

ENVIRONMENTALLY
FRIENDLY ROOF
ACCESSORIES

DECRA®

ROOFING SYSTEMS

ENERGY SAVING OPTIONS

Reduce the cost of running your home with Decra®'s essential guide to roof accessories



Using FREE natural light
How ventilation can reduce energy costs
Reducing air conditioning bills with Decra® Foil
Collecting FREE rainwater

6 EASY STEPS

to reduce the cost of running your home

Fletcher Building Roof Tile Group has put this guide together to help you plan to integrate energy saving products into your new home at the design stage. Just follow these six steps to reduce the cost of running your new home.

1 Planning & Design

Designing-in energy saving measures from the very start of a project is vital. You'll struggle to take full advantage of the energy saving solutions if they are added later.

Make sure your architect works with your Decra[®] roofing representative to include all the cost reducing products you want, and designs them into the building at the earliest possible stage.

2 Materials

Choose the right building materials and you're half way there. Decra[®] roofs, manufactured by Fletcher Building Ltd., can help reduce the amount of energy required to maintain a comfortable living environment.

3 Heat Reflection

Reflecting as much heat as possible away from the building helps to maintain a cooler temperature inside. Decra[®] roofing tiles combined with Decra[®] Foil can reduce air conditioning costs by up to 25%.

4 Natural Light

Aim to maximise the amount of daylight you use to light your home by using one or both of Decra[®] roof light products. Electric lighting can be responsible for up to 10% of your energy bills, so turning off lights makes a lot of sense, especially as sunlight is free!

5 Ventilation

Every house needs good ventilation. Not only will this help to reduce the internal temperature, and therefore reduce air conditioning costs, but expelling stale hot air and replacing with fresh air creates a healthier living environment.

Maximise the benefits of ventilation by using Decra[®] roof ventilation combined with Decra[®] Foil to reduce internal temperatures by up to 5°C.

6 Save Water

Essential for life, yet not always accessible, clean fresh water is readily available by collecting rainwater. A true gift from heaven! Find out more on Page 6.

Getting It Right From The Start

The earlier you plan to include energy saving methods into your building project, the cheaper it will be. You'll also enjoy the maximum benefits and the savings that these products offer.



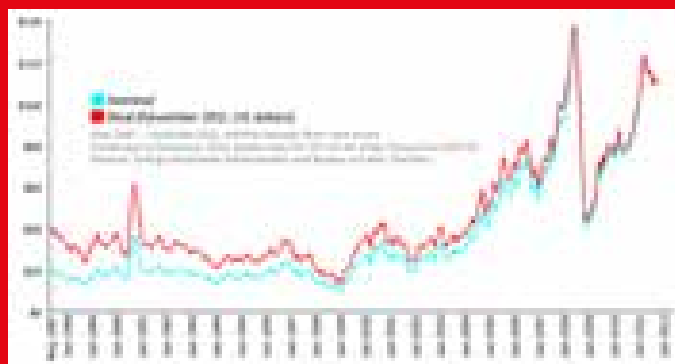
“Your new home won’t cost the earth, but it could help save it.”

Interested, but tempted to leave it a few years? Our advice is don't. Retro fitting any kind of energy saving product into your home once it's built and lived in will cost more and cause disruption to you and your family, not to mention the security

headache of having workmen in your family home. The beauty of the Decra® energy saving range is that it's all designed to fit with genuine Decra® roof tiles and easily installed at the same time as the roof by our trained installers. This meant that not only are you benefiting from the same superior quality that Decra® has built a global reputation on for over 50 years, but you only have to deal with one trusted source.

Choosing the right Materials

There's no doubt that energy reducing products are a must have on any new build, but what they are made from is often just as important as what they do. Many of the products contained in this guide are integrated parts of a genuine Decra® roof, and as such are made from the same materials. Central to this is the volcanic stone chip that coats Decra® roof tiles, vents, roof window surrounds and sun tunnel surrounds. This natural stone is quarried in New Zealand and where it has been formed over millions of years to produce the hardest resistance to rain, wind and essentially, the sun's harmful UV rays. This means that just like Decra® roof tiles, the products in this brochure won't change colour over time. To give you further piece of mind, all of the products shown here are continually tested in our own independent laboratories around the world to ensure that they perform.



