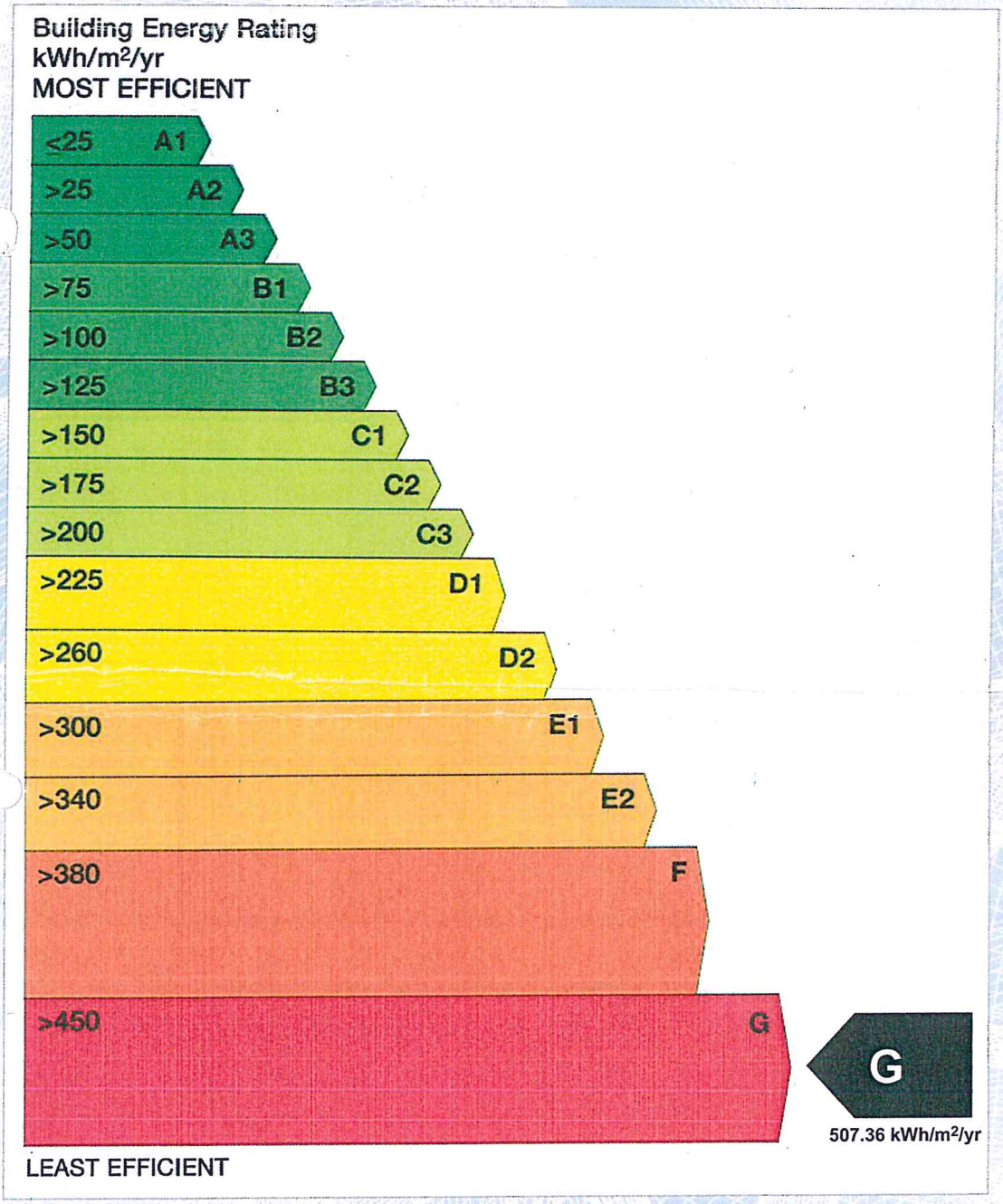
Building Energy Rating (BER)

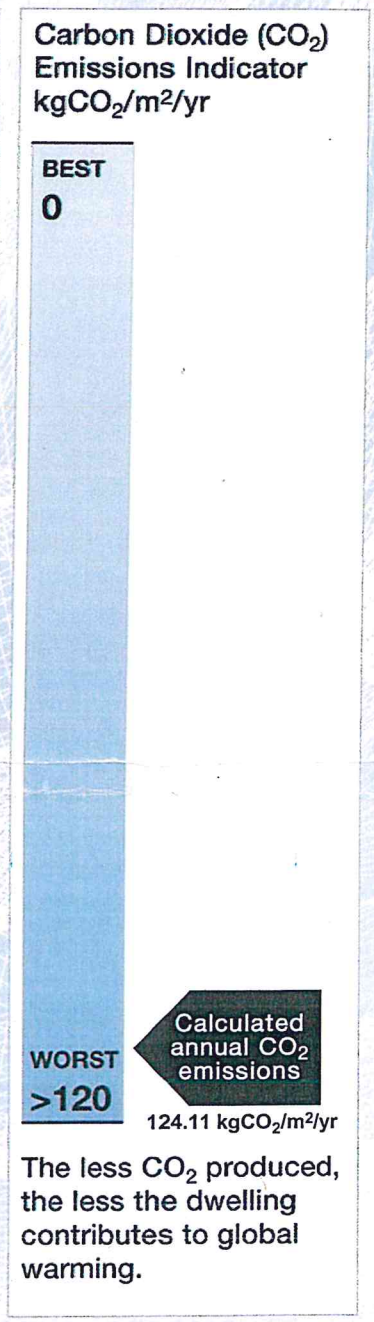
BER for the building detailed below is: G

