

4BIOMASS – Fostering the Sustainable Usage of Renewable Energy Sources in Central Europe - Putting Biomass into Action!

Basic Elements of the Austrian Energy Strategy

Final consumption of energy has almost doubled in Austria since 1970 and amounted to 1,106 PJ in January 2005. In the breakdown of consumption, mobility has the largest share with 35.83%, followed by space heating, cooling and hot water systems in buildings with 30.44 %; 16.20 % of final energy consumption is attributed to energy-intensive enterprises. Small and medium-sized enterprises, households and agriculture consumed 17.53 % in 2005.

Austria is committed, in accordance with the European Union's climate and energy package adopted in December 2008, to:

- increase the share of renewable energy sources in the gross final energy consumption to 34 % by 2020
- simultaneously reduce its greenhouse gas emissions in sectors that are not subject to emissions trading by at least 16 % by 2020 from 2005 emissions (for sectors covered by the EU Emissions Trading Scheme, an EU-wide reduction of greenhouse gases by 21 % based on 2005-figures has been decided upon. A path is also provided here.)
- increase energy efficiency by 20 % by 2020, as opposed to a business-as-usual scenario.

In April 2009 the road map (structure and time frame) for the Austrian Energy Strategy was presented in public by the Minister of Economic Affairs Reinhold Mitterlehner and the Minister of the Environment Niki Berlakovich in order to tackle those challenges. 150 stakeholders in 9 working groups proposed 370 appropriate measures which were condensed to 39 measure groups.

The main targets elaborated by the advisory expert groups are:

- stabilisation of final energy demand at the level of 2005 until 2020: 1,100 PJ. To reach this target a sectoral stabilisation as follows is necessary:
 - buildings: -10%
 - other consumption of small users: +15%
 - energy intensive consumers: +15%
 - transport: -5%
- increasing the share of renewables on gross final energy consumption to 34% in 2020 (2005: 24%)
- reduction of greenhouse gas emissions by 16% until 2020

The key points of the Austrian Energy Strategy were presented on 11th March 2010 by the Federal Ministry of Economic Affairs and the Ministry of Environment.

Based on the strategy's three pillars, which are security of supply, energy efficiency, and renewable energy, the Austrian Energy Strategy pursues the following direction: an improvement in energy efficiency at all stages of the provision, and the use of renewable energy.

The path to the targets – “energy packages”

- **energy efficiency package:** energy efficiency act, voluntary agreements or obligation for energy suppliers, best-practice of public authorities, energy management, energy concepts of enterprises, energy advice as requirement for subsidies
- **ecological tax reform:** integrated approach, no proposal for single tax, funding with revenues from emission certificates (EU emission trading from 2013 on)
- **energy spatial planning:** regionally optimised concepts
- **initiative for research, technology and innovation:** improvement of the conditions for European and international cooperation, energy efficiency in electricity transformation, distribution and usage: motors, smart PV, high efficient ICT, smart grids, smart metering; increased usage of renewables, CO₂-neutral agglomerations, from individual production to serial manufacturing, „technology lighthouses“
- **awareness, education, human resources:** campaigns, curricular, professional and advanced trainings
- **climate protection act:** binding definition of responsibilities of ministries and provinces

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- **building package:** new buildings: standard for „nearly zero energy buildings“, rehabilitation: from actually 1% to 3% renovation rate in 2020, introduction of contracting and energy services, socially balanced improvement of legal conditions, replacement of heating boilers, switch to renewables and district heating, quality control for energy passport of buildings
- **package for the production, services, SMEs:** optimisation, especially concerning electricity, energy advice offensive, financial incentives based on advice and energy management, tenders of public authorities based on „total costs of ownership“ principle (defined in a standard), obligatory energy concepts for companies with high energy demand, green ICT offensive: certification, IT-energy passport
- **smart grids and smart metering:** considered in regulation of electric network operators, intelligent energy systems, integration of renewables
- **mobility package:** re-orientation of transport and spatial planning, coordinated mobility concepts on the federal, provincial and municipal level, development of public transport services, especially „first and last mile“: synchronized timetables, commercial transport: bimodal traffic, feeder lines, mobility management: solutions for companies and municipalities, new framework for the stationary traffic, vehicle-related taxes based on ecological criteria, 10% renewables in transport fuels, introduction of e-mobility
- **renewables package:** hydro: until 2015 new plants with 3.5 TWh; 0.7 TWh from improved efficiency and revitalisation; wind: plus 2.7 TWh until 2020, photovoltaics: focus integration in buildings (“the building as power house”), priority of biomass use for heating, biomass electricity generation: plus 100 MW electric capacity, preferred with CHP technology, bio-methane strategy until 2011, rules to secure pellets supply, usage of waste heat, energy spatial planning to support district heating
- **securing fossil fuel supply:** diversification of import routes (nabucco, south-stream), domestic oil, gas production, storage, LNG, flow reversal
- **securing energy supply with powerful transport and distribution networks:** coping with decentral and fluctuating production, integration into the European market, expansion and modernisation of networks, expansion of district heating and cooling systems, uprating of energy storage