Why you should act now

The price of oil has increased from around \$30 per barrel in 2002 to \$110 per barrel in 2012 - that's an increase of over 266% in just ten years! As the cost of extracting natural resources continues to rise, these costs will be passed onto the consumer who will see the proportion of their monthly income spent on energy bills continue to increase at a similar rate.

Slashing the cost of Air C

Air conditioning is one of the biggest costs of running a modern home; draining electricity and huge amounts of generator fuel. In fact, up to 42% of your energy costs could be for air conditioning alone! Luckily, Decra[®] have come up with two ways to dramatically reduce its cost.

Decra[®] Foil

In the same way as a mirror reflects light, Decra[®] Foil reflects 95% of heat and reduces the flow of heat by 70% - 80%. With Africa's hot climate, Decra[®] Foil is an effective barrier to heat entering the home.

Because some 60% - 70% of heat in a property is generated through the roof, Decra[®] Foil significantly reduces internal temperatures, which can help dramatically reduce the cost of air conditioning by up to 25%.

But Decra[®] Foil does much more. Manufactured from high-grade polished aluminium and reinforced fibreglass it acts as a barrier against moisture, water vapour, wind, dust and insects. It also contains fire retardant properties, reducing the risk of damage in the event of a fire.



Scenario	Internal Temperature	AC Load	Benefit
AIR CONDITIONING ON FULL POWER	28°C	Full	25% SAVINGS (Kw Hours of Air Conditioning)
FOIL AIR CONDITIONING ON 3/4 LOAD	28°C	3/4	25% SAVINGS (Kw Hours of Air Conditioning)
NO AIR CONDITIONING	35°C	None	MORE COMFORTABLE ENVIRONMENT
FOIL NO AIR CONDITIONING	30°C	None	MORE COMFORTABLE ENVIRONMENT

Survey Results
Our survey revealed that more than 30% of people aged 50 years and older avoid air conditioning.
Homes built with Decra[®] Foil instead can create a comfortable atmosphere.

REduces AIR CONDITIONING COSTS BY UP TO 25%

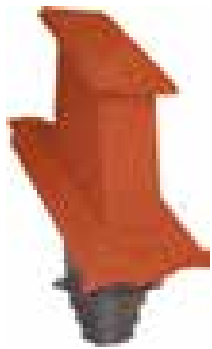
FOIL LAYERS:
 - Aluminium foil
 - Co-polymer film
 - Kraft paper
 - 3 way fibreglass scrim
 - Co-polymer film
 - Aluminium foil

Conditioning

Increase the cost saving benefits of Decra[®] Foil by ensuring your roof is properly ventilated and enjoy air conditioning cost savings of **up to 25%**!



Ventilation



Decra[®] Ventilation works by expelling warm air and allowing fresh air into the roof space, creating a more comfortable living environment and reducing the amount of work your air conditioner needs to do.

Each vent is built into a stone coated Decra[®] roof tile so that it seamlessly matches the roof and enjoys UV / colour stability, while the design includes a super-fine mesh grill to prevent insects and rain from entering the roof space. There are 3 main reasons why you should consider ventilation:

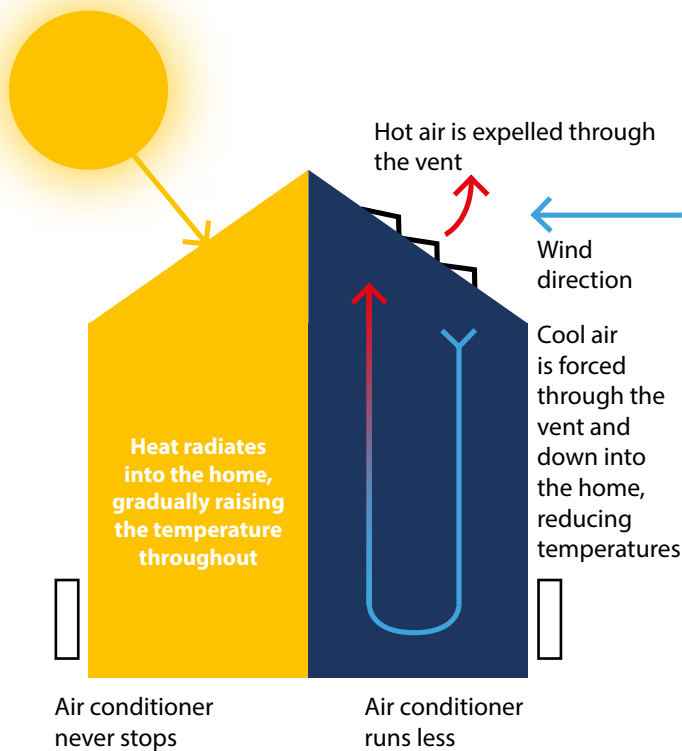
1. **Financial** - reducing energy costs
2. **Protection** - of building against rot
3. **Health** - of you and your family

