

# Cedar Energy Consumption

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Western Red Cedar is one of the most renewable, recyclable, lowest energy consumption and environmentally friendly siding materials available today.

## Embodied Energy

Embodied energy includes all energy, direct and indirect, used to extract, manufacture, transport and install materials. This principle aims to lower the energy used, not only during service life, which tends to be in the control of the designer, but also for producing the materials. This is another area where life-cycle analysis can provide the research required for informed choices.

The manufacture of wood uses very little energy so, even though it may be brought to the building site from outside the area, the embodied energy will normally be less than locally manufactured concrete. Life-cycle comparisons demonstrate that wood has low embodied energy and is an excellent choice to meet this principle.

This principle also encompasses reducing the depletion of resources by minimizing the amount of resources used and, in particular, the amount of non-renewable resources used.

## Renewable Resource

Wood is the only major building material that is renewable. The USA and Canada's sustainably managed forests ensure that there is an ample supply. New manufacturing technology allows every part of the tree to be used so that nothing is wasted. Advanced engineered wood products make use of fast growing species to produce high strength products without requiring large dimension timbers to meet building needs. In addition, engineered building systems, such as trusses, allow larger clear spans while reducing the amount of material required. Wood is also durable which means that the materials will last for a long time and not need to be replaced. Churches in Norway and temples in Japan have lasted over a thousand years. In North America, there are many examples of historic wood buildings from the 16th century that are still standing. Even the foundation of the Empire State Building rests on wood piles! In fact, not only does wood last, but there are many examples of new buildings that have used wood reclaimed from decommissioned buildings. This is the ultimate in reducing the consumption of materials, but even the use of new wood gives it a significant advantage over other materials. Wood is the only major building material that is renewable - a reason why our forest base is still abundant after 150 years of harvesting. Wood is natural, biodegradable, recyclable, and originates from sustainably managed forests.

