

COMMERCIALLY CONFIDENTIAL



Closing date Thursday 11 March 2010

Renewables East would like to engage the services of a consultant/company with the expertise and knowledge to deliver the scope of work below.

1. SUMMARY

Renewables East (“RE”) is engaged in programmes with the East of England Development Agency (EEDA) to accelerate the route to market of very early stage renewable energy technologies, increasing both the quantity and quality of investable concepts capable of growing across the two regions.

2. Background

The Renewable East Technology Acceleration Scheme helps entrepreneurs, businesses and other technology developers create successful and innovative renewable energy solutions. It does this by providing early-stages funding and other support to help ideas reach a level of development and credibility at which other significant funding options become viable.

The general objectives of the scheme are to:

Increase the strength of the renewable energy engineering and service sector in the East of England.

Help adoption of renewable energy technologies by producers and consumers in the region.

3. About Renewables East

Renewables East is a private company delivering the services associated with being the renewable energy agency for the East of England. The Company is funded by the East of England Development Agency (EEDA) and officially designated as an EEDA sister organisation. For the year 2009/10, RE has been allocated in excess of £2m from various sources including EEDA, ERDF and central government to continue its mission.

The objectives of the Company are:

a. To enable the East of England to meet its adopted target for the production of energy from renewable resources, within the context of national energy policy and the need to move towards a lower carbon economy; and

b. To maximise the rate of growth of the renewable energy sector and the economic benefits to the region, especially through stimulating investment and job opportunities, supply chain development and innovation.

Renewables East's primary work areas are Bioenergy (Biomass and Biofuels,) Offshore/Onshore Wind, Planning, Supply Chain Development and the Mass Market Renewables agenda. If you have not already done so, you may find a visit to our web-site useful www.renewableseast.org.uk.

4. Scope of Work

The scope of work to be undertaken and anticipated activity timescales, are as detailed below:

- Involves a single phase domestic device
- Conduct a period of electronic simulation, using the industry standard pSPICE modelling programme.
- This will provide outline system, sub system and component level specifications
- It will also provide initial quantification of performance criteria, including efficiency levels
- To design an initial 'breadboard' prototype to confirm simulation output.

Circuit specification 5-7 days

The input and output voltage ranges and the range of load powers over which the device should work to be agreed. Values for passive components to be calculated against this specification and suitable semiconductor components chosen. A means of generating the required input waveform will be defined. The performance of the proposed circuit to be checked by a pSPICE simulation model.

Circuit construction 5-7 days

Lay out and manufacturing of a suitable printed circuit board, sourcing components and then populating the board. It is intended that several spare boards are also created.

Testing 5-7 days

Testing will be carried out to confirm circuit operation. Depending on the results any modifications felt necessary to be made to the circuit. A second stage of testing will be carried out against the specification to check performance as a function of input voltage and load.

Loss measurements 3-4 days

Maintaining losses within tight limits is key to the success of the device. Losses to be measured using a calorimeter at a range of operating conditions. The losses will be compared to predictions.

5. Written Quotations

Please send a written response on:

- A maximum of two pages summarising delivery and facilities to deliver scope of work

- Details of daily/hourly rates, expected expense levels and current location.

by e-mail to johnheath@renewableseast.org.uk Responses are to be submitted electronically and must be received by Renewables East no later than **1200hrs on Thursday 11 March 2010**

6. Restricted and Commercially Confidential
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