How Ventilation protects your home

Without Ventilation, moisture in the air may condense on the inside of the roof. This can cause local accumulation of humidity, which may develop into widespread and extensive problems with rot and fungi. This destroys the timbers in your roof and could lead to roof collapse. Ventilation is an effective way of preventing this.

Without Ventilation

With Ventilation



Build Healthy

Warm rooms with a high relative humidity provide good growing conditions for mould, fungi, house dust mites and other micro-organisms. Houses and flats with excessive humidity levels are not only damaged, but are also known to cause respiratory problems, asthma and allergies. To avoid these problems, it's necessary to remove the damp and polluted air so that neither people nor buildings come to harm.

Decra[®] Ventilation systems are proved worldwide to be an effective tool to a healthy life.



Decra[®] Bathroom and Kitchen Vent



Decra[®] Roof Cowl Vent



Lighting your Home for Free

Why throw your money away on lighting your home when the sun can do it for free? Decra[®] have two ingenious products which allow natural healthy light to flood into your home, and both fit seamlessly with any Decra[®] roof profile.

Roof Window

Allowing natural light to flood into your home, the Decra[®] roof window opens at the bottom to provide extra ventilation, additional headroom and uninterrupted views.

The window is manufactured from polycarbonate with an acrylic filter. This combination has a supreme durability and UV resistance and is impact-proof against all types of rough weather, including monsoon rains.

Easy to install, the Decra[®] roof window is available in all genuine Decra[®] roof tile profiles to ensure the perfect looking roofs, as well as complete weather security after installation.

Measuring 510mm x 466mm, these windows come with a fully re-enforced timber frame and are offered as an escape window for use in the unfortunate event of a fire.

Sun Tunnel

The Decra[®] sun tunnel brings natural light through the roof space into the home, providing a healthier environment while reducing electricity costs.

Mounted in a genuine Decra[®] profile base, it seamlessly matches your roof. The lightweight dome captures the sun's natural light from any angle and directs it into even the darkest areas in your home.

Daylight is captured by the roof-mounted dome and directed through a reflective tube through the roof space to a ceiling mounted fitting, which then emits natural healthy light into the home.

Use Decra[®] sun tunnels to replace electric lighting during the day and see your energy costs tumble.

FREE Water *for life*

Despite the earth being 71% covered by water, clean fresh water is one of our scarcest resources. It makes sense to collect rainwater when it's clean, fresh and **free**. All you'll need is to choose what kind of vessel to collect the water in, and this will depend largely on what you use water for. Here, we examine how to catch the maximum amount of free water from your roof.

Collecting Rainwater



Catching the rain as it flows from the roof is the first and arguably most important part of harvesting rainwater, so for this job we recommend the GutterFlow range shown below. Remember, even water from bore holes can contain salt, so collecting rainwater is the most effective way of accessing fresh water. The GutterFlow range from 125mm upwards is manufactured in the UK to British Standards by one of the world's largest manufacturers. They've been doing it since 1947, so have over 65 years of experience and product development. Visit www.gutter-flow.com for more information.



