

Nathan Bushell explains why Glass Times' Window Energy Rating supplement couldn't have come at a better time. **Everything** you always **wanted to know about WERs** <sup>\*</sup>  
**(\*but were afraid to ask)**

Welcome to Glass Times' 'Guide to Window Energy Ratings'. Never has there been a better time for an informed supplement such as this. Over the last couple of years there has been an immense amount of interest shown in the Window Energy Ratings scheme, as fabricators and installers weigh up the shrinking traditional replacement window industry with the new routes to market.

There can be no doubt that anything that cuts energy usage, saves the householder money, and comes wrapped in a neat environmentally friendly gift box is going to have the edge over other selling techniques. Furthermore, WERs comes endorsed by the Building Regulations, GGF, and the Energy Savings Trust among others. Only the most cynical consumer wouldn't have faith in this scheme.

It appears to me, however, that there is a yawning chasm between those on the bandwagon, and those figuring out how to jump on. For the fabricator who is balancing his books with rising overheads, unsympathetic bank managers and difficult trading conditions, the idea of summoning up enthusiasm for WERs may not be that appealing. Similarly, many installers would be wary about swapping tried and tested selling techniques for something a little less tangible.

For the fabricator or installer who is interested in what WERs has to offer, but finds the concept and process daunting (and you are not alone), then

this supplement should go a long way towards putting things into perspective. Equally, for those who are convinced that WERs is nothing more than a gimmicky marketing trick, then this supplement may help to convince you otherwise.

Consider the approach that Liniar – a new entrant to the pvcu profile market – has taken. The company decided from the outset that it would produce a system that would make it easier for fabricators to sell in today's greener environment (including making lead-free profile), which managing director Roger Hartshorn admitted "is a great selling point".

Liniar also designed-in a pvcu screw retainer, which replaces two-thirds of a window's steel reinforcement. This makes it more thermally efficient and easier to achieve an A rating. However, Roger conceded that "offering Window Energy Ratings and lead-free products will become more important as fabricators recognise the benefits of selling them. They are great differentiators in a tough market."

Another systems company that offers lead-free profile is Selecta. Sales director Mark Richmond believed that "fabricators need to offer energy efficient products that consumers can associate with", suggesting that going down the 'green' route is more than just offering thermally efficient products. Mark also said that this message had obviously got

across since 51 fabricators had switched over to Selecta in the last year.

On the fabricating side, Tradelink's Jim Moody said that when he took the company down the Window Energy Rating route would give it "a foothold in what would clearly be a new and important market". This philosophy encouraged the company to increase the performance of its new Heatgard IGUs. "The intention was always to offer a product with unrivalled performance so our customers could make the most of the opportunities this new rating system would bring," Jim said. Deciding whether or not this approach has worked, Jim said that the company's sales results have shown an increase of 8% in 2008, with sales of Heatgard up 19%. "To increase sales you have to work hard at understanding market developments as they happen and invest to develop the highest performing products to keep your customers ahead of changing demands," Jim concluded.

Another company which is winning the battle with the recession is Crystal Direct, which has seen increases of 17% and 23% in January and February when compared to the same period last year. Chairman Martin Randall put this down to offering energy rated windows. "Changes to building regulations in 2010 means that installations of C rated windows in new-build will become the norm, and I expect the trend will follow

through into the replacement market," he said. "It therefore made sense to introduce energy efficient windows to our range and give installers the opportunity to use as a sales tool to differentiate themselves and offer homeowners best value for their money."

Another fabricator giving its installers an edge over their competitors is Sash UK. Sales director designate Greg Kane said that out of all the 'badges' that exist on the market, "WERs is the one that everyone is talking about". However, it seems that many people don't actually know what it stands for. "There is still a lot of confusion about what WERs actually is," Greg said. "One guy said to me the other day 'it's warm edge technology isn't it?'. That may form part of it, but it really isn't understanding it, and there are still a lot of companies which aren't asking for it. Personally, I hope companies take their time registering their products for WERs – at the moment it gives me an advantage I don't want them to have."

