

ENERGY AUDIT REPORT

House No.7 - Detached House - 2004 - Block (Unknown) Construction - 115.38m² (1241ft²)



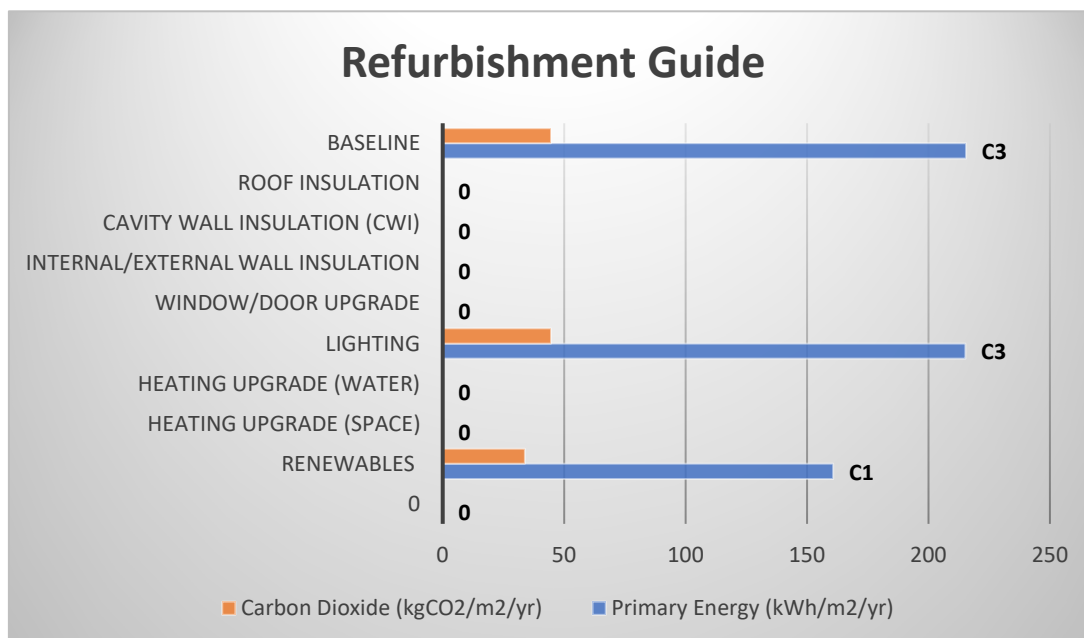
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	50mm-100mm	0.55
Roof	Pitched Roof insulated at Rafter	100mm-150mm	0.36
Floor	Solid Floor	Unknown	0.47
Windows	Double Glazed Air filled (low E)	N/A	2.2
Doors	Glazed Door	N/A	2.2

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Electric Underfloor to GF & Ceiling Heating to FF	Electricity	100%
Secondary Heating System	Closed Stove	Multi fuel	60%
Domestic Hot Water	Air to Water Heat Pump for Hot Water Only		
Cylinder	Cylinder with manufactured jacket (50mm)		
Controls	Time & Temp Zone Control		

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 (215.42)	Current Emissions (44.62)	Current BER (C3)
1	Roof insulation	Loftwool Insulation top-up to achieve 300mm-400mm across all roof area.	0.13 - 0.16			
2	Cavity Wall Insulation (CWI)	Pump Existing cavity with a bonded bead insulation	0.30 - 0.35			
3	Internal/External Wall Insulation	Install Wall Insulation (internal or External), thickness -100mm	0.3			
4	Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units	1.2			
5	Lighting	Install energy efficient light bulbs (LEDs)	N/A	215.2	44.58	C3
6	Heating Upgrade (Water)	Install Kronotherm HP	N/A			
7	Heating Upgrade (Space)	Install Gas Boiler	N/A			
8	Renewables	Install 3.7 kWp Solar PV system	N/A	160.72	33.87	C1
9						

ENERGY AUDIT REPORT



Estimated Costs Summary				
Measures		Estimated Costs (€/m ²)	Estimated Total Costs (€)	
1	Roof Upgrade	15 - 20	€ 0	
2	Cavity Wall upgrade	7 - 10	€ 0	
3	Wall Insulation	90-140	€ 0	
4	Window/Door upgrade	250 - 350	€ 0	
5	Lighting	20/fitting	€ 300	
6	Heating Upgrade (Water)	270L (System)	€ 0	
7	Heating Upgrade (Space)	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			€ 7,300	
Estimated Total Cost to Homeowner including Individual SEAI Grants			€ 5,200	
Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
C1	54.7	6,311	€ 568	9

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