PROMOTING EUROPEAN PELLET HEATING SYSTEMS IN THE MARKET (PROPELLETS)


BUSINESS MISSION REPORT

By FRANCISCO PUENTE SALVE

With the support of:

14th March 2006
BUSINESS MISSION SUMMARY

PROPELLETS’ overall aim is to promote automatic pellet heating systems in several regional scenarios from the European Market, through both the demonstration of the technical-economic feasibility of pilot heating facilities and the integration of acquired experiences.

PROPELLETS Business mission objective was to involve key actors and increase their experience in the European biomass market (particularly in pellets issues), through providing a better knowledge on running facilities, encouraging their interest, and also favouring business contacts to fulfil the project objectives.

The business mission was organised in cooperation with the WSED held in Austria, but with its own objectives, schedule and activities. It was particularly directed to pellet-business firms, forest companies and associations, local energy Institutions, engineering companies and End-Users. The mission was organised by ESCAN with the assistance of the partners, and the participation was up to 37 actors from Asturias (Spain), Central Finland, South-West England and Italy.
The PROPELLETS business mission agenda was composed by:
- Technical Visits to biomass and pellets facilities (28th February).
- Assistance to “Pellets Forum” and the presentation of “Market development for medium scale pellets installations. Francisco Puente-Salve. ESCAN, SPAIN” (1st March)
- Meeting among PROPELLETS key actors from different countries (1st March) to share experiences
- Assistance to “Energiesparmesse”, the big Fair organised in Wels, with contacts to boilers and pellets manufacturers (2nd March)
- Organisation of specific business contacts and private meetings in the WSED and “Energiesparmesse”, between business mission people and pellets actors (2nd March)

28th FEBRUARY – BUSINESS VISITS

*Members of the Spanish group prepared for the business visits*
Visit to FROLING PELLETS BOILERS FACTORY

Boilers for pellets (10-25 kW), logs (20-70 kW), and pellets-elephantgrass-chips (28-1000 kW)

![Boiler and spare parts (heat exchanger and grill)](image)

Visit to a BUILDING COMPLEX HEATED BY PELLET-SOLAR SYSTEM in Salzburg

Power of the pellet boiler is 150 kW and the solar collector 40 kW. The system was also equipped with a multicyclon exhaust gas cleaner. The case demonstrated through several details that Austrian pellet - solar heating system designers have already practical experience and thus feasible solutions had been found.

![Biomass-solar heating system (150 kW + 40 kW)](image)

Visit to ONE FAMILY HOUSE WITH PELLETS BOILER AND THERMAL SOLAR

No photos
Boiler OKOFEN, with bag-storage, and solar collectors
Visit to BIOMASS CHP in Timelkam

Austrian Largest CHP plant fed with biomass.  
Biomass feeding (in heat): 49.7 MWt  
Steam produced: 440°C, 42 bar.  
Electrical Production: 15 MWe turbine, 95 GWh/year  
District heating: 15 MWt, 88 GWh/year  
Boiler is Fluid Bed

![Blocks Diagram and main parameters]

Visit to MULTIPRODUCTION COMPANY: DISTRICT HEATING, BIOGAS+GAS ENGINE, MINIHIDRO in Antiesenhofen

DISTRICT HEATING PLANT  
Production: 1500 kW, one boiler FROLING. Biomass with up to 50% water content
MINI HIDRO POWER PLANTS AND CHP GAS ENGINE

Visit to BIOMASSE HKW PELLETISING PLANT AND CHP PLANT in Ybbs (close to Linz)

The pelletising plant with capacity of 90 000 tn per year produces high quality pellets from raw-materials received from an Stora-Enso sawmill neighbouring the plant. 40 % of the material is received in moisture content of around 10% and 60 % of the material is wet and dried by utilizing heat from the CHP plant. Pellets are delivered both as loose truck loads and in small and large packs. Most part of the productions ends up to Austrian market.
The CHP plant burns bark and other wood residues coming from the sawmill. It consists of three boilers, 10 MW each, and a 5 MW steam turbine. Another 10 block with 2 MW electrical capacity was under construction at that time at the site. The concept utilizing sawmilling residues, CHP production and pelletising looks very attractive and effective. Still good process design and management skills are needed in order to make it function satisfactory.

Visit to PASSIVE BUILDING (MIVA Christophorus House)

The interest was to visit a building with low energy consumption: 49 kWh/m², in comparison with normal building that is 300 kWh/m², and a bio-climatic building is 75 kWh/m².
1st MARCH – PELLETS FORUM

Presentation on “Market development for medium scale pellets installations” (PROPELLETS). Francisco Puente-Salve. ESCAN, SPAIN (PowerPoint presentation attached)

Francisco Puente, PROPELLETS presentation

View on the room, PROPELLETS presentation (400 people, estimated)
2nd MARCH – BUSINESS CONTACTS AND MEETINGS

Many contacts were made among business mission participants and people from World Sustainable Energy Days and Energiesparmesse, estimated in 1000 bilateral contacts. ESCAN, JSP, RHPL and ETA favoured particular contacts between the key actors from their regions and companies represented in the events, considering specific interests.

Only a few pictures of the names and companies that have been contacted are showed in this report, as it was not possible to write on each business contact.

- Business contact to boiler manufacturers: KÖB (Austrian), Okofen (Austrian), Solarfocus (Austrian), KWB (Austrian), SHT (Austrian), Biotech (Austrian/German), Heizomat (Austrian), Lidner (Austrian), Fröling (Austrian), Perhoffer (Austrian), Bosh (Austrian), En-Tech (Austrian), Hargassner (Austrian), HDG-Bavaria (Germany).
- **Pellets production and distribution**: Hot’ts (Austria), Ökowärme(Austria), Genol (Austrian) Warmiss (Austria)

- **Pelletizer manufacturers**: Kahl (Germany), Zepi (Italy), Salmatec (Germany), Buhler (Switzerland)

- **Pellets bunker airbag**: PBA company Franz Hüthmair(Austria)

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