So, on that note, it's probably safe for me to reiterate that 'never has there been a better time for an informed supplement such as this'. However, while you read and digest this supplement, maybe it is worth keeping an eye open for the 'next big thing'. After all, once everyone has their products energy rated, there'll be nothing to distinguish you from the crowd.

# Window

Giles Willson, director for British Fenestration Rating Council (BFRC), provides a step-by-step guide to explain how you can gain an energy rated window, and how this can be used in practice.

# Energy Ratings

the correct and simple method for compliance

## what is the window energy rating scheme?



BFRC is the UK's national system for rating the energy efficiency of windows and is recognised within the Building Regulations as a method to show compliance for your replacement windows installed. WERs use a consumer-friendly traffic-light style 'A-G' ratings guide similar to that used on white goods (such as fridges, freezers, washing machines etc). This ratings label can be used by consumers to make more informed choices about the energy efficiency of the windows they are looking to purchase.


Already consumers use the A-G ratings system to select white goods – it is an easy to understand and highly recognisable label. As this label begins to appear on more and more window products it will become the touchstone for consumers looking to make energy-efficient choices. Those products displaying a label will have a definite advantage over those who are not part of the scheme.

The window energy rating is for the complete window, not just the frame or the insulating glass unit. You cannot make claims that you have an A rated frame or an A rated unit, only complete windows registered with BFRC can fully claim to have an A-G window energy rating.

## Energy Window

Energy Windows Ltd  
XYZ 68/abc

	
<b>Energy Index (kWh/m<sup>2</sup>/year)</b> <small>(Energy Index certified by BFRC and based on UK standard window. The actual energy consumption for a specific application will depend on the building, the local climate and the indoor temperature)</small>	<b>- 14</b>
<b>The climate zone is:</b>	<b>UK</b>
<b>Thermal Transmittance (U<sub>window</sub>)</b> <b>Solar Factor (g<sub>window</sub>)</b> <b>Effective Air Leakage (L<sub>factor</sub>)</b>	1.7 W/m <sup>2</sup> .K 0.50 0.10 W/m <sup>2</sup> .K


[www.bfrc.org](http://www.bfrc.org)

**This label is not a statutory requirement. It is a voluntary label provided as a customer service to allow consumers to make informed decisions on the energy performance of competing products.**

Window energy ratings measure the energy performance of a window and take into account the thermal performance for retaining the heat in the building, the solar heat gain and the air leakage loss through the window.

The scheme uses a standard window size 1.48m x 1.23m, with a central mullion, one opening and one fixed light. This is used to enable different products be compared with each other, if different sizes were used we would achieve different energy performance based on the size of the window rather than the components.

The thermal performance value is measured in kWh/m<sup>2</sup>/year, this shows the heat-loss per metre of glazing over a year as well as the solar gain from the sun through the glass. It also enables the Glass and Glazing Federation's energy calculator to work out the financial, CO<sub>2</sub>, and carbon savings for a specific house, using actual window size and fuel used to heat the property.

The Energy Saving Trust has accepted the results of the GGF calculator, which can be found at the GGF website [www.ggf.org.uk](http://www.ggf.org.uk)

## how do I gain window energy rating (wer) for my windows?

The window manufacturer needs to have either a

simulation undertaken or hot box testing. If the simulation route is chosen, the manufacturer should contact one of the 35 registered BFRC simulators (details available on the BFRC website [www.bfrc.org](http://www.bfrc.org)). The simulator will need to have a copy of the drawings for your window, along with a list of the components used; a simulation is undertaken, the

results can be discussed along with a discussion on how a window performance can be improved, this can range from a complete re-design to minor modifications, which are easily re-worked into the calculation to provide an amended WER.

Once a manufacturer is happy with their product a BFRC independent agency will need to access the company to ensure they have the ability to manufacture the window. Depending on the success of this visit, the window can then be registered with BFRC which provides the label and registers this on its website.

no minor modifications or component substitutions can be made, instead a complete retest is required.