Contains UV protection to keep colour

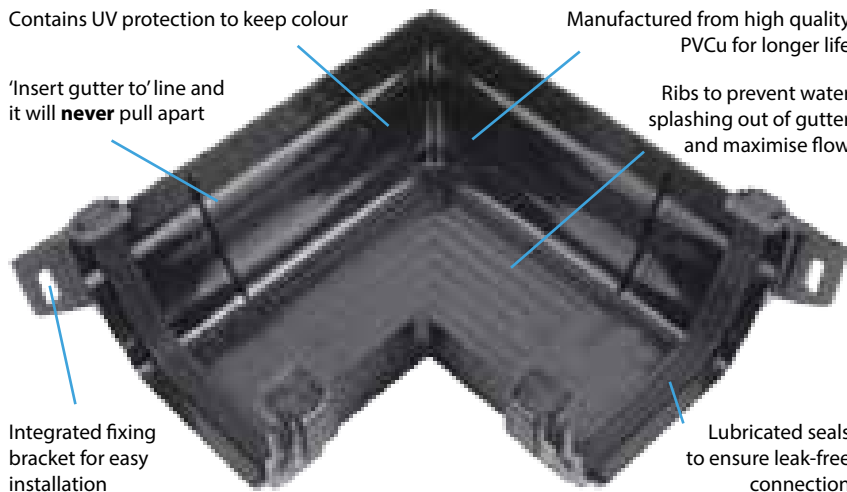
Manufactured from high quality PVCu for longer life

'Insert gutter to' line and it will **never** pull apart

Ribs to prevent water splashing out of gutter and maximise flow

Integrated fixing bracket for easy installation

Lubricated seals to ensure leak-free connection



Without rainwater guttering, your house could suffer from water damage

Did you know?

The quality of rainwater in contact with Decra® roofs was tested by a third party laboratory. The run-off water meets World Health Organisation (WHO) physical and chemical criteria for drinking water quality; the run-off would be odourless, tasteless and colourless, with an extremely low turbidity. For more information and test results, please visit our website at:

www.decrafrica.com



The Range

125mm Regency



Elegant profile to enhance the appearance of houses of a prestige nature.

Available in:



Our Commitment to the Environment

The Fletcher Building Roof Tile Group, manufacturers of Decra® roofs, leads the world in design and production of pressed steel roof tiles. The group adheres to the ISO 14001 Standard of Environmental Management and is committed to ongoing improvements, so that the activities of today don't impact negatively on the future.

A Decra® pressed steel roof is an environmentally friendly choice. It's lighter than concrete or clay roofing, which means transportation is more energy efficient. It requires less framing support which saves resources, and it's made from steel which is endlessly recyclable.

Less Energy Required to Transport

Concrete and clay tiles can be bulky and heavy. One house lot would require one average sized truck for transport. The same truck could carry enough Decra® pressed steel roofing for about 10 homes, using less energy (and therefore less carbon) to transport.

Less Timber Required for Framing

Compared to a concrete tile roof, a pressed steel roof doesn't require as much framing support, saving on timber and labour costs.

Long-Lasting and Recyclable

Building materials become more environmentally friendly the longer they last. It makes sense that if two products have the same environmental manufacturing impact, one that lasts twice as long as the other will have half the environmental footprint. Decra Roofing Systems® carry a 50 year warranty, even in severe marine environments. Coupled with the fact that they can be recycled and the end of their life, this makes them a truly environmentally friendly choice.

Sustainability Facts and Figures

- 24½ - The number of trees we saved last year by recycling
- 1,780 - The number of trees planted during Fletcher Building Roof Tile Group Sustainability Fortnight
- 13% - Reduction in gas use by the Fletcher Building Roof Tile Group from 2009-2010
- 18% - Reduction in water use by the Fletcher Building Roof Tile Group New Zealand plant from 2009-2010
- 43% - Reduction in environmental accidents at the Fletcher Building Roof Tile Group plant in New Zealand from 2009-2010
- 25% - The amount we aimed to reduce our contribution to landfill by 2013
- 100% - In 2011, the Fletcher Building Roof Tile Group became a 100% Fair Trade workplace. Buying exclusively Fair Trade consumables means we're supporting workers and communities in the developing world. It ensures a fair price and helps support global sustainability.

"Metal roofing's durability can virtually eliminate the need to use future raw materials to produce roofing... Metal is the product of choice for sustainability."

— Metal Construction Association

For more information, please visit our website at: www.fletcherbuilding.com/env

Your genuine Decra® energy reducing products are only available from Space & Style

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#GenuineDecra

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