

## ENERGY AUDIT REPORT

House No.7 - Detached House - 2004 - Block (Unknown) Construction - 115.38m<sup>2</sup> (1241ft<sup>2</sup>)



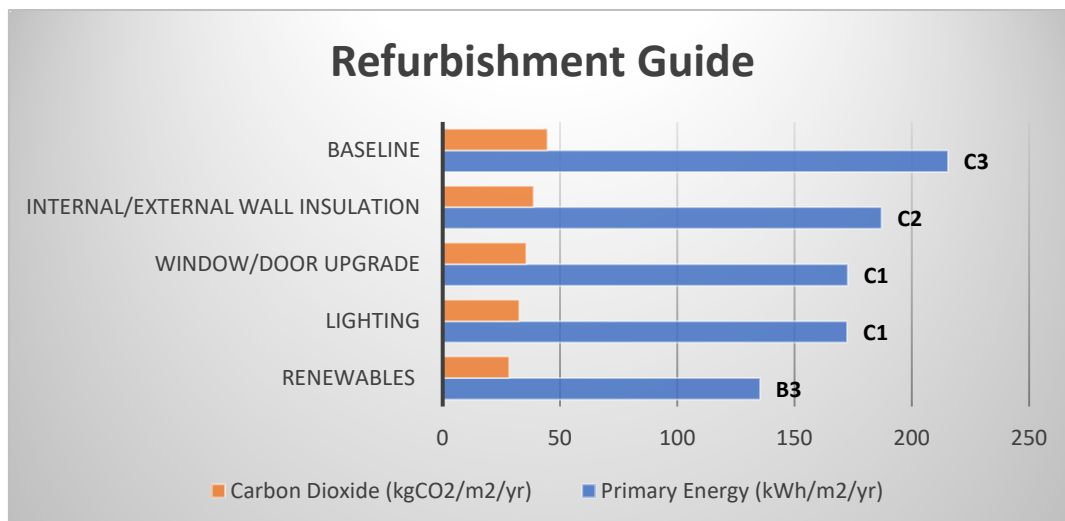
Greystones/Delgany, County Wicklow

Existing Building Details			
Building Elements		Insulation Thickness (mm)	U-Value (W/m <sup>2</sup> .K)
Walls	Other	50mm-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 <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 (215.42)	Current Emissions (44.62)	Current BER (C3)
Internal/External Wall Insulation	Install Wall Insulation (internal or External), thickness -100mm	0.3	187.03	38.69	C2	
Window/Door Upgrade	Replace existing glazing with Double/Triple glazed,(low E) units	1.2	172.68	35.69	C1	
Lighting	Install energy efficient light bulbs (LEDs)	N/A	172.45	32.65	C1	
Renewables	Install 2.4 kWp Solar PV system	N/A	135.27	28.34	B3	

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Estimated Costs Summary		
Measures	Estimated Costs (€/m <sup>2</sup> )	Estimated Total Costs (€)
Wall Insulation	90-140	€ 22,120
Window/Door upgrade	250 - 350	€ 6,192
Lighting	20/fitting	€ 300
Solar PV	2,400 (2.4 kWp System)	€ 4,800
<b>Total</b>		<b>€ 33,412</b>
<b>Total Cost to Homeowner including Individual SEAI Grants</b>		<b>€ 23,612</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	80.15	9,248	€ 832	28

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