

# Monastery of Valamo - Wood energy in national landscape



**The monastery of Valamo** is the only monastery of the Finnish Orthodox Church and it is located in the beautiful lake region of Eastern Finland. The monastery supports itself mainly through tourism since it is visited by 200 people daily. The unique and peaceful atmosphere and extensive accommodation services make the monastery an inviting resort. The monastery comprises more than 10 buildings, out of which the hotel and the art conservation institute are the largest. The heat for the whole complex is provided by a pellet heating facility.

- The main function of the monastery is to serve as a facility for the monks to practice Christian life.
- The monastery offers several services to outsiders. In addition to accommodation services, there is a library specialised in orthodox theology, Lay Academy offering adult education, restaurant, Art conservation institute, museum of monastery history, gift shop and a vineyard.



Valamo is situated by lake Joensuu in the municipality of Heinävesi 65 kilometres from Joensuu.



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## Valamo heating facility

The heating facility provides heat for approximately 40 000 m<sup>3</sup>. Since 1983 the monastery was heated with wood chips. In 2000 the old chip boiler was replaced with a pellet burner which was then changed to a bigger one in 2002. Currently, the annual heat production is 2400 MWh.



The maintenance costs of the plant are determined by the amount of heat spent. Additionally, the plant is serviced once a month.

<b>Online since:</b>	1983
<b>Boiler:</b>	Skewed mechanical grate Osby PB2 750 kW
<b>Fuel:</b>	Pellet and light oil
<b>Fuel storage:</b>	100 loose-m <sup>3</sup>
<b>Efficiency:</b>	75 %
<b>Heating:</b>	40 000 m <sup>3</sup> /2km
<b>Controlling:</b>	Automated, GSM alarm
<b>Owner:</b>	Vapo Energy Ltd.
<b>Investment cost:</b>	120 000€

## Fuel Facts:

- Pellets for the monastery are provided by Vapo Energy Ltd. and are transported from Ilomantsi (130 kilometres). 500 tons of pellets are consumed annually.
- Pellets are then transported from the intermediate storage to the screw conveyor by tractor.
- The storage holds enough fuel for approximately two weeks in harsh frost conditions.
- Oil is a back up fuel which under normal conditions is not used.