If a manufacturer wishes to change a component from the originally registered window, they will need to go back to its simulator to check on the effect this will have on the energy performance of the window. The advantage of the simulation route is, component changes can be undertaken, often without having to calculate a completely new simulation (depending on the changes being made). The independent agency would have to check that the changes are implemented; this could be by a paperwork trail depending on the changes.

Finally, BFRC needs to be updated, and it can then produce a replacement licence and update the BFRC website.

This process means a more accurate result is determined for the whole window and not just the unit, therefore we are making major advances with improving the thermal performance of replacement windows being fitted, with minimal additional costs.

**how do I use the label?**

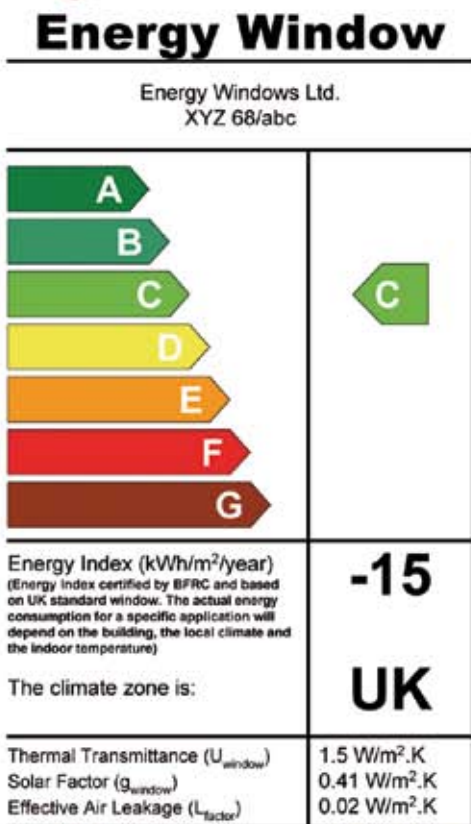
The BFRC has produced a marketing tool kit for all the registered companies, this comprises four main elements:

**The BFRC Label Usage Guidelines.** This is a set of guidelines on how to use the BFRC label with examples of how to display it on your marketing materials. It also provides you with the BFRC label in various formats to download and use.

**The BFRC Marketing Guidelines.** This is a 'how to' guide to marketing your new status as registered label users, and provides you with advice on how to promote EEWs to your customers with template materials to make it easy.

In summary, the process is window simulation, the site assessment and the formal registration with BFRC to gain your unique licence and registration on the BFRC website.

If a manufacturer decides to go for a hot box test, this requires the physical product to be tested – this produces the rating value. Once a hot box test is determined, an independent agency would need to be used to make a site visit and then registration with BFRC. The cost for this route compared with using a registered simulator is approximately the same, the main difference is, you send a product for test and that is the only result achievable,



[www.bfrc.org](http://www.bfrc.org)

This label is not a statutory requirement. It is a voluntary label provided as a customer service to allow consumers to make informed decisions on the energy performance of competing products.



**Buyers' Guide.** This is a glossy informative booklet that you can give to your customers that explains simply and clearly how the BFRC label works, what energy efficient windows are and why they should buy them. This is an invaluable sales tool.

**The BFRC Catalogue.** This is an on-line catalogue of marketing materials that will help you promote your business. To access the catalogue, visit the BFRC website at [www.bfrc.org](http://www.bfrc.org) – click on the 'Trade' section and log-on as a registered user.

### where do I find the register of bfrc energy rated windows?

The details of all the BFRC registered energy efficient windows can be found on the BFRC web site [www.bfrc.org](http://www.bfrc.org). The search facilities allow you to find rated product sorted by:

- Energy Ratings
- Framing material
- Window design
- County
- Town, or nearest suppliers to your postcode

The web site provides details of the registered window company for the consumer to make contact. In addition, a copy of the specific energy rating label – this shows the A-E rating as well as the actual thermal performance figure, with the window U-value, solar gain and air leakage rate for the window.

