# Secondary Recommendations Report

Not for Official Submission

## **Building name**

# **Mount Pleasant House**

**Building type:**Office Date: Tue Apr 14 15:07:06 2009

This report lists recommendations for energy-efficiency improvements to the building.

# Key to colour codes used in this report

Included by the calculation Included by the user Excluded by the user

# Recommendations for HEATING

#### HEATING accounts for 53% of the CO2 emissions

(If hot water is provided by the HVAC system, then the % of CO2 emissions includes hot water provision) The overall energy performance of HEATING provision is POOR

The overall CO2 performance of HEATING provision is POOR

The average energy efficiency of HEATING provision is POOR

The average CO2 efficiency of HEATING provision is POOR

#### Add local time control to heating system.

Code: EPC-H5 **Energy Impact:** LOW CO2 Impact: LOW CO2 Saved per £ Spent: **POOR** Whole building Applicable to:

Comments:

#### Add optimum start/stop to the heating system.

EPC-H7 **Energy Impact:** MEDIUM CO2 Impact: **MEDIUM** CO2 Saved per £ Spent: **POOR** Applicable to: Whole building

Comments:

#### Add weather compensation controls to heating system.

Code: EPC-H8 **MEDIUM** Energy Impact: CO2 Impact: **MEDIUM** CO2 Saved per £ Spent: **POOR** Whole building Applicable to:

Comments:

## Consider replacing heating boiler plant with high efficiency type.

EPC-H1 Code: **Energy Impact:** HIGH

CO2 Impact: HIGH CO2 Saved per £ Spent: FAIR

Applicable to: Whole building

#### Comments:

#### Consider replacing heating boiler plant with a condensing type.

Code: EPC-H3
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

# The default heat generator efficiency is chosen. It is recommended that the heat generator system be investigated to gain an understanding of its efficiency and possible improvements.

Code: EPC-H4
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

#### Consider replacing heating boiler plant with high efficiency type.

Code: EPC-H1
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: FAIR

Applicable to: Ideal Concord Super Series3

Comments:

### Consider replacing heating boiler plant with a condensing type.

Code: EPC-H3
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR

Applicable to: Ideal Concord Super Series3

Comments:

# The default heat generator efficiency is chosen. It is recommended that the heat generator system be investigated to gain an understanding of its efficiency and possible improvements.

Code: EPC-H4
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR

Applicable to: Ideal Concord Super Series3

Comments:

#### Add local time control to heating system.

 Code:
 EPC-H5

 Energy Impact:
 LOW

 CO2 Impact:
 LOW

 CO2 Saved per £ Spent:
 POOR

Applicable to: Ideal Concord Super Series3

Comments:

#### Add optimum start/stop to the heating system.

Code: EPC-H7
Energy Impact: MEDIUM
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR

Applicable to: Ideal Concord Super Series3

#### Comments:

#### Add weather compensation controls to heating system.

Code: EPC-H8
Energy Impact: MEDIUM
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR

Applicable to: Ideal Concord Super Series3

Comments:

#### Add optimum start/stop to the heating system.

Code: EPC-H7
Energy Impact: LOW
CO2 Impact: LOW
CO2 Saved per £ Spent: POOR
Applicable to: Electric Heaters

Comments:

#### Add weather compensation controls to heating system.

Code: EPC-H8
Energy Impact: LOW
CO2 Impact: LOW
CO2 Saved per £ Spent: POOR
Applicable to: Electric Heaters

Comments:

# Recommendations for COOLING

#### COOLING accounts for 0% of the CO2 emissions

The overall energy performance of COOLING provision is NOT APPLICABLE The overall CO2 performance of COOLING provision is NOT APPLICABLE The average energy efficiency of COOLING provision is NOT APPLICABLE The average CO2 efficiency of COOLING provision is NOT APPLICABLE

There are no recommendations for COOLING

## **Recommendations for HOT-WATER**

#### **HOT-WATER** accounts for 0% of the CO2 emissions

(If hot water is provided by the HVAC system, then hot water provision is included in the % of CO2 emissions due to HEATING)

The overall energy performance of HOT-WATER provision is GOOD

The overall CO2 performance of HOT-WATER provision is GOOD

The average energy efficiency of HOT-WATER provision is NOT APPLICABLE

The average CO2 efficiency of HOT-WATER provision is NOT APPLICABLE

There are no recommendations for HOT-WATER

# **Recommendations for LIGHTING**

#### LIGHTING accounts for 45% of the CO2 emissions

The overall energy performance of LIGHTING provision is FAIR The overall CO2 performance of LIGHTING provision is FAIR

### Consider replacing T8 lamps with retrofit T5 conversion kit.

Code: EPC-L5
Energy Impact: MEDIUM
CO2 Impact: HIGH
CO2 Saved per £ Spent: GOOD
Applicable to: Whole building

Comments:

Introduce HF (high frequency) ballasts for fluorescent tubes: Reduced number of fittings required.

Code: EPC-L7
Energy Impact: LOW
CO2 Impact: LOW
CO2 Saved per £ Spent: GOOD
Applicable to: Whole building

Comments:

# **Recommendations for RENEWABLES**

## Consider installing a ground source heat pump.

Code: EPC-R1
Energy Impact: HIGH
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

## Consider installing building mounted wind turbine(s).

Code: EPC-R2
Energy Impact: LOW
CO2 Impact: LOW
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

## Consider installing solar water heating.

Code: EPC-R3
Energy Impact: LOW
CO2 Impact: LOW
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

# Consider installing PV.

Code: EPC-R4 Energy Impact: LOW CO2 Impact: LOW
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

#### Comments:

#### Consider installing an air source heat pump.

Code: EPC-R5
Energy Impact: HIGH
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

#### Comments:

## Consider installing a ground source heat pump.

Code: EPC-R1
Energy Impact: HIGH
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR
Applicable to: Electric Heaters

#### Comments:

## Consider installing an air source heat pump.

Code: EPC-R5
Energy Impact: MEDIUM
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR
Applicable to: Electric Heaters

#### Comments:

# Recommendations for OVERHEATING

The risk of some spaces in the building OVERHEATING is High risk

Some spaces have a significant risk of overheating. Consider solar control measures such as the application of reflective coating or shading devices to windows.

Code: EPC-V1
Energy Impact: MEDIUM
CO2 Impact: MEDIUM
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

#### Comments:

# **Recommendations for ENVELOPE**

### Some loft spaces are poorly insulated - install/improve insulation.

Code: EPC-E6
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

#### Comments:

Carry out a pressure test, identify and treat identified air leakage. Enter result in EPC calculation.

Code: EPC-E7
Energy Impact: HIGH
CO2 Impact: HIGH
CO2 Saved per £ Spent: POOR
Applicable to: Whole building

Comments:

# Recommendations for FUEL-SWITCHING

#### Consider switching from gas to biomass.

Code: EPC-F5
Energy Impact: LOW
CO2 Impact: HIGH
CO2 Saved per £ Spent: GOOD

Applicable to: Ideal Concord Super Series3

Comments:

# Recommendations for AUXILIARY

#### **AUXILIARY accounts for 2% of the CO2 emissions**

The overall energy performance of AUXILIARY provision is FAIR The overall CO2 performance of AUXILIARY provision is FAIR

There are no recommendations for AUXILIARY

# **Recommendations for OTHER**

There are no recommendations for OTHER