



Consultancy Brief - Technical Services to identify energy efficiency and energy supply options for community facilities.

1. Introduction

Community Energy Scotland (CES) is looking for technical support, working with community groups alongside CES Development Officers, to define micro renewable technologies and energy efficiency measures that will make community facilities more sustainable. The potential overall value of the work is £100,000.

2. Background

Community Energy Scotland aims to build confidence, resilience and wealth at community level in Scotland through sustainable energy development. CES currently delivers the Scottish Government's Community and Renewable Energy Scheme (CARES), which supports small scale community renewable energy projects. We also provide funding and support to help communities develop larger-scale projects which generate long term revenue.

Community Energy Scotland is approached for grant funding by community groups to assess renewable and energy efficiency options for community facilities. Most renewable options for buildings are limited but large amounts of energy can be saved by effective energy efficiency measures. Community Energy Scotland is keen communities get well defined advice on specific measures and material changes a community group can make to improve the energy utilisation within the facility.

CES are looking for contractors to visit community buildings and provide detailed reports on energy efficiency measures and options for renewable energy.

3. The Requirement

The requirement is for Community Energy Scotland to have a selected list of technical advisors that community groups can choose from to get a report on energy efficiency measures and potential renewable options they can implement to improve the energy performance of their facility.

The reports will allow community groups to decide which measures to implement on the basis of cost effectiveness, operational requirements and long term benefits. The report will give sufficient outline specification information to allow the community group to put together a tender for the work.

Community Energy Scotland requires a list of technical advisors across the CES South of Scotland area that communities can use in conjunction with the support from Community Energy Scotland Development Officers (local authority areas comprising this area are on attached questionnaire).

Community Energy Scotland is specifically looking for responses from contractors who have experience in energy management, micro renewable technologies and energy efficiency measures for community buildings.

4. The Technical Appraisal Process and Timescales.

The process for Technical Advisors who are selected through this tendering process will be:

1. Community Groups will choose from the list of technical advisors using the information provided by the companies for this tendering response
2. The Group will provide the advisor with contact details for lead contact in their group, address of community facility, information (ideally a year's worth of fuel bills) that will allow calculation of annual expenditure and energy consumption for heating and electricity and a layout plan of the building.
3. Advisor will visit the property, survey the building fabric, heating system and electrical fittings and appliances and speak to the group to ascertain what the building is used for and occupancy patterns.
4. Advisor will produce a report detailing energy efficiency measures and any options for using renewable technologies to improve the energy performance of the building.

The Advisor will visit the property no later than 10 working days of being appointed to do the survey, unless otherwise agreed. The report will be supplied to the group no later than 5 working days after the visit, subject to necessary info being provided by the community group. The community group will have 5 days to query any points for clarification or amendment, at which time report accepted as final version.

The report needs to be submitted as a physical copy to the community group along with an electronic copy to the local Development Officer.

The contents required in the report are in an appendix at the end of this brief.

Communities will be informed of any previous work you have done under this contract to aid selection.

5. Cost

CES expect the cost of this service to be about £1500 incl VAT per community facility. The price should include VAT and travel and subsistence. Community groups tend not to be VAT registered and therefore cannot reclaim VAT.

Communities may require additional work and tenders should include a day rate; again this should be a single day fee including travel. Additional work must be agreed to by CES in writing before commencement.

6. Tender Process.

Companies responding to this ITT are to return:

1. Completed Proforma
2. Two examples of reports done for similar projects

Responses that do not meet these requirements will be ignored. CES will assess the tenders on quality and price and experience. Feedback from CES to unsuccessful tenders will be purely on the basis of price and quality.

Quality will be reviewed on the basis of how your example reports and proforma responses meet our specifications.

Please note that for projects presented in the proforma, references may be sought.

CEs operates in three areas in the South;

South East Scotland which includes Council areas; East Lothian, Edinburgh City, Falkirk, Fife, Midlothian and Scottish Borders.

South West Scotland which includes; Dumfries and Galloway, East Ayrshire, North Ayrshire and South Ayrshire.

Innerclyde, Glasgow and Lanarkshire which includes; East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Lanarkshire, Renfrewshire, South Lanarkshire and West Dunbartonshire.

CES expect to have at least 3 companies on the framework list per area which communities will be free to choose from.

The contract will be between the community and service supplier and the report will be owned by the community group. CES will have the option to publish the reports produced on its web site.

7. Management

Each commission will be managed by the local Community Energy Scotland Development Officer. The work will be completed under the terms and conditions of Community Energy Scotland.

Any questions regarding this tender brief should be addressed to
Eric.Dodd@communityenergyscotland.org.uk
Tel 01349 860 125

8. Timescale

Community Energy Scotland expect the frame work to be in place until 31 March 2011 with a potential extension to 2012.

Tenders will be expected to submit tenders by **midday on 28 June 2010**;
A short list of companies will be by CES produced by **2 July 2010**.
Interviews will be held *if required* by **9th July**

9. Contract

You are advised that nothing herein or in any other communication made between Community Energy Scotland, or its agents and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between Community Energy Scotland and any other party (save for a formal award of contract made in writing by or on behalf of Community Energy Scotland) nor shall they be taken as constituting a contract, agreement or representation that a contract shall be offered in accordance herewith or at all.

10. Tender Submissions

Tender submissions must be sent to the following postal address **by 12 noon on Monday the 28th June**. No electronic copies.

