

ENERGY AUDIT REPORT

House No. 8 - Semi Detached House - 1970 - Hollow Block Construction - 150.27m² (1617ft²)



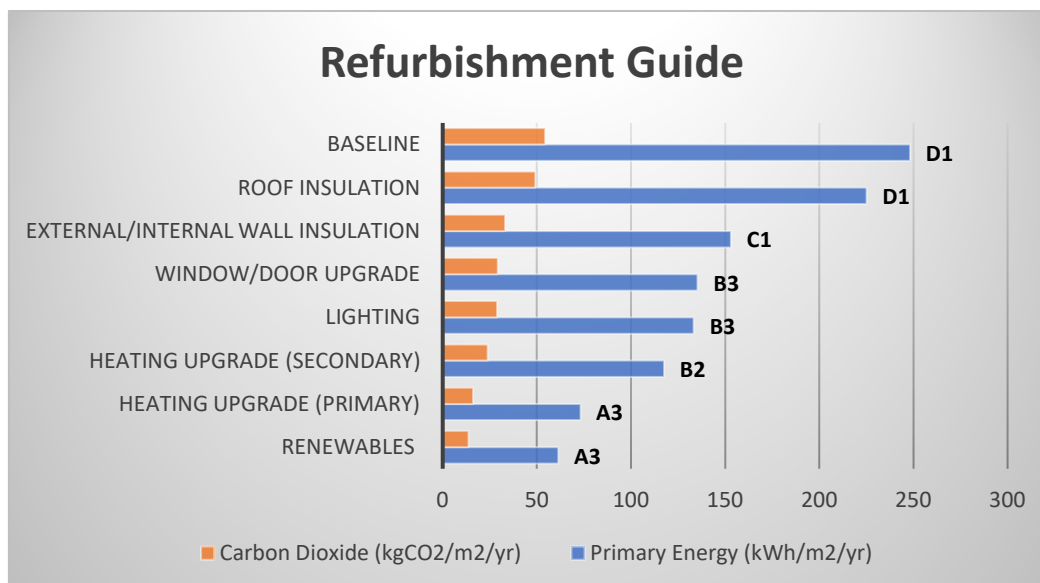
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m ² .K)
Walls	Other	N/A	2.1
Roof	Pitched Roof insulated at ceiling	100mm-150mm	0.26 - 2.3
Floor	Suspended Floor	Unknown	0.56
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 Combi boiler, primary pipework uninsulated	Mains Gas	91%
Secondary Heating System	Open fire	Mains Gas	30%
Domestic Hot Water	Heated with Primary heating system		
Cylinder	None - Comi boiler		
Controls	Programmer , 2x stats and TRV's		

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 (248.27)	Current Emissions (54.33)	Current BER (D1)
Roof insulation	Loftwool Insulation top-up to achieve minimum 300mm across all roof area.		0.13	225.15	49.17	D1
External/Internal Wall Insulation	Install Wall Insulation (internal or External), thickness -100mm		0.3	153.05	33.11	C1
Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units		1.2	135.38	29.17	B3
Lighting	Install energy efficient light bulbs (LEDs)		N/A	133.3	28.81	B3
Heating Upgrade (secondary)	Install a closed stove		N/A	117.48	23.84	B2
Heating Upgrade (Primary)	Air to water heat pump, 6-8kW, two separate heating zones and controller.		N/A	73.12	16.12	A3
Renewables	Install 1.2 kWp Solar PV system		N/A	61.34	13.8	A3

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Estimated Costs Summary		
Measures	Estimated Costs (€/m ²)	Estimated Total Costs (€)
Roof Upgrade	15 - 20	€ 1,765
Wall Insulation	90-140	€ 14,841
Window/Door upgrade	250 - 350	€ 12,436
Lighting	20/fitting	€ 540
Heating Upgrade (Secondary)	3,500 (System)	€ 3,500
Heating Upgrade (Primary)	12,500 (System)	€ 12,500
Solar PV	2,400 (1.2 kWp System)	€ 2,400
Total		€ 47,982
Total Cost to Homeowner including One Stop Shop Grant		€ 20,382

Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
A3	186.93	28,090	€ 2,528	8

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