## **Energy efficiency of log houses and prefabricated houses**

A comprehensively planned log or prefab house, which has been built to a high quality, has the same energy efficiency as any other equivalent type of house.

While planning a house we recommend you pay attention to the compactness of the house, the position of the house in relation to the cardinal directions, the size and location of facade openings. This is important due to the fact that 13% of the heat is lost through the roof ceiling, 35% through the ventilation system, 15% through doors and windows, 15% through walls, 15% through warm domestic water and 7% through floors.



In average 80% of energy spent during the lifespan of a building will be used for heating and cooling the rooms and for other devices – the rest of the 20% of energy is spent on manufacturing and building the house.

According to the intended use of the building, the norms of energy efficiency must be taken into account throughout the entire engineering process. As a result of following and implementing the right principals in the early stages of engineering we are able to create energy efficient houses.

Energy efficient solutions can reduce the fixed costs up to 20-30% and can significantly improve the quality of the living environment.

## Log houses advantages

Timber is a fully reusable natural material. In comparison with other construction materials, timber is one of the most ecological.

Because of low thermal conductivity timber is one of the best construction materials in both cold and warm climates. Using wood as building material guarantees a balanced indoor climate and temperature. The correct moisture level of the indoor air in a log house prevents the formation of static electricity and circulation of dust.



The importance of timber as construction material is becoming more highlighted as the exhaustible natural resources decrease and people make the transition to energy efficient construction materials. Timber is a renewable natural resource and the growing norms for energy efficiency support the use of timber. The manufacturing of log houses is an environmentally friendly production process, which in turn generates new energy, e.g. reusing wood chips to create

- ✓ Healthy living environment
- ✓ Ecological Timber is 100% renewable
- ✓ No harmful substances emerge from wood
- ✓ No static electricity
- ✓ The natural breathing of the wood
- ✓ Can build during every season
- $\checkmark$  Opportunity to do some of the construction by yourself
- ✓ Constantly growing market value secure investment
- ✓ Visually beautiful
- ✓ Warm and cosy