

## SUSTAINABLE TIMBER ACTION IN EUROPE

### *Sustainable Timber in Construction in Lorüns*

**Context** – *The village of Lorüns is located in the West of Austria, in the state of Vorarlberg. The village has less than 500 inhabitants and only limited expertise and personnel to work on large-scale tenders. Nevertheless the village strives to include environmental and social criteria in their public procurement.*

*For this particularly large construction project of building a new fire station and village hall Lorüns requested outside expertise and support from the provincial GPP advisory service (ÖkoBeschaffungsService Vorarlberg - ÖBS). The advisory service assists its clients in drafting and executing public tenders. For the specification of environmental criteria the local government agency has developed a database of technical specifications which can be adjusted to the type of product or service the public authority wants to tender for. This “Baubook” has been developed in cooperation with the Energy Institute Vorarlberg and the Austrian Institute for Building and Ecology (IBO).*



### **Subject-matter**

The municipality of Lorüns constructed a new village hall and a fire station to replace the existing buildings. The village hall has been constructed to the passive-house standard, the fire station received a solid wood facade and both buildings comply with ecological criteria.

### **Timber products involved:**

*Structural timber (KVH), solid wood, wood-fibre insulation boards, glued wood panels*

Most of these timber products are a regular part of construction work but the fire station was additionally equipped with a structural timber facade.

**Contract period**     From April 2012 to October 2012

### **Type of contract**

The tender was for a works contract for the construction of two buildings including the sub-contracting of workers and experts.

### **Technical specifications & requirements**

The timber products may exclusively contain timber from sustainable forest management. The sustainable management of the forest is ensured through a forest management plan with long term management targets and the measures to achieve these targets.

Tropical timber from non-sustainable forest management cannot be among offered products.

#### Structural timber (KVH)/ solid wood:

- Avoidance of wood preservatives
- Sustainable sourcing of timber

#### Wood-fibre insulation boards:

- Avoidance of synthetic material content of more than 15% of the weight
- Free of CMR substances
- Sustainable sourcing of timber
- Products without metal components

#### Glued wood panels:

- Avoidance of wood preservatives
- Sustainable sourcing of tropical timber
- Sustainable sourcing of non-tropical timber
- Avoidance of formaldehyde emissions from wood materials

#### Materials used on/with timber: wood preservatives & wood glue

- Avoidance of CMR substances
- Avoidance of substances dangerous for the environment
- Avoidance of aromatic hydrocarbons
- Avoidance of (S)VOCs - (semi)volatile organic compounds
- Avoidance halogenated organic compounds in construction material made from polymers
- Avoidance of biocides
- Avoidance of free formaldehyde
- Low emission flooring adhesives

Self-declaration of buyers on ILO core criteria for all aspects of the construction work

### **Verification**

- Sustainable sourcing of non-tropical timber:
  - Proven origin from countries with a legal obligation for sustainable forest management.
  - Proven origin of the product from waste wood, industrial wood such as residual wood chips, trimmings and off-cuts
  - FSC or PEFC CoC certificate
  - Naturland certificate
  - Alternatively products with the Natureplus quality label

- Sustainable sourcing of tropical timber:
  - Confirmation from the supplier that the products are free of tropical timber.
  - Should tropical timber be part of the products there has to be evidence that it is from sustainable forest management. The whole chain of custody needs to be verified using FSC criteria or equivalent.
  - The following ecolabels comply with these requirements: natureplus quality label, Austrian Ecolabel, Blue Angel

### **Award/evaluation criteria**

The tender was awarded to the bidder with the lowest price, however if two or more bidders offer the same price the bidder which has more people in training (apprenticeships) or is offering specific opportunities to unemployed people would be chosen.

### **Problems encountered**

The costs for external consultation from ÖBS were about 0.5% of the overall building costs. In addition the passive house standard increased costs by 1-2% which is expected to be amortised quickly due to lower life cycle costs.

There are also additional costs for certified and low-emission timber products. The price premiums vary between products. But prices for certified timber have fallen by ¼ during the last years because the ÖBS has been cooperating with suppliers and thus ensured a constant demand for certified timber in the region. However timber products such as regional certified timber, certified solid wood and certified low-emission glued wood panels are still more expensive. Nevertheless these costs were acceptable since the total amount for the construction was only marginally higher than for a regular building.

### **Results achieved**

Through the help of the provincial GPP advisory service Lörüns was able to construct energy-efficient buildings which comply with sound environmental standards which will save the public authority money in the medium and long-term and provide a positive model for the local community.

The number and quality of bidders was sufficient because the provincial GPP advisory service has been working to establish a market for sustainable timber suppliers since 1998. This cooperation with the market means that there are number of suppliers available in the region who are certified themselves and offer certified timber.

### **Lessons learned**

Certified timber for all product types was available without problems. The advisory service has been closely working with suppliers and construction workers, helping them to achieve certification while also providing a relatively constant stream of projects which required certified products and services. Lorüns benefited from the ÖBS's standardised and long-term work in the Vorarlberg region.

For the verification of the certification Lorüns demanded invoices and the delivery slips from suppliers and contractors. However these requirements were clearly communicated beforehand and suppliers were supported in this process. Through this Lorüns and the ÖBS ensured that even bidders who were new to this topic could participate in the tender.

The village of Lorüns benefited from external knowledge and support. Contracting outside expertise for the drafting of the tender enabled the sustainable and innovative construction of two public buildings with only minor increases to the overall costs.



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<http://www.loruens.at/index.htm>