

Development	Biomass	Nat. Gas CHP	Biomass CHP	Ground source HP	Air source HP	Small wind	Medium wind	District Heating	Solar Thermal	Photovoltaics
<ul style="list-style-type: none"> <li>Single large dwelling in a semi-rural location on a generously sized plot with no immediate neighbours</li> <li>Connected to gas grid</li> <li>Building fabric no better than required by building regs</li> <li>Soil conditions have good thermal conductivity</li> </ul>	Yes	Possibly Not quite as much saving as biomass but could get to 10%	No	Possibly But would require large ground area. Carbon savings marginal	Technically possible but better option would be GSHP due to efficiencies	No	Yes	No	Possibly Would need to be careful of having competing technologies	Possibly Won't get close to 10% but could contribute
<ul style="list-style-type: none"> <li>Medium sized single dwelling on a sub-urban plot</li> <li>Aiming for near-PassivHaus fabric standard</li> <li>Heavily overshadowed by trees</li> <li>Poor thermal conductivity of soil, shallow depth to bedrock</li> </ul>	Yes.	Yes. Small heating load but DHW with store could provide load.	No	Possibly Could do vertical energy piles. Might be expensive for such small heat load.	Possibly Potentially cheaper for small thermal load	No	No	No	No Overshading	No Overshading
<ul style="list-style-type: none"> <li>Development of 10 closely spaced small-medium sized houses in a sub-urban setting</li> <li>Aiming for Code for Sustainable Homes level 4</li> <li>Likely to be attractive / marketed to slightly older people due to local community and amenities</li> </ul>	Yes	Yes	No	Possibly Vertical piles	Possibly but less carbon savings than biomass or NG-CHP. Purchaser perception of underfloor heating?	No	No	No	Yes	Yes
<ul style="list-style-type: none"> <li>Renovation of small urban commercial/retail property</li> <li>Requires cooling load due to heavy display lighting loads (e.g. jewellers)</li> <li>No external space</li> <li>Developer-lead for leasing</li> </ul>	No Increased maintenance potential unlikely to appeal to commercial setting	Potentially but different focus on payback periods for commercial setting is challenging	No	Unlikely to have suitable land space	Yes Cooling load will allow it to be run in dual mode	No	No	No	Possibly Would need to be careful of having competing technologies	Possibly. Won't get close to 10% but could contribute
<ul style="list-style-type: none"> <li>Block of 6 flats on constrained urban site</li> <li>3 storey</li> <li>Intended for rental market by developer</li> <li>On top of a hill in a conservation area</li> </ul>	No People don't want to lug fuel upstairs	Yes. Small heating load but DHW with store could provide load.	No		Flat roof would provide space. Inherent low heat loss of flats good	No	No	Possibly Due to leasehold nature of flats with service charge.	Yes. Flat roof would provide good siting position	Yes.