Address	APT 1 3 O'BRIEN STREET TIPPERARY TOWN TIPPERARY CO. TIPPERARY
BER Number	100610286
Date of Issue	12/05/2009
Valid Until	12/05/2019
Assessor Number	103590
Assessor Company No	103590

The Building Energy Rating (BER) is an indication of the energy performance of this dwelling. It covers energy use for space heating, water heating, ventilation and lighting, calculated on the basis of standard occupancy. It is expressed as primary energy use per unit floor area per year (kWh/m^2/yr).

'A' rated properties are the most energy efficient and will tend to have the lowest energy bills.





The less CO_2 produced, the less the dwelling contributes to global warming.

IMPORTANT: This BER is calculated on the basis of data provided to and by the BER Assessor, and using the version of the assessment software quoted above. A future BER assigned to this dwelling may be different, as a result of changes to the dwelling or to the assessment software.

DEAP Version: 3.0.0

sei SUSTAINABLE ENERGY IRELAND | *Energy Performance of Buildings Directive*

Building Energy Rating (BER)

ADVISORY REPORT

Energy use in our homes is responsible for more than a quarter of Ireland's total CO_2 emissions. Reducing energy use will save you money and is good for the environment. This report provides advice on improving your Building Energy Rating, reducing your energy usage and costs, while improving the comfort and condition of your home.

Report Date: 12/05/2009

Assessor: Bill Condon
Address: APT 1 3 O'BRIEN STREET
TIPPERARY TOWN
TIPPERARY
CO. TIPPERARY
BER: 100610286
MPRN: 10302284274

Ventilation
General Operational Advice.
Care should always be taken to ensure a sufficient level of ventilation to maintain fresh air levels in each room. For health and safety reasons it is important to ensure an adequate air supply to combustion appliances e.g. gas fires. If draught stripping is damaged at any time make sure to replace it.

Chimneys.
This dwelling has no chimneys.

Fan & Vents
This dwelling has one or more fans/vents.
Fans and vents increase heat loss in a dwelling by allowing heated air to escape but can be important in ensuring adequate ventilation. If there is no cover on the inside of the vents, installing controllable vent covers will allow you to control the air flow through the vents, and so can help reduce heat loss. All changes to ventilation must comply with relevant Building Regulations requirements, particularly Part F (Ventilation) and Part J (Heat Producing Appliances).
Cost: Low **Impact:** Low

Draught Lobby
This dwelling has no draught lobby.
Open doors and air gaps around doorways are a source of heat loss in a dwelling. The construction of draught lobbies on the external doorways would reduce these heat losses. All changes to ventilation must comply with relevant Building Regulations requirements, particularly, Part F (Ventilation) and Part J (Heat Producing Appliances).
Cost: High **Impact:** Low

Suspended wooden floor
This dwelling has a solid floor.

Draught Stripping
This dwelling has less than 100% draught stripping.
Fitting draught proofing around external windows, doors, attic hatches, pipes, wires, etc. which are not draught stripped will reduce unwanted ventilation which causes heat loss and draughts in the dwelling. This can also prevent warm moist air entering the roof space which can lead to possible condensation and rot. Letter boxes can be fitted with a letter box cover to reduce draughts. All changes to ventilation must comply with relevant Building Regulations requirements, particularly Part F (Ventilation) and Part J (Heat Producing Appliances).
Cost: Low **Impact:** Low

Ventilation System
This dwelling has natural ventilation.

Building Elements

Floors
General Operational Advice.
Floors can be a source of significant heat loss and dampness in a dwelling. Installing insulation will reduce this heat loss, and so reduce the energy demand of the dwelling. Floors with a heat loss greater than the current building standards (with a U-Value > 0.25) could be improved. It should be noted that installing floor insulation generally involves a considerable amount of work. The floor space must also have adequate ventilation to prevent dampness. All changes to ventilation must comply with relevant Building Regulations requirements, particularly Part F (Ventilation) and Part J (Heat Producing Appliances).

