

Fourteen percent of the total primary energy produced from biomass – a success story from the highly industrialised region of Upper Austria

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Background

Austria has seen a very encouraging market development of biomass utilisation - the energetic use of biomass doubled over the last 20 years. In the last 15 years, more than 23,000 modern, automatic, and low-emission installations using wood-chips and wood pellets were built, especially small-scale heating systems (<100 kW) were installed in private households and small businesses. About 15,000 jobs were created by biomass utilisation and annually 800 Mio Euro investment is spent in the regions of Austria instead of importing fossil fuels. The region of Upper Austria is on the forefront of this development - based on its ambitious energy strategy to boost renewable energy sources it has developed a wide range of instruments to promote the use of biomass. That is why 36 % of the installations are to be found in this region. In total, biomass accounts for 14% of the primary energy production.

Energy policy framework

Convinced that a strong political commitment to renewable energy sources will contribute strongly to both environmental protection and economic growth, the regional government of Upper Austria adopted an ambitious regional energy strategy in 1994, a comprehensive energy action plan was developed and implemented which led to an increase of the share of renewable energy sources from 25 to 30% including the following biomass based installations:

- ?? in total 13,400 modern automatic biomass heating systems
- ?? 10,900 modern wood chip installations
- ?? 160 biomass district heating networks (705 MW)
- ?? 2,130 wood pellets installations
- ?? more than 30 biogas and sewage gas plants.

Recently the Upper Austrian Government unanimously passed the "Energy 21" strategy, continuing the strategy of the successful first energy plan (1994-2000) into the 21st century. The O.Ö. Energiesparverband, the regional energy agency of Upper Austria, carries out many of the following programmes and measures to implement the energy action plan. The action plan includes among others the following activities:

Information and awareness raising for the general public

The lack of information is still considered to be the most important barrier for further market penetration of renewable energy sources. That is why numerous awareness and information activities are carried out, including for example:

- ?? An energy hotline which can be called for free rate (about 9,000 enquiries/year)
- ?? Numerous publications and other information tools, for example: videos, interactive CD-ROMs, information folders about biomass district heating networks and innovative financing mechanisms
- ?? The internet: The O.Ö. Energiesparverband's homepage www.esv.or.at has more than 5,000 visitors every week.
- ?? Media campaigns are run frequently, informing about successful energy projects. The most recent campaign, called "Energy Globe Award 2001", was implemented in co-operation with the national television company and the largest national newspaper. This campaign included a competition in which more than 1,000 projects from 75 countries participated. The winners of the Energy Globe Award 2001 were honoured at a TV-gala event which was televised in Europe.
- ?? The "Energiesparmesse" is an exhibition and fair on renewable energy sources and energy efficiency, held annually. In 2001, more than 200,000 visitors and about 1,600 exhibitors attended.

?? Free energy advice and auditing: this service is directed towards private households, public institutions and companies which are on the point of making a decision about an investment. In 2000, more than 10,000 of these energy advice sessions were held.

Training programmes, seminars and conferences

In order to allow a rapid market growth of biomass technologies, well-targeted training programmes and other professional information activities have an important role to play. This include, among others:

- ?? A training programme for plumbers: so far more than 10 courses held (participation of over 200)
- ?? Training programmes for energy advisors and auditors
- ?? Regular seminars and conferences provide up-dated information on new developments from Austria and abroad, e.g. the WORLD SUSTAINABLE ENERGY DAY – an international conference with 600 delegates from more than 60 countries - held annually in Upper Austria. This year a special event - "the biomass day" - informed about new biomass technologies and trends (400 participants).

Financial support, legal and regulatory measures

The regional government supports the installation of single wood heating systems and biomass district heating networks. For electricity generated from biomass special feed-in tariffs are paid based on an annual tendering process. Additionally a number of legal and administrative measures aim at providing a favourable framework for biomass, e.g. a new regional law that foresees that for the energy supply of public buildings biomass, solar and other renewable energy sources have to be given priority.

International co-operation

- ?? "Biomass Tank" – an EU funded project for wood pellets: A detailed study on the utilisation of wood pellets in Austria and Germany was developed including literature research, surveys to market actors, a technology overview and a test phase where single family houses were accompanied during one heating season. Additionally a survey to private households using wood pellet heating systems was carried out to determine their levels of satisfaction, to assess possible problems and find solutions.
- ?? Biomass Stock Exchange: Presently biomass fuel is very often traded through informal channels like neighbourhood-trading and consumer groups in urban areas do not have access thus hampering further market penetration. A Stock Exchange as new marketing concept for biomass fuel was established to attract new consumer groups.

Research and demonstration programmes

The "Energie-Technologie-Programm", a regional programme for energy-related research, development and demonstration projects, was set up to increase competitiveness of the companies working in the field of biomass (and other renewable energy) technologies in Upper Austria with an annual budget of around 2 million Euro. So far more than 37 energy R & D projects and 68 companies were supported, concerning for example: the development of a new combined pellets-log wood boiler, a biomass tri-generation plant and biomass condensing boiler.

"Oekoenergie-Cluster" – the network of 85 green energy businesses

The so-called "Oekoenergie-Cluster" fosters closer co-operation between companies in the renewable energy field, supports research and development, export, staff training and marketing. The O.Ö. Energiesparverband is responsible for the management of this network.