



Profitability of Heating Entrepreneurship from the Viewpoint of Heating Energy Buyer, Heating Energy Seller and Energy Wood Seller

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Introduction

The business idea of heating entrepreneurship is to acquire usable, local raw materials and turn them into heat energy to be distributed and sold to the customers. In most cases, the business activities of a heating entrepreneur also include supervision and service operations of the facilities which are used for heat production. In Finland the number of heating plants managed by heating entrepreneurs has increased from three to 423 units between 1992 and 2008.

The focus of this study was to clarify:

- if heating entrepreneurship is profitable for the heating energy seller,
- if heating entrepreneurship is profitable from the viewpoint of a heating energy buyer,
- if energy wood selling to a heating entrepreneur is profitable for the energy wood seller.

Material and Methods

A questionnaire was sent to all (N=57) heating entrepreneurs in the area of the Forest Centre of South Ostrobothnia in January 2009. Of the received answers, only heating entrepreneurs using mainly forest chips to produce energy were included in the results presented here.

The profitability of heating entrepreneurship from the viewpoint of a heating energy seller was calculated from net incomes. To analyse the feasibility of energy wood selling from the viewpoint of a forest owner the energy wood procurement costs were subtracted from the incomes of selling energy wood. The prices of heating energy (oil, electricity and district heating) were compared with the realized prices of heating energy sold by the heating entrepreneurs.

Results

Heating entrepreneurship was found to be profitable for all the parties concerned.

Heating Entrepreneur:

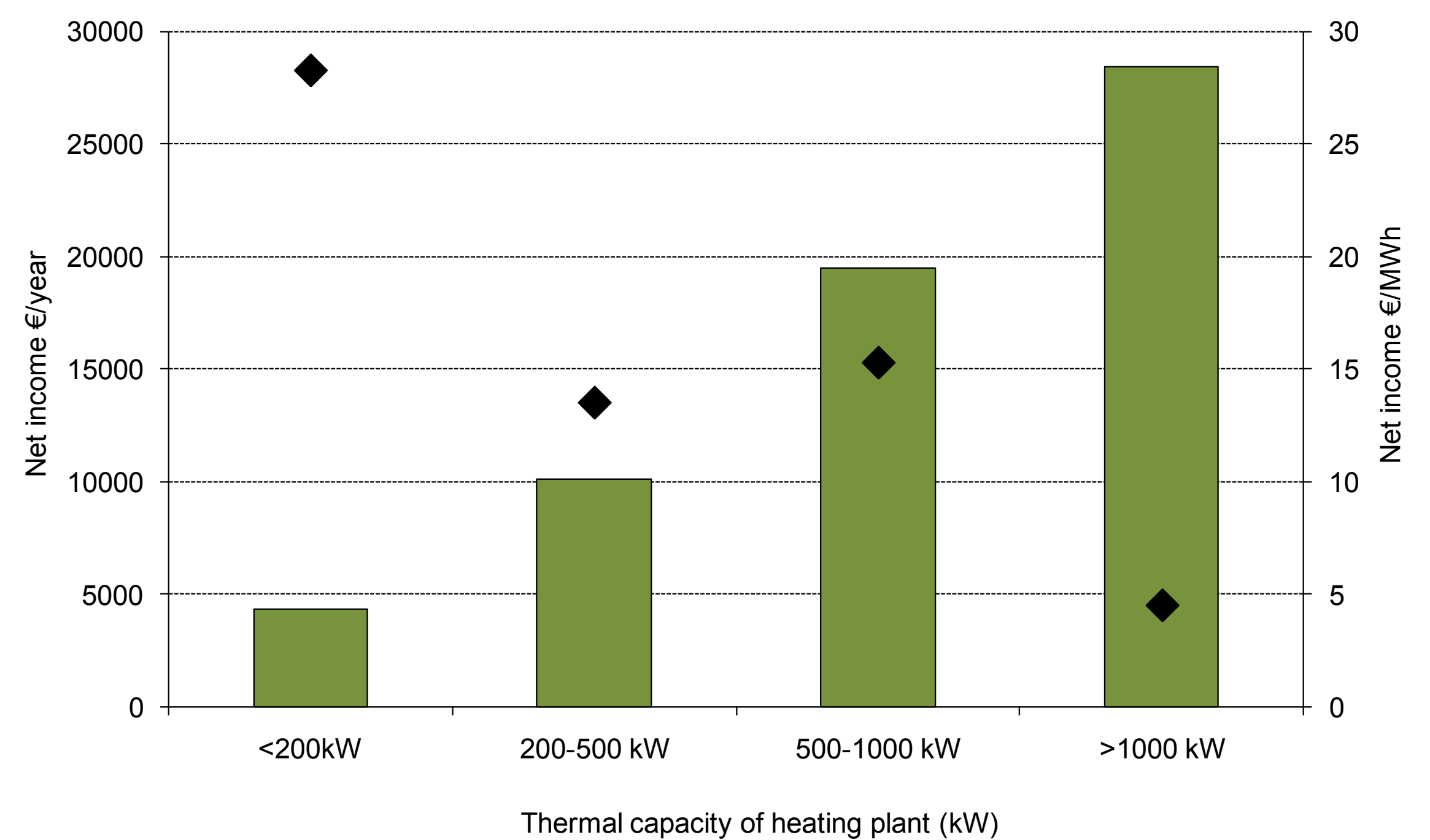
- The average net income in the group of the largest heating plants was 28 500 € per year and in the group of the smallest heating plants the average net income was slightly over 4 000 € per year.
- The net income from selling heat represents only a part of the income a heating entrepreneur receives from heat production. Other, significant parts are formed by income from selling energy wood to the plant as well as compensation for supervision and maintenance of the plant.

