframe

Deadline for receipt of tender submissions: **20th December 2024**

Deadline for questions in relation to this tender: **29th November 2024**

Tenderers receive written notification of REAL's decision: **13th January 2025**

Work programme

Contract start date: **20th January 2025**

Contract duration: **6.3 months**

**REAL reserve the right to change this timetable*

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1 INTRODUCTION

This Section introduces Renewable Energy Assurance Ltd. and explains its work in administering the Organics Schemes and the Research Hub.

Renewable Energy Assurance Ltd (REAL) is a wholly owned subsidiary of The Association for Renewable Energy and Clean Technology (The REA). REAL carries out a range of certification and consumer protection activities, all of which promote sustainable energy and circular resource use (organics recycling). REAL's activities fall under two headings; certification schemes and consumer codes.

Among other codes and schemes, REAL owns and administers the following quality certification schemes related to the organics recycling sector: the Compost Certification Scheme (CCS), the Biofertiliser Certification Scheme (BCS) and the Compostable Materials Certification Scheme (CMCS). The CCS and BCS enforce high quality standards for compost and biofertiliser (i.e., quality-certified anaerobic digestate), respectively. Together, these schemes provide assurance to consumers, farmers, food producers and retailers that quality-certified compost and digestate is safe for human, animal, and plant health.

In 2019, through collaboration with the CCS/BCS Technical Advisory Committee (TAC), REAL established the Research Hub. The Research Hub functions as a tool to source research funding from the composting and anaerobic digestion industries. With these funds, the Research Hub commissions projects aimed at developing the technical and regulatory aspects of certified compost and digestate production, improving testing and usage of certified compost and digestate, and reinforcing certified compost and digestate markets.

REAL wishes to appoint a contractor to develop and deliver project commissioned by the Research Hub titled *'Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size.'*

The appointed contractor will be required to work with the REAL-appointed Steering Group, the Research Hub's Research Panel and REAL staff.

This document sets out the scope and parameters of the work which REAL wishes to commission and describes how contractors may tender to undertake this work for REAL.

2 PROJECT BACKGROUND AND SCOPE

This Section explains project's relevance to REAL's work and the wider organics recycling industry and outlines the project's intended contributions.

2.1 Project Background

The PAS110 standard requires operators to produce digestate that is below stated benchmark thresholds for physical contaminants. These thresholds are likely to be reduced in the near future and operators will need to find ways to continue to achieve compliance with the standard. If this is achieved by installation or replacement of more efficient screening techniques, what other impacts are there likely to be on digestate quality of the final products?

A screen that is included as a process step for control of physical contaminants is highly likely to be designated a critical control point (CCP) in an operator's HACCP study. Any change to the particle size of a screen which has been designated a CCP or key pre-requisite control measure for physical contaminants will be regarded as a significant, non-temporary change in the digestate production process. Consequently, in order for the production process to be validated or revalidated, all parameters must be tested in accordance with Table 1 of PAS 110.

To achieve process validation and re-validation, three-in-a-row sample analysis passes are required for each parameter specified in the standard. If passes are achieved on all parameters for the first portion of production tested during re-validation, this portion of production can be dispatched under positive release. This is also applicable for subsequent portions if they pass on all parameters. During revalidation, the portion of production tested must be the same as the portion defined for initial validation, unless the minimum frequencies for testing representative samples of digestate after validation are adhered to (Table 4 of PAS 110) instead. Benchmark thresholds for physical contaminants are laid out in the PAS110 standard according to a sliding scale of digestate total N content.

The analysis of digestate from a range of feedstocks and screen sizes will enable broad guidelines to be established on the likelihood of non-compliant screened fibre resulting from the use of finer screens. This will provide valuable information to allow operators to avoid application of potentially plastic contaminated fibre to land under deployment. It will also allow an evaluation of the impact of nutrient distribution on screened liquor/fibre at different screen sizes which will potentially inform a number of aspects of the scheme.

2.2 Project Scope

This project aims to allow operators to select the best technology for reducing plastic contaminants whilst retaining the nutrient content of final digestate products, and to determine if small changes in screen size impact significantly on digestate quality factors other than physical contaminants. This may help to determine, if an operator reduces screen size, which parameters, other than physical contaminants, may need to be re-validated.

Whilst, optimally, the screening and comparisons would be undertaken on an operational site, this is impractical. Consequently, this study will involve laboratory analysis of digestate samples taken from digesters processing a small range of feedstocks (100% waste input to inputs from agricultural systems) screened through a range of screen sizes (3mm to 0.5mm).

