



RenewNet
Linking Renewable Thinking

Institute of Energy Systems,
University of Edinburgh
Mayfield Rd, Edinburgh EH9 3JL

tel 0131 650 5694

steve.earl@ed.ac.uk

Project Proposal

Project Title: Linear Generator selection for Wave energy convertor

Prepared for: Power Engineering is Awesome plc

Prepared by: KEF#, Job Title: Knowledge Exchange Fellow

1 September 2011

Proposal number: 123-4567





Executive Summary

Objective

Development of a linear generator and appropriate power electronics for a novel wave energy convertor device.

Goals

- Design advice for linear generator
- Review current technology
- Advice on paired power electronics for device optimisation
- Define control strategies for device and generator
- Future development options



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Project Schedule

Date	Task
Month 1	RenewNet KEF and company Engineer define device characteristics
	RenewNet KEF and company Engineer define design properties for generator
Month 2	Design of Generator and suppliers sought
	Control and power electronics simulated using software
1 month wait	wait for products to be manufactured
Month 3	Testing of final design and components

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Future Funding Options



Duration	Funding Mechanism and details
up to 6 Months	<p>Consultancy - with appropriate research group. Innovation Voucher or similar schemes offering up to £5000 normally</p> <p>match funding is required.</p> <p>RenewNet Secondment fund - second an RA or PhD from a Scottish University who is an expert in the field. RenewNet contributes £5,000 of cost and companies are expected a minimum cash contribution of £7,200</p>
6-18 Months	<p>Knowledge Transfer Partnership (KTP) - A public grant funded that offers incentives for companies to work with universities. A Knowledge transfer associate is recruited, from the successful grant, who acts as a middle man between the university and company, The associates are normally based at the company but have access to university facilities. Between 10 weeks to 2 years in duration. Companies are expected to contribute 1/3 of the total cost normally ~£20,000 per year.</p> <p>SMART: Scotland - Scottish Enterprise award for innovate ideas and technology 2 version of the grant. Feasibility and R&D grant. Feasibility funds up to £75,000 projects and the grant covers 75% of project costs and is normally 6-18 months duration. The R&D offers grants from 6-36 months and offers £75,000 - £600,000 and will fund up 35% of the total project costs</p> <p>TSB R&D grant - Development of Prototype Grant is most relevant and is UK wide version of the SMART Scotland award but different costs associated. The projects last up to 2 years and have a maximum grant of £250k; up to 35% of total project costs for medium enterprises, or up to 45% for small and micro enterprises.</p>



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Duration	Funding Mechanism and details
18 months over	<p>ETP PhD studentship - 3 Year PhD studentship, co-funded by ETP, a Scottish University and an industry partner, each partner contributes equally. Total value £75k-£85k per year with typical industry contribution £20k-£25k per year</p> <p>CASE PhD - EPSRC PhD studentship, Companies contribute to a EPSRC funded project typically 1/3 of the grant and the average being ~£23,040 from previous projects</p> <p>TSB calls:- there are no TSB calls/competitions open at the moment aligned with this work</p>



Project Budget

How will the project match funding be accounted for

Please include all match funding, including in-kind time, cash, resources and/or external contractors

Description	Quantity	Unit Price	Cost
Company Engineers time (3 months)	1	£7,000.00	£7,000.00
Equipment and manufacture costs	1	£8,000.00	£8,000.00
			£0.00
RenewNet KEF (cost covered by RenewNet	3	£3,500.00	£10,500.00
RenewNet academic time (costs covered by Re- newNet	3	£1,000.00	£3,000.00
			£0.00
			£0.00
			£0.00
		Subtotal	£28,500.00
			£0.00
		Total	£28,500.00



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Contact Information

Any questions regarding the report please contact:

Steve Earl
Institute of Energy Systems, University of Edinburgh
Mayfield Road
Edinburgh EH9 3JL
Tel 0131 650 6594

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www.renewnet.org.uk

skype: renewnet-steve