Heating Energy Buyer:

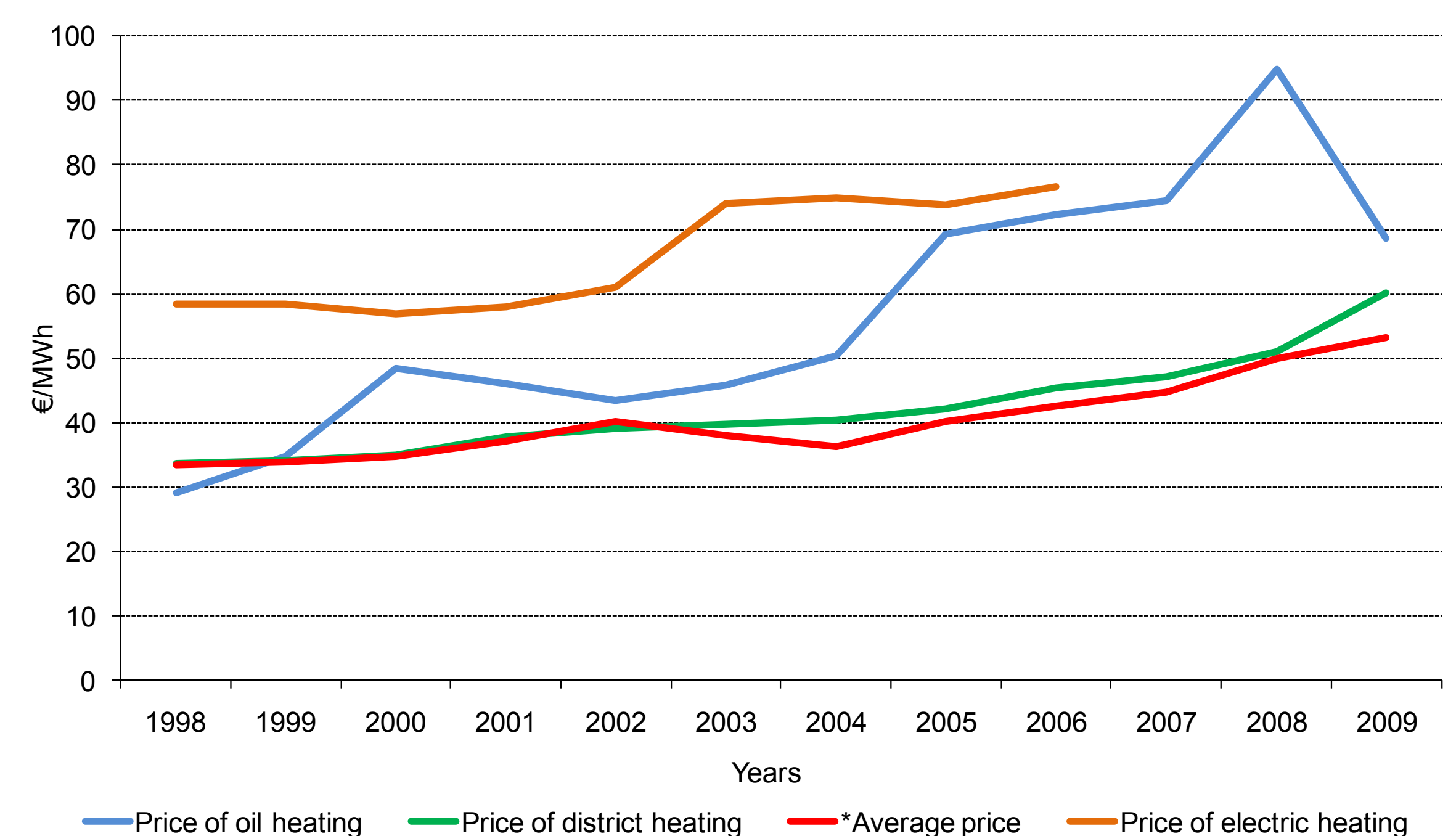
- The price of the heating energy sold by heating entrepreneurs was very competitive. In 2006 it was 30 €/MWh cheaper than oil heat, 34 €/MWh cheaper than electric heat and 3 €/MWh cheaper than district heating.

