



Invitation to tender for REAL's Research Hub Project:

Plant Response Test Interpretation and Comparison:

Investigating performance of the UK Tomato Plant Response Test and German Spring Barley Test on CCS Compost

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 '*Plant Response Test Interpretation and Comparison.*'

Tender timeframe

Deadline for receipt of tender submissions: **4th November 2022**

Deadline for questions in relation to this tender: **14th October 2022**

Tenderers receive written notification of REAL's decision: **December 2022**

Work programme

Contract start date: **January 2022**

Contract duration: **Up to 18 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 the project commissioned by the Research Hub titled '*Plant Response Test Interpretation and Comparison.*'

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

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

2 PROJECT BACKGROUND AND SCOPE

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

2.1 Project Background

The tomato plant response test (PRT) is used in the Compost Certification Scheme (CCS) as a bioassay to screen for phytotoxins in finished composts. The test simultaneously assesses for 'weed seeds and propagules', phytotoxins and is a general compost maturity bioassay.

Within the CCS, an operator whose sampled compost batch has failed the PRT is required to investigate the cause of the failure, apply corrective action to the failed batch of compost, and pass a subsequent PRT test to proceed to market. The presence of weed seeds and propagules, or abnormalities of plant growth (i.e., due to herbicide residue), are some of the possible causes of tomato PRT failure. However, it is harder to identify the cause(s) of PRT failures on germination and top growth. If the cause of failure is not identified, operators may face challenges determining and implementing the appropriate corrective action(s). Assuming corrective action(s) can be applied and further sample from the 'corrected batch' is supplied, an additional 28 days is required before a new PRT result can be reported. Holding of compost batches onsite due to PRT failure can have a dramatic effect on operations.

The spring barley test has been considered as a potential alternative to the tomato plant response test. Advantages of the spring barley test include shorter duration (10-12 days rather than 28 days), comparative simplicity, and relevance to agricultural markets.

2.2 Project Scope

The aim of the project is to assess the performance of the spring barley test on CCS composts to consider including the spring barley test (in future versions of PAS100) as a potential follow-up test to the tomato plant test.

To fulfil this aim, the project's key objectives are as follows:

1. To understand the cause(s) of tomato PRT failure on germination and top growth, informed by compost sample characterisation analysis (standard and non-standard parameters) and spring barley test performance
2. To determine key parameters (both standard and non-standard under CCS) of the spring barley test that operators could use to aid interpretation of tomato plant response test performance.
3. To develop a dataset of the comparative performance of the tomato plant response and the spring barley tests with a range of relevant compost samples to support decision making in the development of PAS100.

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 'Plant Response Test Interpretation and Comparison.'

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:

- Methodology:
 - Test compost samples from [CCS producers](#) using both the tomato plant response and spring barley tests.
 - Analyse compost samples for relevant physicochemical parameters to help interpret tomato plant response and spring barley test results. Parameters may include those not currently analysed as standard on the scheme but considered relevant.
 - Consider performance of the tomato plant response test and the spring barley test in both controlled growth environment (e.g., growth room or growth cabinet) and temperature-controlled glasshouse.

Please note:

- The contractor will be required to source and test samples from a range of CCS producers throughout the year, including samples likely to be at relatively high risk of failing the tomato PRT test. REAL will aim to support sampling efforts as needed.
- CCS-approved labs routinely carry out testing of CCS composts including using the tomato plant response test (more information [here](#)).

3.2 Project Deliverables

- A final report on:
 - Assessment of cause(s) of tomato PRT failure on germination/top growth, informed by compost characterisation analysis (standard and non-standard parameters) and spring barley test performance
 - Analysis and interpretation of data on the comparative performance of the tomato plant response and the spring barley tests with a range of relevant compost samples
 - A report section providing guidance for CCS operators, when handling tomato PRT failures, on interpretation of compost sample characterisation test results, practical actions they could take
- Regular meetings with the REAL Project Management Team to provide project updates and agree project milestones.
- A final meeting with the REAL Project Management Team to discuss the project in its entirety, during which the appointed contractor shall present the findings enclosed in the final report.

3.3 Competence requirements

REAL will appoint a contractor (an individual, organisation, or consortium) with experience and/or expertise of the following:

- Familiarity with the Compost Certification Scheme, PAS100, and the PRT method

- Knowledge about compost, including understanding of key physiochemical characteristics of organic matter
- Experience conducting lab and desk-based research and analysis

4 TENDER REQUIREMENTS

This Section provides instructions for preparing tenders, including all information required.

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 5 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 Megan Muller-Girard, Research Hub Manager at Renewable Energy Assurance Limited at **megan@realschemes.org.uk**.

Emails containing Tender submissions should clearly state the following in the subject field: 'PRT Interpretation and Comparison – Tender Submission Document'

The deadline to submit a tender for this project is: **4th November 2022**

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

**NOTE: All questions submitted to REAL 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: **4th November 2022**
 - Deadline for questions in relation to this tender: **14th October 2022**
 - Tenderers receive written notification of REAL's decision: **December 2022**
- 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.