



When the two owners of a building and interior design business went in search of ambient lighting solutions for the dark recesses of their own new home, they discovered a unique product called **illum Shaftless™ Solar Skylight System** that perfectly suited their needs.

In late 2013, Wendy and Michael Vella decided to build a new two-storey dwelling for themselves and their three boys in the north-western Melbourne suburb of Essendon. On the ground floor, shafted skylights were

out of the question but what they discovered was a range of products that could deliver the same variant light effect of a skylight to brighten some of the dark interior spaces.

Built by Australian hardware solutions business, Kimberley, illum is the world's first 'smart skylight' that operates and installs without the need of a light shaft, flexible tube or a large roof cavity. Using an illum skylight panel that is connected to an external solar panel, illum is designed to convert the sun's energy to light and auto-adjust brightness levels to match external conditions.

As there is no need to have shafts or roof cavities, illum can be installed practically anywhere by builders and DIY home improvers to introduce a natural light effect into just about all dark spaces even multi-level buildings.

Wanting to combine functionality, sustainability and aesthetics when designing the interior décor for their new home, the Vellas started scouring the internet for ways to introduce natural light to the dark interior spaces without having to resort to traditional electrical fittings.

"Our experience as the owners of a builder and interior design business taught us that there would be dark spaces in our north facing dwelling," Wendy Vella said. "I was hoping not to have to use electric lighting but I also knew that being a double story house meant that we were not going to be able to use traditional skylights.

"I looked around on the internet and found illum. I recognised the Kimberley name – we have bought products from them before through our building company – and therefore knew I could trust it as being readily available, locally made and well-supported.

"So I rang and discussed my predicament with them and straight away knew it was what I needed. From my research, the product was pretty unique. There was nothing else I could find that was going to help us out with ambient light on the ground floor. With illum all we would need to do was to fit the illum skylight panel and run a cable to a solar panel."

Wendy said they went ahead and fitted nine illum panels throughout the house which are being powered by two solar panels on the roof. Each of the four bedrooms in the house has a walk-in wardrobe which have been fitted with a 300 x 300 mm square illum panel.

A downstairs powder room and toilet – also a dark internal space – has been fitted with this same small panel and another three panels light up the preparation area and large island bench in the kitchen. A 600 x 600 mm panel is fitted in the lounge-room to supplement natural light from windows and there is also a 600 x 600 mm situated above the stairwell to introduce bright light and accentuate the large orb chandelier which serves for night time lighting.

"I didn't want the boys leaving lights on all day when they are not in use so I wanted skylights in each of those spaces to light them up otherwise they would have been very gloomy and totally reliant on electricity," Wendy said. "The illum system was perfect for this application.

"There are no dark, gloomy spaces and the whole house feels bright and welcoming thanks to the illum skylights. I am very happy with the design and function. I put a lot of effort into the interior design and we used a lot of designer fittings throughout the house and the illum system doesn't impact on the overall look of the décor in any way.

"They sit almost flush and blend into the ceiling. When you look at them, all you see is light and they give us all of the light we need and make a direct ambient connection to what is happening outside. We live under a flight path for Essendon airport and you even notice the shadowing flicker of light when a plane flies overhead as you would if you were outside."

Not only do the solar-powered light panels operate as a window to outside light, but they also deliver significant energy cost savings by reducing the dependence on utility electricity. In addition the absence of light wells, shafts or roof cavities means that seasonal temperature control is more efficient introducing further sustainability characteristics for the home through reduced loss of warm and cool air in winter and summer respectively.



"In the kitchen, we never have to turn on the lights in the morning once the sun is up and in the height of summer, the area is fully lit until 8:30-9:00 pm," Wendy said. "Even on a dull day, we have plenty of light.

"Similarly, the kids never have to use the lights in the walk-in wardrobes. Their main activity in there is before school and after school so the lights rarely get switched on and therefore rarely get inadvertently left on when not in use. It is the same right through the house and that has drastically reduced our need for electric light, especially in our well-used areas.

"Meanwhile, we have air conditioning throughout the house so, when it is hot, we are not losing cool air through light-wells as you would with a traditional skylight. There is no exit point for cool and warm air and the illum light fittings generate no heat at all which is also good for the small internal spaces where we use them.

"I also think that the illum panels are beautiful looking fittings which require little or no maintenance to remove bugs and cobwebs as you do with light shafts nor do you have any problems with damage to shuts and fittings from continual exposure to ultra-violet light.

"A lot of skylights I have seen have a tendency to yellow over time but the illum doesn't. I have had them in place for 12 months now and they are as white and bright as ever."

While the initial cost of installation may be a little more than standard light fittings, Wendy Vella is adamant they represent good value for money over a longer period of time.

"I think it was a tremendous investment which will prove worthwhile over the life of the product in terms of wear, functionality, the lower energy costs and not having to buy light bulbs," she said. "Over the long run, clearly the benefits outweigh the initial cost difference and the look is beautiful.

"Also, the bottom line for us, and I would imagine lots of other people in multi-storey buildings, if you want to have ambient light in some of the dimmer nooks of your home, you either go with something like illum or you go without and have to use traditional utility-powered light fittings. There was no other option.

"It is a great product that supports the growing demand from home-owners and home designers for more environmentally sound, sustainable dwellings. Everyone is predicting that the price of power will continue rising, so illum contributes to that reduced cost story very well and helps to make any house less dependent on utility power and all of the costs that come with that.

"From a sustainable design point of view, something like this could be used in every part of the house – or in industrial and commercial facilities as well. It is particularly relevant in summer as it means that you are not using lighting until 8:30-9:00 at night. It would also be a great option for apartment living.

"I can see that it is such a great option for apartment living. We have an investment property and we are going to review that and install some illum systems there as soon as we get an opportunity."

Wendy was also quick to praise the service and support for the products provided by Kimberley.

"They demonstrated a high degree of interior design knowledge and could not have been more helpful in helping us to select the right sizes and work out where to fit them," she said. "The concept of using solar energy to power light panels that reflect external conditions in the same way that a skylight would is a no-brainer.

"It is surprising that no-one thought of it before Kimberley did."



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