The project's key objectives are as follows:

1. To compare the relative proportions of nutrients and contaminants (and their nature) in the final liquor and fibre/screenings for different screen sizes used.
2. To determine compliance of digester outputs with PAS110 for each group of screened materials.
3. To determine the relative significance of any differences in digestate quality identified in material screened at different screening size.

3 SERVICES REQUIRED

This Section describes the work which will be required of the contractor to deliver the project.

- 3.1** The appointed contractor will develop and deliver REAL's Research Hub Project titled '*Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size.*'

The appointed contractor will be responsible for fulfilling the project objectives outlined in Section 2.2 of this Tender Invitation Document. In addition to these objectives, the project should include the following key elements:

3.1.1 Key Elements

- Laboratory analysis of digestate samples taken from digesters processing a small range of feedstocks (100% waste input to inputs from agricultural systems) screened through a range of screen sizes (3mm to 0.5mm). Specify in your proposal: -
 - How you will obtain sufficient appropriate samples for testing to fit in with the relatively short time frame for this project (designed so results can feed into the legislative review).
 - How many samples to be analysed, of which type of digestates and how many replicate analyses.
 - Screen size and material - what size gaps you propose working with and what the screens will be made of.
 - Use of control samples.
 - Consideration of temperature (which may vary from site to site depending on where the pasteurisation step is in the process and how soon after release from the pasteuriser that the screening step takes place).
- Contextualisation of findings in the laboratory in relation to different screening methods used on site.
- Measurement of the proportion of digestate retained on the screen and compositional analysis of the digestate (e.g. nutrient content and carbon content) before screening, and of the screened digestate and liquor, after screening (Refer to PAS 110 Analysis Suite and methodology).
- Measurement of the contaminant content (principally plastic) for each screened solid and liquor.
- For each group of screened digester outputs, assessment of compliance with PAS110.
- Consideration of potential routes for screened material which is non-PAS 110 compliant.
- An overview of the impact of the screen size on nutrient distribution in the final screened fractions and the relative significance of any differences in digestate quality identified in material screened at different screening size.
- A recommendation for the optimum reduction in screen size, and accordingly, an overview of the parameters, other than physical contaminants, that may need to be re-validated in order to achieve compliance with PAS110.

3.1.2 Project Deliverables

- Regular meetings with the Steering Group to provide project updates and agree project milestones.
- Fulfilment of the key objectives of the project, taking into account the key elements outlined in Section 3.1 of this document.

- A final meeting with REAL to discuss the project in its entirety, during which the appointed contractor shall present the findings enclosed in the final report.
- A final report “*Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size*’ covering the key elements described above.

3.2 Competence requirements

REAL will appoint a contractor (an individual, organisation or consortium) with:

- Access to appropriate laboratory testing facilities
- Expertise in laboratory analysis of digestate samples
- Experience of working with screen size technology
- Experience of assessment for compliance with PAS110
- Expertise in producing reports to inform policy
- A good understanding of separation technologies used on site.

4 TENDER REQUIREMENTS

This Section provides instructions for preparing tenders.

4.1 Your tender should be submitted by email and should be limited to no more than 10 x A4 sides at minimum 10pt font (excluding appendices).

4.2 Your tender must include the following information in the order indicated:

I. An executive summary

This should be no longer than one side of A4 paper, outlining the proposed work and including the total cost of the proposed work, inclusive of Value Added Tax (“VAT”) and anticipated expenses.

II. Company/Organisation details

Please include the following information:

- The name of the Company submitting the tender;
- The registered office name, address, VAT number (if applicable) and company or charity registration number;
- The name of the nominated contact person within the tenderer’s organisation;
- Contact details including address, telephone number and e-mail address

REAL will accept tenders from both individual companies and from consortia. Should you decide to tender as part of a consortium, you will need to identify one member of the consortium (the “Lead Contractor”) to act as the contracting party. All other consortium members will be sub-contractors to the Lead Contractor.

III. A description of your working methods

You will need to make clear how you intend to deliver the work and provide estimated timescales for delivery.

IV. A description of the project team who will manage and deliver the work

This should include a list of individuals, their respective roles within the organisation and, for the purposes of this work, their relevant skills and experience including any relevant professional qualifications.

V. An identification of any sub-contractors to be used

You should include a list of any sub-contractors you intend to use to deliver the work.

VI. Evidence of a track record in undertaking work similar to that described in this document

VII. Breakdown costs (exclusive of VAT) including;

- Individual day rates and number of days of each staff member involved in delivering work
- Expenses

VIII. Identification of any conflicts of interest

Please disclose any conflicts of interest which might arise if you were selected to undertake the work. Please also include a contingency plan for addressing any identified conflict(s) of interest, should conflict(s) arise. Where you tender as part of a consortium, all members of the consortium should be considered.