There are floor areas in this dwelling with a U-Value of <1 and >=0.6.
Cost: High **Impact:** Medium

Roofs
General Operational Advice.
Proper insulation will help retain valuable heat and improve overall comfort levels. If insulation is disturbed or damaged at any time, e.g. in attic space, make sure to restore or replace it.

There are areas of flat roof in this dwelling with a U-Value of >=1.5.
Cost: High **Impact:** High

There are wall areas in this dwelling with a U-Value of >=1.1.
Cost: High **Impact:** High

There are wall areas in this dwelling with a U-Value of <0.6 and >0.27.
Cost: High **Impact:** Low

Windows
Much heat can be lost from dwellings through their windows as they have relatively poor thermal insulation compared to other elements of the building. Installing energy efficient windows such as low-E double glazing helps to retain heat and improves comfort through elimination of cold window surfaces and associated downdraughts and condensation. The use of shutters, lined curtains and blinds can improve heat retention at night and further reduce downdraughts. Windows with a heat loss greater than the current building standards (i.e. have a U-Value > 2) could be improved. However, it should be noted that best benefits are achieved through the upgrade from single to low E double or triple glazing. Note that single glazing can also be improved by adding secondary glazing rather than changing to proprietary double glazing.

There are window areas in this dwelling with a U-Value of <4 and >=2.7.
Cost: High **Impact:** Medium

There are door(s) in this dwelling with a U-Value of <4 and >=2.7.
Cost: Medium **Impact:** Low

Lighting
General Operational Advice.
CFLs use 20% of the energy used by typical incandescent bulbs to give the same amount of light. A 22 Watt CFL has the same light output as a 100 Watt incandescent. LED lights use less than 10% of the energy required for corresponding tungsten lights. Low energy lighting will give highest savings in rooms that are most often used.

Lighting - low energy bulbs
The low energy lighting in this dwelling is <50%.
Replacement of traditional light bulbs (tungsten or incandescent) with energy saving bulbs (LED or CFL) can reduce lighting costs significantly. They also last considerably longer than ordinary light bulbs. Consider replacing traditional light bulbs with energy saving bulbs.
Cost: Low **Impact:** Medium

Main Heating System
General Operational Advice.
You should have your boiler professionally serviced at least once per year. A clean and serviced appliance will operate more economically and will have a longer service life.

Thermal Solar Panels
This dwelling has no solar water heating.
Solar Panels, also known as "collectors", can be fitted to a building's roof. They use the sun's heat to warm water, or another fluid, which passes through the panel. The fluid is then fed to a heat store (e.g. a hot water tank) and helps provide hot water directly or can provide a source of hot water for the central heating system in the dwelling. Solar panels work throughout daylight hours, even if the sky is overcast and

there is no direct sunshine. Solar panels can also be used to meet some space heating demand. Ideally the panels should be located on an unshaded, south facing roof at a tilt angle of 30°- 45° to the horizontal. Space will be need to accommodate an appropriately sized cylinder for the system and a thermal mixing (anti-scald) valve should also be installed.
Cost: High **Impact:** Medium

PV Solar System or Microturbine
This dwelling has no microturbine or Photo Voltaics (PV).
A solar photovoltaic (PV) system is one which converts light directly into electricity via panels placed on the roof with no waste and no emissions. This electricity is used throughout the home to supplement the electricity purchased from an energy supplier. Ideally the panels should be located on an unshaded, south facing roof at a tilt angle of 30°- 45° to the horizontal. Batteries can be used to store electricity from the PV array or wind turbine. However, this increases the installation and equipment cost as well as maintenance cost. A Micro-windturbine is a small turbine placed on the property which uses wind to generate electricity. The electricity is used throughout the home to supplement the electricity from an energy supplier. The turbine should not be subject to wind shelter. To be effective, the turbine should be at a height well clear of nearby roofs and other obstructions.
Cost: High **Impact:** High

General Energy Advice

Appliances
New kitchen appliances carry energy rating labels which rate energy efficiency on a scale of A to G. When buying new appliances look for at least A rated products which are more energy efficient and cost less to run. Do not under or overload appliances such as dishwashers and washing machines. For washing machines, a 40°C rather than a 60°C wash cycle cuts electricity use by approximately a third. (Modern washing powders and detergents can work equally effectively at lower temperatures). Defrost your freezer regularly to save energy and extend the operating life. Equipment on standby uses up to 20% of the energy it would use when fully on. When an appliance is not in use, turn it off fully.

Carbon dioxide Emissions
Using one unit of electricity in your house releases up to three times as much CO_2 as one unit of gas. The use of renewable technologies (such as solar water heating) avoids the harmful greenhouse gas emissions associated with energy production.

Lighting
Avail of natural daylight whenever possible and avoid leaving electric lights switched on in unoccupied rooms. All lighting lamps carry an energy label similar to that on appliances (i.e. an A to G label) so always choose the most efficient to suit your particular needs.

Further advice on improving the energy efficiency of your home is available from Sustainable Energy Ireland www.sei.ie

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