

ENERGY AUDIT REPORT

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



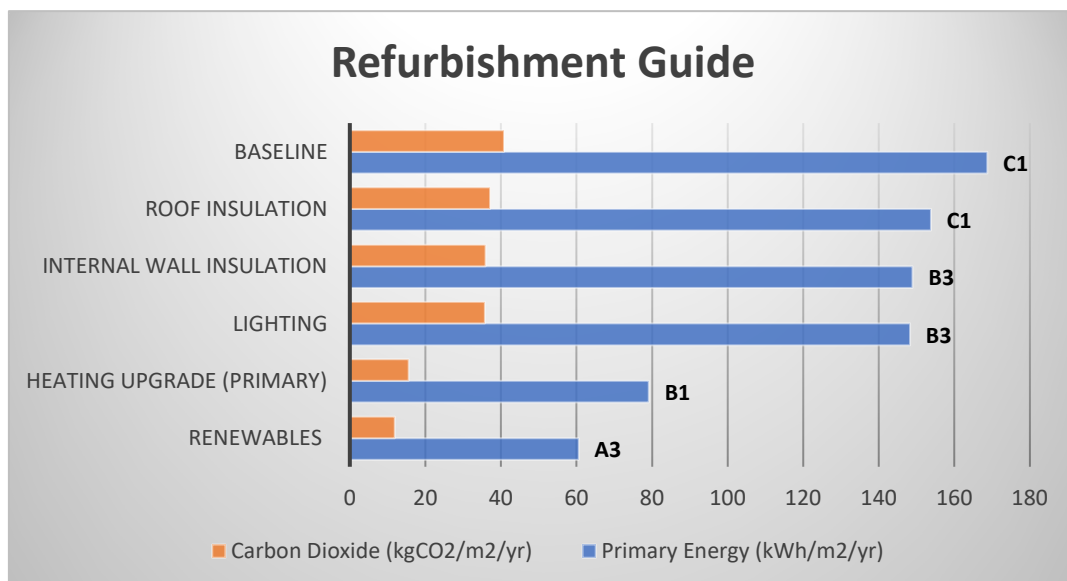
Greystones/Delgany, County Wicklow

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)
Roof insulation	Loftwool Insulation top-up to achieve 300mm-400mm across all roof area.	0.13	153.8	37.1	C1	
Internal Wall Insulation	Upgrade uninsulated walls (internal), thickness 50mm (% wall is already upgraded)	0.25	148.94	35.9	B3	
Lighting	Install energy efficient light bulbs (LEDs)	N/A	148.24	35.76	B3	
Heating Upgrade (Primary)	Air to water heat pump, 4-6kW, two separate heating zones and controller.	N/A	79.14	15.56	B1	
Renewables	Install 1.2 kWp Solar PV system	N/A	60.58	11.91	A3	

ENERGY AUDIT REPORT



Estimated Costs Summary		
Measures	Estimated Costs (€/m ²)	Estimated Total Costs (€)
Roof Upgrade	15 - 20	€ 1,733
Wall Insulation	90-140	€ 7,605
Lighting	20/fitting	€ 200
Heating Upgrade (Primary)	12,500 (System)	€ 12,500
Solar PV	2,400 (1.2 kWp System)	€ 2,400
Total		€ 24,438
Total Cost to Homeowner including One Stop Shop Grant		€ 10,338

Savings Summary				
BER Rating	Energy Savings (kWh/m ² /yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)	Simple Payback, including Grant Funding (years)
A3	108.14	12,493	€ 1,124	9

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