On Site Generation

Community Contact Details

Name of Community Organisation:
Contact Name:
Address:

Telephone:
Email:

Community Support

Has a high level of support for the system been established?

Are members of the community not directly benefiting from the system (i.e. receiving heat) likely to be affected by proximity to the boiler house / store / flue or significantly disrupted during construction work (i.e. by noise, access etc)?

What kind of heating systems do the properties currently have?

What are the levels of satisfaction with the current systems?

Heat Demand

How many properties will be linked to the DH system?

What is the overall heat demand?

This can be estimated using the following table. See section 3.2 of accompanying report for guidance.

Property Size	Energy Efficiency		
	High	Medium	Low
Small	5 kW	5.9	7.85
Medium	7 kW	8 kW	11 kW
Large	9 kW	11 kW	15.5

Guidance notes:

Energy efficiency: newer buildings will have higher levels of insulation and air tightness than older buildings. However, take account of retro-fitted measures, such as loft insulation, cavity wall insulation and draught-proofing

Property size: small (1-2 bedroom); medium (3-4 bedroom); large (5 bedroom +)

Heat demand makes an allowance for hot water as well as space heating requirement

Fuel Availability

Is there an area of community / local woodland that could be managed to supply wood fuel?

If not is there a local sawmill or other reliable source of quality wood fuel?

How far are the nearest woodchip / pellet suppliers?

Boiler Type and Size, Boiler House and Fuel Store

Is there space for a boiler room and store near the houses?

Who owns the land?

Is there an existing building / shed that can be converted?

Can the existing road network accommodate large haulage vehicles and is there access directly to the fuel storage area?

Distribution System

What is the distance of DH pipework required (external to properties)?

What are the ground conditions like?

e.g.
Hard dig (tarmac / concrete / rock)
or Soft dig (soil)

Are there any obstacles that need to be crossed or detoured around, eg roads, railways, buildings?

Connection to Properties

How many of the properties have existing wet heating systems?

Will those that require new heating systems or upgrade of existing systems be willing to meet the cost?

Permissions

Are the properties located in a conservation area, national park, area of outstanding natural beauty, SSSI or other sensitive designation?

Are any of the properties listed?

Are the properties located in a smokeless zone or air quality management area?

Is the existing road system able to accommodate large haulage vehicles?

Will the landscape be significantly affected by the presence of a boiler house, store and flue?

Management of the system and charging structure

Will the community be willing to manage the maintenance, fuel supply and charging of the heat (potentially by setting up an ESCo) or will this be outsourced?

Economic Appraisal

This section is designed to give a rough indication of likely costs only and should not be used for detailed economic planning. There are many site specific variables that could significantly affect costs and therefore a comprehensive economic appraisal should be carried out following a feasibility study.

Capital Cost Estimate

Item	Assumption	Cost Estimate
Boiler (inc flue and installation)	£x per kW of heat demand	
Boiler house and fuel store	Upgrade existing building = New building =	
Distribution Network	Distance Hard dig Soft dig 100 m 250 m 500 m 1000+	
Interface Units	Assume £x per property	
Subtotal		
Design and Management	Assume % of subtotal	

Running costs

Fuel Supply	£/tonne	p/kWh
Wood chip from local community owned and managed woodland		TBC
Wood chip delivered (MC<30%)	80	2.3
Wood pellet	160	3.4
Add 35% to fuel supply cost for management, maintenance and electricity		

Payback

TBC

The Next Steps

1. Contact local planning office for early discussions to highlight any potentially difficult planning issues.

2. Contact local building control department and check building warrant requirements.

3. Contact Community Energy Scotland for guidance on funding

4. Collate information to assist with detailed design such as heat demand assessment and distribution system design (refer to Sections 3.2 and 3.5 of report)

6. Consider how the community group will manage the scheme

If no significant barriers are encountered based on the above, proceed with a detailed feasibility study.

Useful Contacts

Contacts	Name	Number
Planning Case Officer		
Building Control Officer		
Fuel Suppliers		
Others		

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