Building Energy Ratings (BERs)

The energy performance of buildings in Ireland is measured and expressed by way of a Building Energy Rating (BER) certificate that categorises and ranks buildings according to their energy consumption per square metre and associated CO2 emissions. BER certificates range from G to A1 on a 15-point scale, where the A-rated properties are the most energy efficient. In 2013, approximately 7% of homes had a rating in the range of A to B2, 34% had a B3 to C3 rating, 22% were D rated, and 36% were rated E to G.[i] At an average annual housing growth rate of 0.9% and an obsolescence rate of 0.8% in 2013 declining to 0.25% in 2050, there will be over 1 million new residential properties in Ireland by 2050. If all new builds are constructed to a minimum standard of B2, with no further retrofits of existing buildings, 50% of homes will be rated A to B2 in 2050.

Trajectory 1

Allows for existing A and B rated buildings, plus all new builds up to 2050. Some 50% of buildings have a rating in the range A to B2 by 2050.

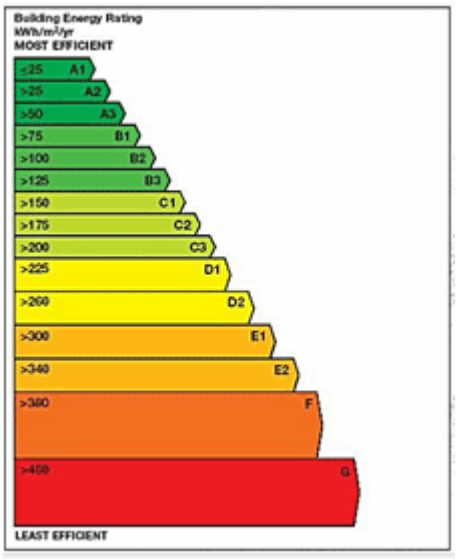


Figure 6: Building Energy Rating Scale from A1 to G in kWh/m^2/yr

Trajectory 2

Trajectory 2 assumes that all new builds and continued retrofits of existing buildings leads to 20% of homes having a B2 rating or higher in 2020, rising to 60% of homes in 2050.

Trajectory 3

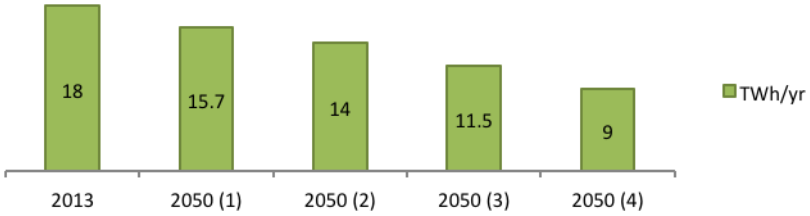
According to Trajectory 3, some 75% of homes have B2 energy rating or higher in 2050, 15% have a rating between B3 and D2, and 10% have an E rating or lower.

Trajectory 4

Trajectory 4 assumes that 45% of homes will be B2 rated or higher in 2030 and 90% of homes will have a B2 rating or higher in 2050. Certain buildings such as protected structures remain in lower categories. Retrofits gradually increase over time driven by lower costs and higher building standards. There will be 40,000 to 50,000 home retrofits between 2040 and 2050.

	2013	2050	2050	2050	2050
Number of homes (million)	1.67	T.1 2.35	T.2 2.35	T.3 2.35	T.4 2.35
BER rating:					
A-B2	7%	50%	60%	75%	90%
B3-C3	16%	9%	7%	4%	2%
C2-C3	19%	10%	8%	5%	2%
D	22%	12%	9%	6%	2%
E, F and G	36%	19%	15%	10%	4%

Figure 7: Residential space heat demand (TWh/yr)



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