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ENERGY AUDIT REPORT

Semi Detached Home - 1990 - - 133.17m² Current BER - D2 - Energy Use 272.25 kWh/m²/yr - Total Energy Use: 36,256 kWh/yr

31	Existing Building Details				
		Building Elements	U-Value (W/m².K)	Heat Loss (AU) [W/K]	
	Walls	300mm Cavity	0.60	57.60	
	Roof	Pitched Roof – Insulated on Ceiling	0.49	14.29	
	Roof	Pitched Roof – Insulated on Ceiling	0.40	20.80	
	Ground Floor	Solid Floor	0.48	38.96	
	1st Floor	Non-Heat Loss Floor	0	0	
	Door	Solid Exposed Door - Rear	3.00	6.09	
	Windows	Double-Glazed Air-filled X 3	3.10	342.01	

Existing Heating Characteristics					
Heating System		Energy	Efficiency (%)		
Primary Heating System	Oil boiler, primary pipework insulated	Oil	70%		
Secondary Heating System	Open Fire	Manufactured Smokeless Fuel			
Domestic Hot Water	Heated with Primary heating system and immersion	Oil	70%		
Cylinder	Cylinder with manufactured jacket (30mm)				
Controls	Radiator Controls				

	Domestic Retrofit Guidelines (Step by Step)							
	Proposed Interventions	Energy saving (kWh/m2/yr)	Revised energy rating (kWh/m2/yr)	Revised BER Rating	Annual energy saving (kWh/yr)	CO2 savings/yr (kg)		
1	Upgrade Existing Windows to Achieve Minimum U-Value of ≤0.73 W/m²K	38.94	233.31	D1	5,185.64	1270		
2	Upgrade Existing Rear Door to Achieve Minimum U-Value of ≤1.40 W/m²K	2.52	230.79	D1	335.59	82		
3	Upgrade Existing Cavity Wall to Achieve Minimum U-Value of ≤0.20 W/m²/K	29.78	201.01	C3	3,965.80	972		
4	Install 300mm Insulation on Flat Ceiling	18.84	182.17	C2	2,508.92	615		
5	Install Air To Water Heat Pump (HP) - Upgrade Heating Controls & Hot Water to Full Time & Temperature Control	107.50	74.67	A3	14,315.78	3507		
6	Install 2kW Photovoltaic system	28.34	46.33	A2	3,774.04	925		
	Overall kWh/m2/yr Savings Potential	225.92						
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	Heat Loss Indicator post works (HLI)	1.62	W/K					
	BER Uplift	225.92	kWh/m2/yr,					

^{*}Upgrades 1-5 are required before a Heat Pump (HP) can be installed. The Heat Loss Indicator must be ≤2 to qualify for grant assistance for HP installation

	Estimated Costs Summary					
Measures Estimated Costs (€/m²)/Unit		Estimated Total Costs (€)				
1	Windows Upgrade	€495.00	€14,850.00			
2	Doors Upgrade		€2,200.00			
3	Wall Insulation Upgrade		€23,495.00			
4	Roof Insulation Upgrade		€1,845.00			
5*	Heating Upgrade (Primary)	(System)	€18,700.00			
6	Install 2kW PV system	2KW (System)	€5,500.00			
Total to	Total to achieve A2		€65,490.00			
VAT @	VAT @ 13.5%		€8,841.15			
Su	Subtotal		€74,331.15			
PΝ	PM Fee		€4,584.30			
<u>To</u>	tal Build Costs		€78,915.45			
	ESTIMATED SEAI Grant @ 30% for participation in BEC Scheme		€23,674.63			
Value of Energy Credits		€2,071.00				
	Total Cost to Homeowner including 30% Grant funding and Energy Credits		<u>€53,169.82</u>			

^{*}Minimum uplift required from Better Energy Community Grant Scheme

Savings Summary					
BER Rating	Energy Use (kWh/m²/yr)	Energy Savings (kWh/yr)	Cost Savings (€/yr)*	Simple Payback, including Grant Funding (years)	CO2 Savings (kg)
Current D2	272.25	()	0.00	-	
A3	32.33	30,087	€2,758.98	19.3	7371

^{*}Based on Home Heating oil replacement @€0.0917/kWh