

ENERGY AUDIT REPORT

House No. 1 - End of terrace House - 1980 - Unkown Block Construction - 95.8m² (1030ft²)



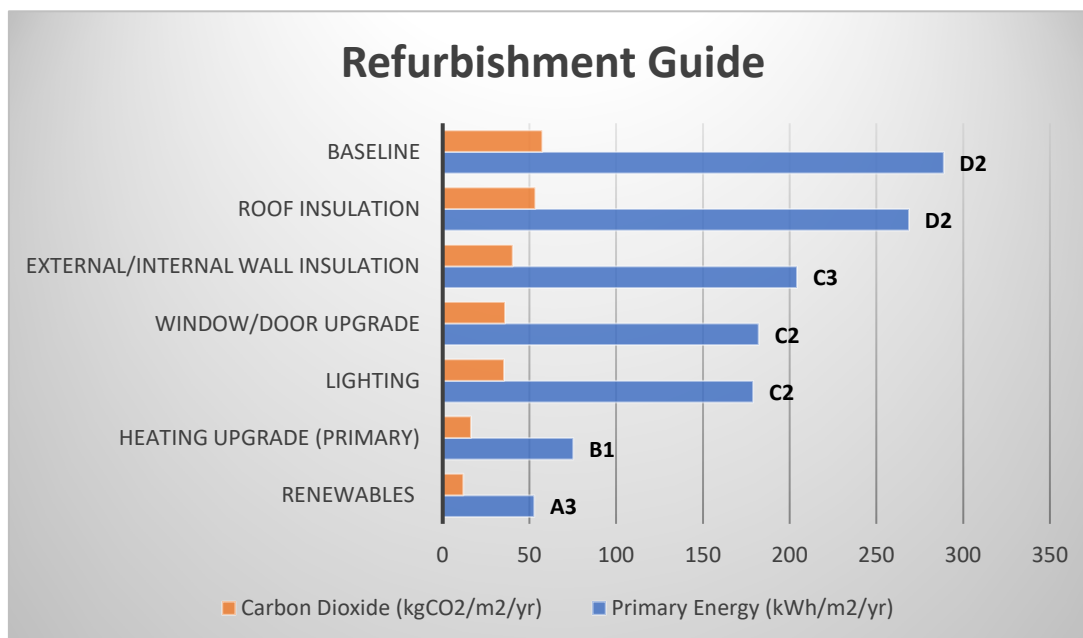
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	50mm	1.1
Roof	Pitched Roof insulated at ceiling	50mm-100mm	0.49
Floor	Solid Floor	Unknown	0.7
Windows	Double Glazed Air filled	N/A	2.8
Doors	Glazed Door	N/A	3

Existing Heating Characteristics			
Heating System		Energy	Efficiency (%)
Primary Heating System	Gas boiler, primary pipework uninsulated	Mains Gas	73%
Secondary Heating System	closed stove	Multi fuel	60%
Domestic Hot Water	Heated with Primary heating system & Electric immersion		
Cylinder	Cylinder with loose jacket (50mm)		
Controls	Programmer only		

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 (288.81)	Current Emissions (57.41)	Current BER (D2)
Roof insulation	Loftwool Insulation top-up to achieve minimum 300mm across all roof area.	0.13-0.16	268.79	53.36	D2	
External/Internal Wall Insulation	Install Wall Insulation (internal or External), thickness -100mm	0.3	204.29	40.33	C3	
Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units	1.2	182.2	35.87	C2	
Lighting	Install energy efficient light bulbs (LEDs)	N/A	178.99	35.25	C2	
Heating Upgrade (Primary)	Air to water heat pump, 4-6kW, two separate heating zones and controller.	N/A	75.18	16.22	B1	
Renewables	Install 1.2 kWp Solar PV system	N/A	52.79	11.82	A3	

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Estimated Costs Summary		
Measures	Estimated Costs (€/m ²)	Estimated Total Costs (€)
Roof Upgrade	15 - 20	€ 1,259
Wall Insulation	90-140	€ 13,643
Window/Door upgrade	250 - 350	€ 4,548
Lighting	20/fitting	€ 600
Heating Upgrade (Primary)	12,500 (System)	€ 12,500
Solar PV	2,400 (1.2 kWp System)	€ 2,400
Total		€ 34,950
Total Cost to Homeowner including One Stop Shop Grant		€ 12,950

Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
A3	236.02	22,611	€ 2,035	6

Audit site visit completed on 28.05.21, Audit report edited on 02.06.21