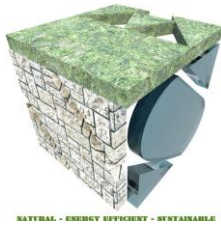


**NATURAL - ENERGY EFFICIENT - SUSTAINABLE**

# Natural, Energy Efficient and Sustainable, Products and Services

## Case Study - Company E



## Product

Company E has a long and successful history of designing energy efficient timber frame houses. By building almost airtight buildings (supplementing the timber frame with triple glazed windows with high U values, a water recycling system and demand controlled ventilation) Company E can build a house that uses as little as 50 kWh/m<sup>2</sup> of electricity per year, thereby contributing to the concept of sustainable cities.

### Advantages of using this product when compared to others

- Shorter construction times as the building can be prefabricated (and construction is less likely to be impacted by weather i.e. some types of cement / concrete takes longer to dry in the rain).
- Timber is lighter than most other conventional construction materials and therefore is less demanding on a foundation.
- Higher thermal insulation at an economic price when compared with alternative construction methods.
- Timber is effectively carbon-neutral. Most of the energy used to process this product comes from wood.
- Waste wood can be recycled easily.
- Houses require very little energy to maintain.

### Disadvantages of using this product when compared to others

- Wood is more flammable than brick and mortar
- Wood can transmit sound better than some other building materials. This may mean that additional consideration must be taken to sound dampen a building.
- Timber is not as strong as some other building materials. This may mean that some longer rooms may require a support pillar.

## Pricing

The demand for wood is currently extremely high, and as a result Company E pays a highly competitive price to ensure a regular supply. In addition, Company E only uses slow-growth wood which is less cost effective to grow (with the advantage of a higher quality end product). As a result, Company E's products are priced at the higher end of the wood market. Wood is comparable



## SWOT

<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Relationships with suppliers</li> <li>• Experience</li> <li>• Marketing</li> <li>• Staff</li> <li>• Manufacturing facilities</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>• Carbon footprint of exporting</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• Market trend towards more efficient buildings</li> <li>• More support from decision makers</li> </ul>
<b>Threats</b>	<ul style="list-style-type: none"> <li>• Conventional construction has declined</li> <li>• Reduction in wood supply</li> <li>• Poor lending facilities</li> <li>• Low cost competition</li> </ul>

## Funding

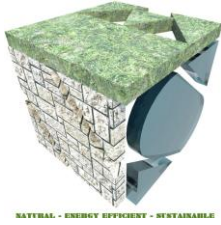
At present there are few grants or non-conventional funding opportunities for this type of construction. Generally, the cost of this investment can be covered in a typical mortgage but it is imperative to check with the providers to ensure they will provide a loan for new builds.

## Suppliers

Company E recognises the importance of a mutually beneficial relationship between them and their suppliers. To do this, the company guarantees that they will match or beat any price offered by competitors for timbre that meets their quality control standards. In addition, Company E promises to fell the timbre at an environmentally friendly pace, to ensure the long term viability of the forest.

The company also uses their own experience in the wood industry to offer advice and support to their suppliers. Company E can advise on efficient felling, the forestry process, and also offer the help of a personal forest advisor. This mutually beneficial relationship helps enhance the supplier's product and build reports to help ensure company E has a reliable supply of timbre.

Company E believes in using local suppliers in order to keep the revenue within local region, thereby helping to create additional jobs in the local community.



## Quality

Company E operates a state of the art sawmill and only uses slow-growth wood sourced from local forests. The company only uses the highest quality wood that is well suited for construction and joinery purposes and pays a competitive price to suppliers in order to ensure a regular supply.

Company E takes great pride in their work and does everything they can to ensure the highest possible quality. All their facilities are certified to ISO 14001. In addition, many of the products are certified by the Department of Agriculture. Martinson is also certified according to PEFC™ (Programme for the Endorsement of Forest Certification) and FSC® (Forest Stewardship Council) chain of custody of the feedstock and PFE, a program of measures for energy efficiency.