IX. A copy of your Environmental Policy and evidence of any accredited Environmental Management System.

X. Written confirmation that you have the necessary permits, licences or exemptions required for the services.

XI. Appendices

Tenderers should include the following documents as appendices:

- Audited or management accounts for the last 2 financial years;
REAL reserves the right to reject bids from Contractors where the accounts show that the Contractor might be at risk of insolvency.
- A statement of any material litigation, pending or threatened, or other legal proceedings;
REAL reserves the right to reject bids from Contractors subject to legal proceedings where in REAL's reasonable opinion such proceedings could impact upon the Contractor's ability to deliver the services required.
- Evidence of the level of professional indemnity, public liability and property damage insurance cover held.
REAL will require minimum cover levels of:
 - £1 million professional indemnity;
 - £2 million public liability;
 - £2 million property damage.

To be considered for evaluation, Contractors must have this cover in place at the time of bidding or must include (as part of the tender submission) a commitment to take out such cover in the event of being appointed.

- 4.3** Should you have any questions in relation to the type of information required by REAL, please contact the person identified in Section 6 of this Tender Invitation Document to discuss.

- 4.4** All tender submissions will be treated on a confidential basis by REAL and its advisers, subject to the provisions of the Freedom of Information Act 2000.

5 EVALUATION CRITERIA

This Section specifies the criteria REAL will use to evaluate the tender submissions and appoint a contractor.

- 5.1** REAL must be satisfied that each potential contractor has the appropriate capabilities and resources available to undertake the work to REAL’s requirements and provide the necessary services.
- 5.2** REAL will select its Research Hub contractors through a competitive process. Your tender submission should be written to address the key requirements and scope of the work and demonstrate how it meets the evaluation criteria below:

Evaluation criteria	Weighting
Cost of work	20%
Methodology proposed to deliver required services	40%
Authority of allocated personnel, their skills and technical capability	20%
Corporate environmental commitment – submission of credible environmental policy and/or environmental management system details	5%
Relevant experience	15%

6 SUBMISSION INSTRUCTIONS

This Section provides instructions for submitting tenders.

Please send one electronic copy (via email) of your tender submission to Jackie Robinson, Project Manager at jackie@recc.org.uk.

Emails containing Tender submissions should clearly state the following in the subject field: *“Appraisal of the Impact on digestate quality with a final screening step, from introduction of a smaller screen size.” – Tender Submission Document’*

The deadline to submit a tender for this project is: **20th December 2024**

If you wish to ask any questions relating to this tender, please contact the Project Manager in writing only.*

**NOTE: All questions submitted about this Tender Invitation Document will be anonymised and uploaded to the Research Hub website as a Q&A at least one week prior to the deadline for tender submissions.*

7 TENDER PROCESS & TIMETABLE

This Section explains the tender process and outlines the expected timeline.

- 7.1 All tender submissions must remain valid for a minimum period of 90 days following the deadline for receipt of tender submissions.
- 7.2 All tender submissions will be competitively assessed against the evaluation criteria, outlined in Section 5 of this document.
- 7.3 The target timetable for this process is as follows:
- Deadline for tender submissions: **20th December 2024**
 - Deadline for questions in relation to this tender: **29th November 2024**
 - Tenderers receive written notification of REAL's decision: **13th January 2025**
- 7.4 All tenderers will receive written notification of REAL's decision and will have the opportunity to discuss feedback on their tender submission.
- 7.5 This information is offered in good faith for the guidance of interested parties, but no warranty or representation is given as to the accuracy or completeness of any of it. REAL and its advisers shall not be liable for any error, misstatement, or omission. No aspect of this procedure shall constitute a contract or part of a contract. Tenderers participate in the process on the strict understanding that the procedure may be altered or that REAL may not proceed for any reason. REAL reserves the right not to follow up this Tender Invitation Document in any way and in particular not to enter into any contractual arrangement with any of the tenderers. REAL does not bind itself to enter into negotiations or proceed with or accept any tender. Any decision to tender is at the sole discretion of the tenderer and REAL excludes all liability in respect of any tendering costs incurred.
- 7.6 Any contract entered into as a result of this tender process shall be in accordance with REAL's terms and conditions of contract.
- 7.7 Tenderers taking part in this process acknowledge and accept that REAL may publish details about the winning bid (such as the contract value and the name of the winning bidder) on appropriate webpages under its control.