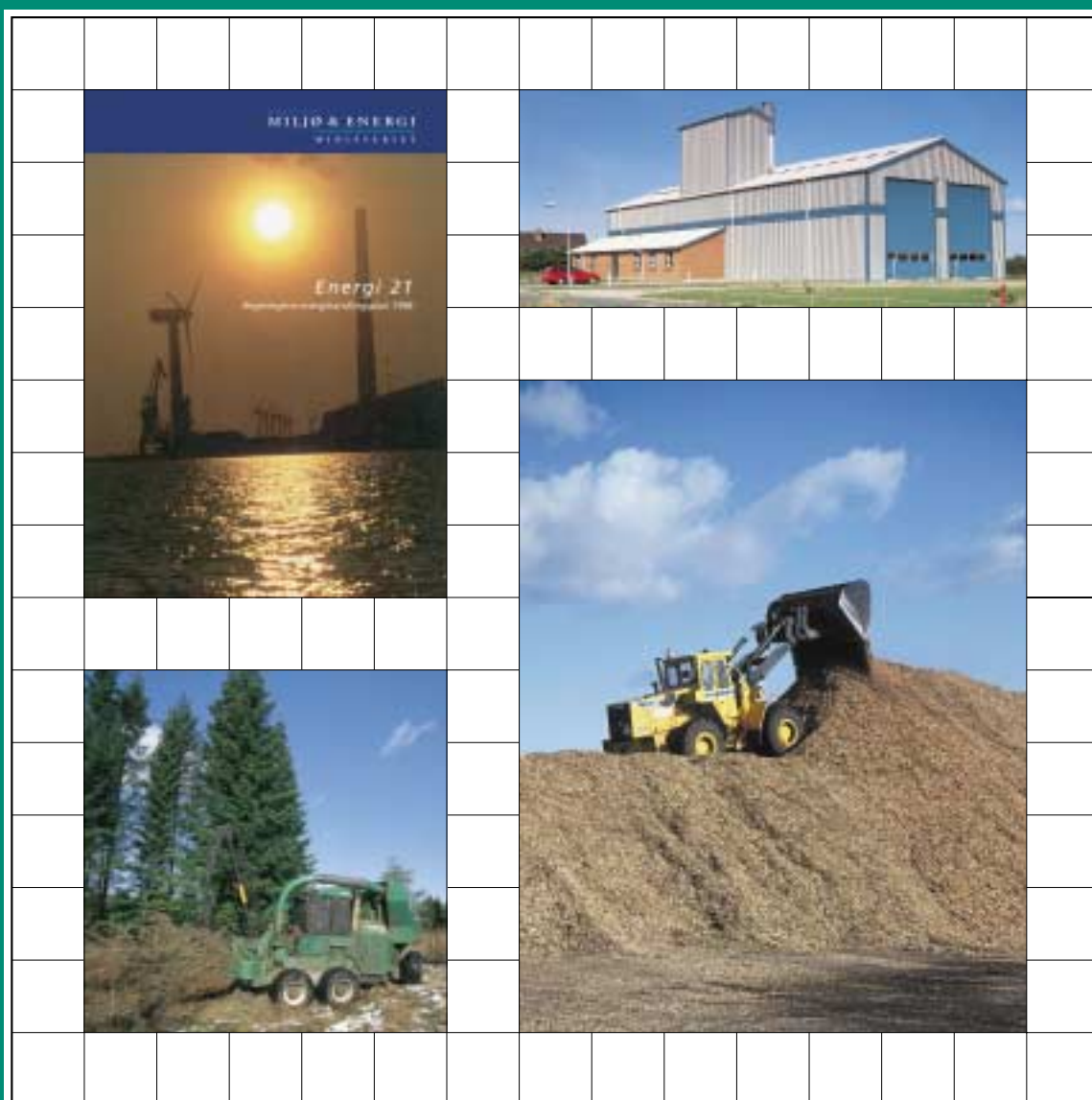


Wood for Energy Production

Technology - Environment - Economy



Wood for Energy production was prepared in 2002 by the Centre for Biomass Technology (www.videncenter.dk) on behalf of the Danish Energy Agency. The first edition was named "Wood Chips for Energy Production". The publication can be found on the web site: www.ens.dk. The paper edition can be ordered through the National Energy Information Centre or the Centre for Biomass Technology at the following addresses:

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Cover: The cover shows "Energiplan 21", Klaus Holsting and Torben Zenths Tegnestue
Harbøre Varmeværk, Ansaldo Vølund A/S
Chipper in operation, BioPress/Torben Skøtt
Front-end loader on a wood chip pile at Måbjergværket, BioPress/Torben Skøtt

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Foreword

The emission of CO₂ and other greenhouse gases is one of the greatest environmental problems of our time. At the United Nations Climate Change Conference in 1997 in Japan, it was agreed that total worldwide emissions should be reduced by 5.2% by the year 2012. The European Union has undertaken the major reduction of 8% compared to the 1990 level.

Today only 6% of the European Union's consumption of energy is covered by renewable energy, but the EU Commission Renewable Energy White Paper, published in December 1997, prescribes a doubling of the proportion of renewable energy by the end of the year 2010.

Biomass is the sector that must be developed most and fastest. It is estimated that in 2010 it should amount to 74% of the European Union's total consumption of renewable energy.

Danish experiences acquired in the field of biomass are already now significant. We have achieved much in the field of both the individual and the collective energy supply. Denmark's strongholds are in the field of collective heating supply and decentralised CHP (combined heat and power) generation based on biomass, and cost-effective fuel production, in particular.

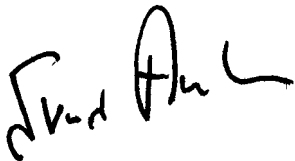
This publication illustrates how Denmark has succeeded in utilising its wood resources in an environmentally desirable and CO₂-neutral energy production. It provides an introduction to the most recent Danish developments in the field of wood for energy production, both with regard to technology, environment, and economy.

At present more than 10% of Denmark is covered with forests, and the intention is a doubling of the area within the next century. The forest trees are used for timber and for manufacturing in the wood industry. The forest also provides thinning wood and other wood waste that can all be used for energy production.

The long-term perspective of the Government's plan for a sustainable energy development in Denmark, Energy 21 (Energi 21), is to develop an energy system where the proportion of renewable energy continuously increases. This preconditions a continuous and gradual fitting in of renewable energy concurrent with the technological and financial possibilities.

The enlargement will primarily take place by means of an increased application of bioenergy and wind power. Therefore, biomass will contribute considerably to Denmark's and the European Union's energy production in the next decades.

At the same time, biomass is an area of great potential for the Danish energy industry - also on the export market.



Svend Auken
Minister for the Environment and Energy