### promotion of the bfrc scheme

The British Fenestration Rating Council is launching a consumer and trade focused marketing campaign fronted by eco-campaigner and TV presenter James Strawbridge to help grow the market for BFRC registered energy efficient windows (EEWs).

The campaign will tell UK householders about the benefits of the BFRC's rated EEWs and the BFRC labeling scheme. James will be telling

**“We are making major advances with improving the thermal performance of replacement windows being fitted, with minimal additional costs.”**

householders to 'look for the BFRC label'. The campaign is already appearing in national and regional magazines and newspapers.

The BFRC website ([www.bfrc.org](http://www.bfrc.org)) has been redesigned to reflect this campaign and features James reinforcing the message for homeowners to fit BFRC registered EEWs in the UK. The revamped site also includes all the information that consumers need to make an informed choice when they are having new windows fitted, as well as a directory of BFRC registered businesses – enabling them to select a suitable window installer in their area.

The revamped website will also contain all the information that window companies need to start the registration of their products, plus marketing support and technical information for businesses already registered on the scheme.

A key part of the campaign is the support BFRC is giving to registered businesses to help them market their EEWs and associated A-G energy efficiency labels. This effort will substantially increase

the benefits that window companies derive from being part of the scheme. A comprehensive support package will include supply of consumer leaflets, posters and point of sale materials, and a marketing tool-kit exclusively available for registered businesses, that will help companies to maximize the marketing and sales opportunities.

Since June 2006 when the GGF took over the BFRC, there has been a six-fold increase in registered businesses with more window companies registering products daily.

### regulatory requirements

For all regions of the United Kingdom, there is a thermal performance requirement for all replacement windows installed. One method for demonstrating compliance is by the window energy rating scheme. The following show the current different requirements for each region:

#### **England and Wales Approved Document L1B table 2 windows, roof windows and rooflight.**

New fittings in extensions: U-value 1.8W/m<sup>2</sup>K, or WER band D, or centre-pane U-value 1.2W/m<sup>2</sup>K.

Replacement fittings in existing dwellings: U-value 2.0W/m<sup>2</sup>K, or WER band E, or centre-pane U-value 1.2W/m<sup>2</sup>K.

#### **Scottish Building Standards Agency Technical Handbook section 6.**

New and replacement windows, doors and rooflights: U-value 1.8W/m<sup>2</sup>K, or WER band D, or centre-pane U-value 1.2W/m<sup>2</sup>K.

#### **Northern Ireland Department of Finance and Personnel Technical Booklet F1 table 3.1.**

New fittings in extensions: U-value 1.8W/m<sup>2</sup>K, or WER band D, or centre-pane U-value 1.2W/m<sup>2</sup>K.

Replacement fittings in existing dwellings: U-value

2.0W/m<sup>2</sup>K, or WER band E, or centre-pane U-value 1.2W/m<sup>2</sup>K.

### future building regulations

The Department for Communities and Local Government recently produced a document called Building Regulations: Energy efficiency requirements for new dwellings – a forward-look at what standards may be in 2010 and 2013.

This document concentrates on new-build only, however, it does show the intention to improve by 25% the carbon emissions for new buildings. This will demand far more energy efficient products to be used and installed. It therefore makes logical sense that refurbishment and replacement windows will require a similar improvement in 2010 and 2013, this will be an ideal opportunity for higher-rated windows to be specified as being the norm to comply with regulations.

For England and Wales the consultation document for thermal performance of buildings, Approved Document L, is due to be launched. This consultation will be for three months, and the published Approved Document is due out towards the end of 2009 with an implementation date in 2010.

It is anticipated that Window Energy Ratings will appear within the revised regulations as a route for installers to comply with regulations.

### energy saving trust (est) - energy saving recommended

All registered windows which are band C or higher rated can be registered for free with the EST to gain the ESR logo. Any registered business needs to contact the EST for more information.

If you require additional information on the BFRC window energy rating scheme, please look at the web site [www.bfrc.org](http://www.bfrc.org) or telephone: 020 740 39200.