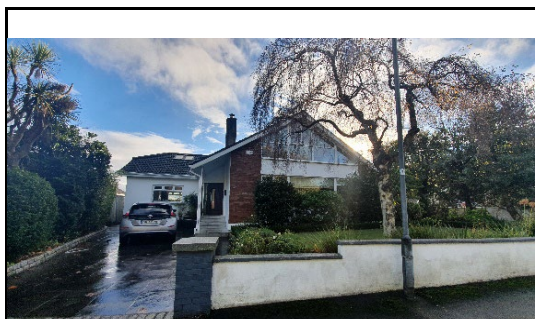


ENERGY AUDIT REPORT

House No.5 - Detached House - 1967 - Block (Unknown) Construction - 280.15m² (3015ft²)



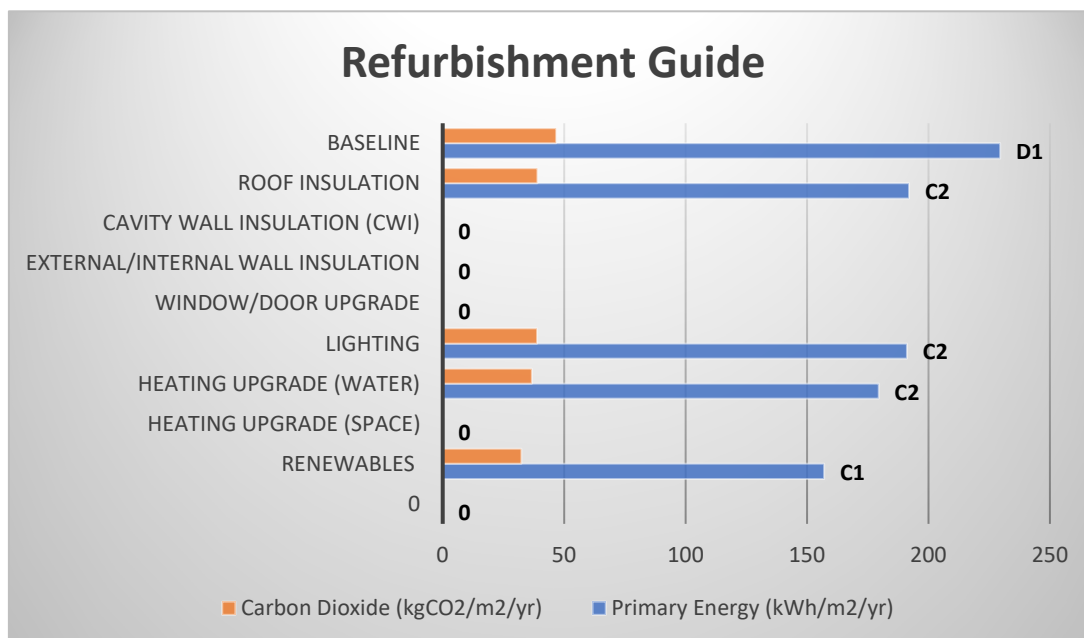
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	50mm	1.1 -2.1
Roof	Pitched Roof insulated at ceiling	50mm-100mm	0.4- 2.3
Floor	Suspended Floor	Unknown	0.56
Windows	Double Glazed	N/A	2.8
Doors	Solid Door	N/A	3.7

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Gas boiler, primary pipework uninsulated	Mains Gas	90%
Secondary Heating System	Closed Stove	Multi fuel	60%
Domestic Hot Water	Heated with Primary heating system & Electric immersion		
Cylinder	Cylinder with manufactured jacket (30mm)		
Controls	7 day Programmer, No thermostat		

Domestic Retrofit Guidelines (Step by Step)			Energy Consumption (kWh/m ² /yr)	Carbon Emissions (CO ₂) (kgCO ₂ /m ² /yr)	Building Energy Rating (BER)	
Energy Efficient Measures			Target U-Value (W/m ² .K)	Current Usage (229.56)	Current Emissions (46.75)	Current BER (D1)
1	Roof insulation	300mm loftwool to dormer voids and 100mm PIR to dormer slope	0.13 - 0.22	192.05	39.04	C2
2	Cavity Wall Insulation (CWI)	Pump Existing cavity with a bonded bead insulation	N/A			
3	External/Internal Wall Insulation	Install 100mm external wall insulation & 100mm PIR to dormer knee walls	N/A			
4	Window/Door Upgrade	Replace existing glazing with Double glazed,(low E) units	N/A			
5	Lighting	Install energy efficient light bulbs (LEDs)	N/A	191.15	38.87	C2
6	Heating Upgrade (Water)	Install Kronotherm HP	N/A	179.47	36.76	C2
7	Heating Upgrade (Space)	Install a condensing gas boiler	N/A			
8	Renewables	Install 3.7 kWp Solar PV system	N/A	157.03	32.35	C1
9						

ENERGY AUDIT REPORT



Estimated Costs Summary				
Measures		Estimated Costs (€/m ²)	Estimated Total Costs (€)	
1	Roof Upgrade	15 - 20	€ 4,291	
2	Cavity Wall upgrade	7 - 10	€ 0	
3	Wall Insulation	90-140	€ 0	
4	Window/Door upgrade	250 - 350	€ 0	
5	Lighting	20/fitting	€ 880	
6	Heating Upgrade (Secondary)	270L (System)	€ 4,250	
7	Heating Upgrade (Primary)	3,000 (System)	€ 0	
8	Solar PV	7,000 (3.7 kWp System)	€ 7,000	
9	Demand Controlled Ventilation	3,200 (System)	€ 0	
10	0	0	€ 0	
Total			€ 16,421	
Estimated Total Cost to Homeowner including Individual SEAI Grants			€ 12,821	
Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback including SEAI Grants
C1	72.53	20,319	€ 1,829	7

Audit site visit completed on 10.12.20, Audit report edited on 11.01.21