Energy Wood Seller:

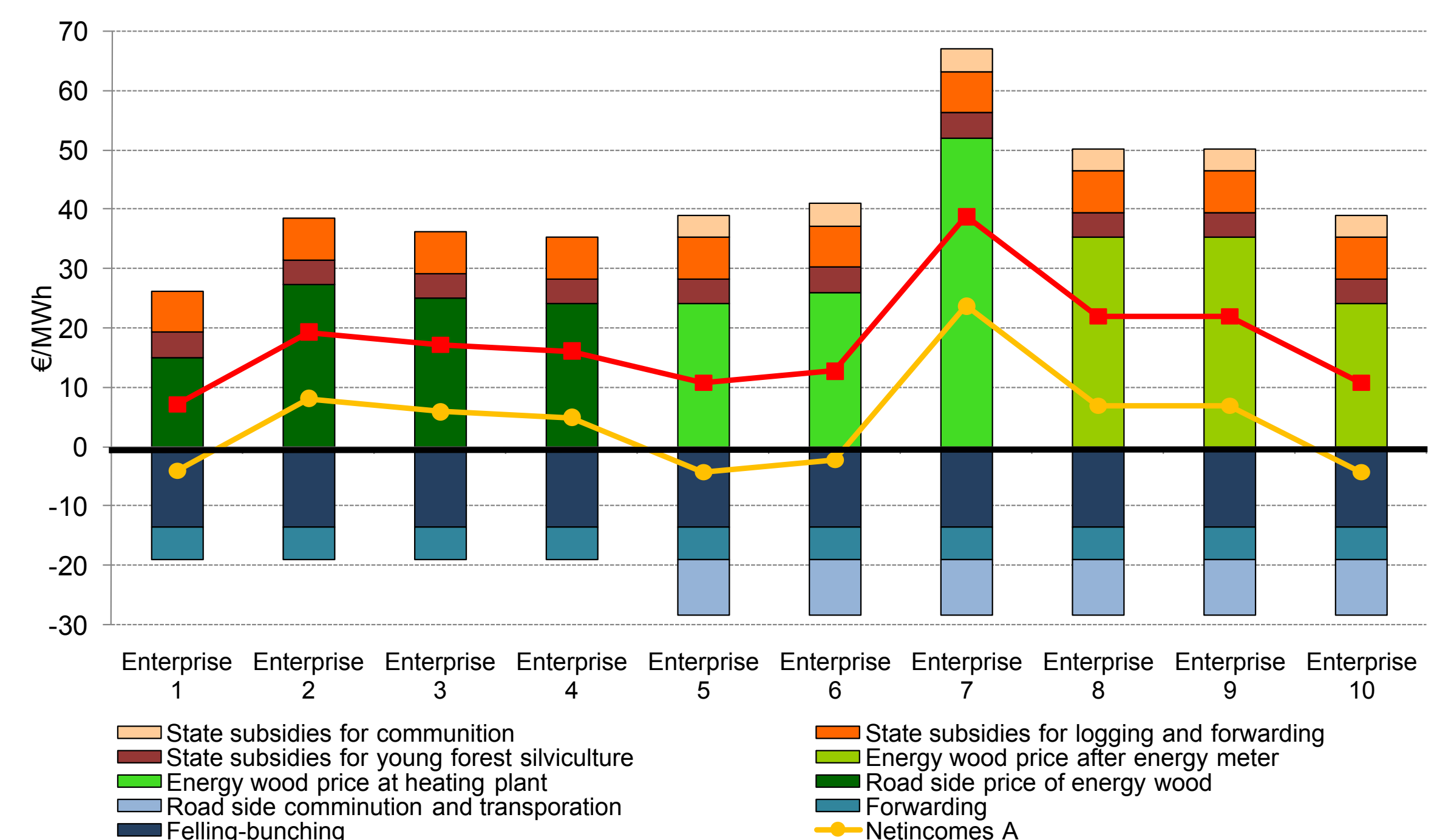
- The average net income of a forest owner from selling energy wood to heating entrepreneurs was 18 €/m³. Without state subsidies the net income would have been 4 €/m³.



The average annual net income and the average net income per sold energy unit (€/MWh) of the heating entrepreneurs divided into groups by the thermal capacity of the heating plants (kW).



Price development of oil heating, electricity heating and district heating and the price of heating energy sold by the heating entrepreneurs from 1998 to 2009. In the figure the average price line represents the average price of heating energy sold by the heating entrepreneurs.



The columns represent the income from energy wood selling, the state subsidies and the costs of energy wood procurement. Net income A represents the forest owner's net income when the energy wood procurement costs have been subtracted from the income from energy wood sales and the state subsidies. The net income B represents forest owner's net income without state subsidies.

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