Companies responding to this ITT are to return:

1. Completed Proforma
2. Examples of reports done for two similar projects

Community Energy Scotland
Consultancy Technical Brief
Level 3, St Georges Buildings
5 St Vincent Place
Glasgow G1 2DH

See below – Appendix: Required Content of Report.

Appendix: Required Content of Report

1. Facility: Type, Current Condition and Usage

Building

Size, Type, Age, construction type, insulation (walls, floors, roof), condition of building fabric (including doors, windows, walls, cracks, gaps etc), ventilation. Include layout plan in this section.

Heating and Hot Water System

Describe current provision for heating and hot water, including age, condition, type of controls and time and temperature settings, and, as appropriate, size and type of boiler, heat distribution system, size of hot water tank.

Uses of Electricity

Describe main uses of electricity in the building including lighting and any electrical appliances which are significant consumers of electricity.

Energy Consumption and Heat Load

Calculate heat load of the building in current condition. Show u-values for the different fabrics of the building used.

In a table, show annual energy consumption (kWh) for heating and electricity, unit costs, annual costs, CO₂ emissions.

Occupancy Patterns

Comment on suitability of current provision for heating and hot water for the building and settings used relative to what the building is used for and occupancy patterns.

Comment on any changes to use of electricity relative to occupancy patterns too, eg controls on lighting.

2. Recommended Energy Efficiency Measures

Propose methods for improving energy efficiency of the building (eg roof insulation; draught proofing doors, windows, flooring, skirting; window repair/replacement/secondary glazing; ventilation; draught lobby; ...). Describe workable measures to reduce heat loss and energy consumption, including work and trades required and materials involved. Give estimated cost for doing the work, and potential annual kWh, running cost and CO₂ savings and payback times.

Calculate the heat and electricity loads of the building and annual kWh consumptions on the basis of all reasonable, affordable measures having been done to reduce heat loss and energy demand.

Please show:

action	Cap cost	Annual kwh savings	Annual cost saving	CO2 savings	payback			
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3. Improvements to/Replacement of Heating System

If current system for space and water heating is adequate, describe any measures that would improve performance, eg controls and settings for time and temperature and how system is managed. Provide capital cost for these improvements and likely savings.

If system should be replaced, describe appropriate system(s) for space and water heating to replace it, which would compliment use and occupancy pattern of building. Include size/output of boiler required assuming reasonable improvements have been done to reduce heat loss of building; size of hot water tank if needed or specify alternative supply; controls for the system; heat distribution system and any zoning recommended.

For options relating to space heating and hot water, please show:

Technology	Capital cost	Annual maintenance and servicing costs	Annual kWh consumption	Efficiency	P/kWh	Annual Running costs	CO2 emissions	Payback time
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For options for electricity generation, please show:

Technology	Cap cost	Ann maintenance	Annual kwh production	Annual Savings on running costs	CO2 savings	payback			
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4. Options for using renewable technologies

Most community facilities will be able to reduce energy consumption through a variety of measures. In some cases, renewable technologies will be appropriate for reducing the running costs of buildings and in some cases will provide an income.

It is not necessary to provide an explanation of all the different technologies and how they work; this information is available elsewhere.

State any renewable technologies that would be appropriate for the building, describing what will make them suitable for that specific site, taking account of the building's location, layout, type, age, construction, use and occupancy patterns.

Describe operational requirements for controlling and managing the system day to day to optimise performance. Estimate capital cost. Briefly describe any maintenance and servicing requirements and annual cost of this. State any considerations, requirements or restrictions relating to planning permission and building warrant.

In addition to these general requirements, for any technologies appropriate for the site, these points are to be addressed:

Heat Pumps: Air to air, Air to water, Exhaust Air, Water Source, Ground Source

Include approximate size of heat pump and buffer tank; recommendations for heat distribution (fan convector units/fan assisted radiators/large radiators/combo/underfloor); indication area of ground loops or no./depth bore holes or no. air to air units needed; any requirement to upgrade to 3 phase electricity supply.

Automated Wood fuel systems: Log, chip, pellet

Include approx size of automated wood fuel boiler/stove and accumulator tank; any requirements for heat distribution system; location and size of fuel store and number and type of deliveries. *3 phase?*
Identify any option for District heating.

Hybrid Systems of Mains Gas and Heat Pumps or Wood fuel systems

If a facility is in a mains gas area and lends itself to a hybrid system, please include this.

Solar Thermal: Evacuated Tube, Flat plate

Give details on: Area of panels; estimated output per m²; location on roof; if roof strong enough to take panels or structural survey required; size of hot water tank recommended; just for hot water or both heating and hot water.

Solar PV

Give details on: Area of panels; estimated output per m²; kWp output; location on roof; if roof strong enough.

Wind

Use Carbon Trust wind database to provide average annual wind speed (m/s) for the site; show suitable location(s) for the turbine and distance to connection to community building; examples of suitable turbine types; any opportunity for Wind2Heat system with accumulator tank or storage heaters.

Hydro

If a water source is nearby like stream/river give an indication of its suitability, as regards head and energy.

5. Conclusion

Ensure that sufficient information has been provided so that groups working with CES team can make a confident decision on how to proceed. The report will allow the group to make confident approaches to contractors with outline specifications of requirements and receive quality responses that they can compare with each other and the technical report recommendations.

It is not the consultants responsibility to mention or discuss levels of Grant funding that is the responsibility of the Community Energy Scotland Development Officer.

END

Invitation To Tender by CES 150610