

## ENERGY AUDIT REPORT

House No. 3 - Semi Detached House - 1980 - Unkown Block Construction - 125.39m<sup>2</sup> (1350ft<sup>2</sup>)



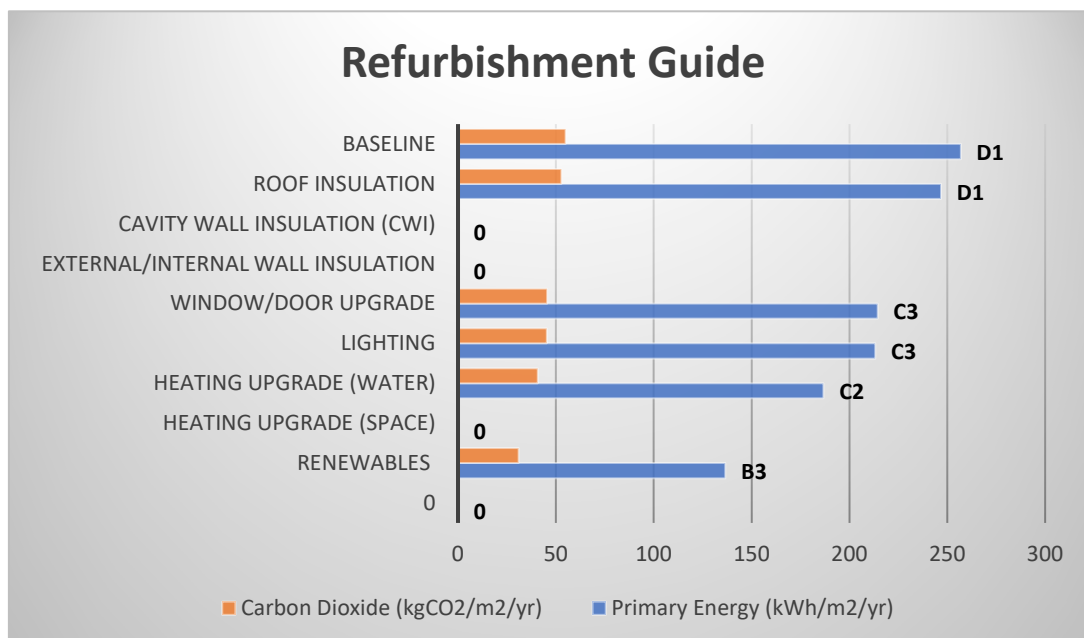
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m <sup>2</sup> .K)
Walls	Other	50mm	1.1
Roof	Pitched Roof insulated at ceiling	50mm-100mm	0.4
Floor	Solid Floor	Unknown	0.64
Windows	Single Glazed	N/A	4.8
Doors	Glazed Door	N/A	3

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Gas boiler, primary pipework uninsulated	Mains Gas	91%
Secondary Heating System	Open fire	Multi fuel	30%
Domestic Hot Water	Heated with Primary heating system & Electric immersion		
Cylinder	Cylinder with loose jacket (50mm)		
Controls	Time clock only, room thermostat		

Domestic Retrofit Guidelines (Step by Step)			Energy Consumption (kWh/m <sup>2</sup> /yr)	Carbon Emissions (CO <sub>2</sub> ) (kgCO <sub>2</sub> /m <sup>2</sup> /yr)	Building Energy Rating (BER)	
Energy Efficient Measures			Target U-Value (W/m <sup>2</sup> .K)	Current Usage (256.9)	Current Emissions (55.01)	Current BER (D1)
1	Roof insulation	Loftwool Insulation top-up to achieve minimum 300mm across all roof area.	0.13	246.87	52.79	D1
2	Cavity Wall Insulation (CWI)	Pump Existing cavity with a bonded bead insulation	N/A			
3	External/Internal Wall Insulation	Install Wall Insulation (internal or External), thickness -100mm	N/A			
4	Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units	1.2	214.4	45.6	C3
5	Lighting	Install energy efficient light bulbs (LEDs)	N/A	213.26	45.4	C3
6	Heating Upgrade (Water)	Install Kronotherm HP	N/A	186.73	40.75	C2
7	Heating Upgrade (Space)	Install New Boiler	N/A			
8	Renewables	Install 3.7 kWp Solar PV system	N/A	136.6	30.89	B3
9						

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Estimated Costs Summary				
Measures		Estimated Costs (€/m <sup>2</sup> )	Estimated Total Costs (€)	
1	Roof Upgrade	15 - 20	€ 1,366	
2	Cavity Wall upgrade	7 - 10	€ 0	
3	Wall Insulation	90-140	€ 0	
4	Window/Door upgrade	250 - 350	€ 6,981	
5	Lighting	20/fitting	€ 420	
6	Heating Upgrade (Water)	270L (System)	€ 4,250	
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	
<b>Total</b>			<b>€ 20,017</b>	
<b>Estimated Total Cost to Homeowner including Individual SEAI Grants</b>			<b>€ 16,617</b>	
Savings Summary				
BER Rating	Energy Savings (kWh/m <sup>2</sup> /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
B3	120.3	8,214	€ 739	22

Audit site visit completed on 10.12.20, Audit report edited on 08.01.21