**Microgeneration Checklist Report**

calculated by program SAP Calculator version 3.3, printed on 13, October 2009, at 14:39:45
SAP assessment by Site Measurement Services Ltd
, St Marys Lane, , , postal code RM13 3QA
Applicable regulations: England and Wales
The results of the calculation should not be accepted without first checking the input data

**Example Heat Pump Project**

**HEAT PUMP**

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**1. Comparison in Dwelling Emission Rate (DER)**

Dwelling existing heating system DER = 42.43 kg/m²
Dwelling with microgeneration included DER = 31.32 kg/m²

Projected reduction in carbon emissions 35.47%

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**2. Fabric U-values**

| U-values: | Element | Average | Highest |
|---|---|---|---|
| | Wall | 0.30 (max. 0.35) | 0.30 (max. 0.70) |
| | Floor | 0.84 (max. 0.25) | 0.84 (max. 0.70) |
| | Roof | 0.40 (max. 0.25) | 0.40 (max. 0.35) |
| | Openings | 1.96 (max. 2.20) | 3.90 (max. 3.30) |

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**2.1 Heating efficiency**

Main heating system: Central Heating systems (wet), Heat pump, Ground-to-water heat pump with auxiliary heater (electric) (Table 4a)

Efficiency: 300.0 %
Minimum: 300.0 %

Secondary heating system: Room heater systems, Electric (direct-acting), Panel, convector or radiant heaters

Efficiency: 100.00
Minimum: 100.00

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**2.2 Cylinder insulation**

Hot water storage Nominal cylinder loss: 1.67 kWh/day
Permitted by DHCG 2.10
Primary pipework insulated: No

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**2.3 Controls**

Space heating controls Programmer + at least two room thermostats

Hot water controls:
Cylinderstat
Cylinder timer

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**2.4 Microgeneration system details - heat pump**

**Heat pump input data:**

| | |
|---|---|
| Heating system | Central Heating systems (wet) |
| Fuel | Electricity 7-hour |
| Heat Source | Heat pump |
| Heating Controls | Programmer + at least two room thermostats |
| System | Ground-to-water heat pump with auxiliary heater (electric) |
| Heat emitters | Radiators |
| Boiler efficiency (default) | 300.00% |
| Pump in heated space Or Warm Air Fan | No |
| Condensing Boiler has load or weather | No |
| Fan Assisted | No |
| Boiler Interlock | No |
| Boiler in heated space | No |
| Delayed start | No |

The performance of Microgeneration heat pump systems is impossible to predict with certainty due to the variability of the climate and its subsequent effect on both heat supply and demand. This estimate is based upon the best available information but is given as guidance only and should not be considered as a guarantee.

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