

ENERGY AUDIT REPORT

House No. 6 - Detached House - 1990 - Block (Unknown) Construction - 115.53m² (1247ft²)



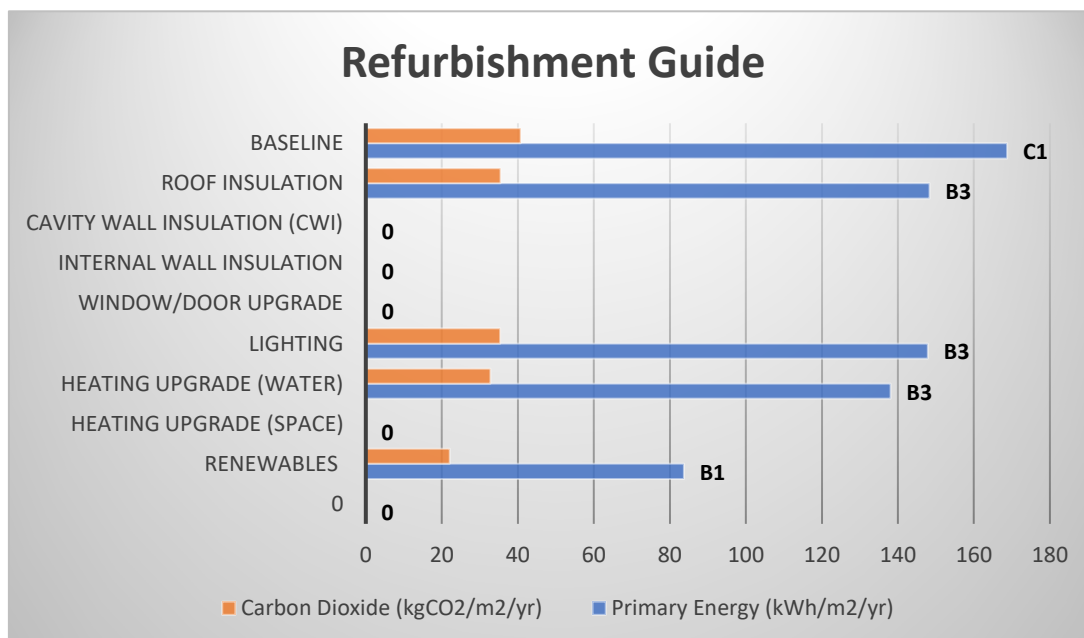
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	50mm	0.6
Roof	Pitched Roof insulated at ceiling	50mm-100mm	0.4
Floor	Solid Floor	Unknown	0.57
Windows	Double Glazed Air filled (low E)	N/A	2.2
Doors	Glazed Door	N/A	2

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Oil boiler, primary pipework uninsulated	Oil	>90%
Secondary Heating System	None	N/A	0%
Domestic Hot Water	Heated with Primary heating system & Solar		
Cylinder	Cylinder with manufactured jacket (50mm)		
Controls	7 day programmer, room 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 (168.72)	Current Emissions (40.79)	Current BER (C1)
1	Roof insulation	Loftwool Insulation top-up to achieve 300mm-400mm across all roof area.	0.13	148.35	35.45	B3
2	Cavity Wall Insulation (CWI)	Pump Existing cavity with a bonded bead insulation	N/A			
3	Internal Wall Insulation	Upgrade uninsulated walls (internal), thickness 50mm (% wall is already upgraded)	N/A			
4	Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units	N/A			
5	Lighting	Install energy efficient light bulbs (LEDs)	N/A	147.89	35.37	B3
6	Heating Upgrade (Water)	Install Kronotherm HP	N/A	138.06	32.82	B3
7	Heating Upgrade (Space)	New Boiler	N/A			
8	Renewables	Install 3.7 kWp Solar PV system	N/A	83.65	22.12	B1
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Estimated Costs Summary				
Measures		Estimated Costs (€/m ²)	Estimated Total Costs (€)	
1	Roof Upgrade	15 - 20	€ 1,733	
2	Cavity Wall upgrade	7 - 10	€ 0	
3	Wall Insulation	90-140	€ 0	
4	Window/Door upgrade	250 - 350	€ 0	
5	Lighting	20/fitting	€ 200	
6	Heating Upgrade (Water)	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			€ 13,183	
Estimated Total Cost to Homeowner including Individual SEAI Grants			€ 9,583	
Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
B1	85.07	9,828	€ 885	11

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