

Hands on District Heating Workshop 2011

In Austria Feb. 21st – Mar. 4th

Introduction: The annual unused biomass in Canada has an astronomic heating value and if only a very small portion is used, it has the potential to create in excess of 100 000 jobs. In Austria, a country with 8 mill inhabitants and only 84 000 sq km, the thermal biomass use employs 33 000 people.

Developments: In a recent Austrian Biomass district heating mission to BC a strong interest was shown by municipalities, school- and hospital- boards to make use of biomass to cut costs and create jobs in the area.

Objectives: This 10 day workshop will cover theory on a wide range of aspects related to district heating and will enable participants to go hands on with boilers and heating systems, to learn about possibilities for cost and emission reduction, chances for job creation and problem solving. It will offer a fair number of site visits with the opportunity to discuss the economics and why the projects were done in this particular way. The workshop should enable participants to consider all issues related to a biomass district heating project, evaluate them, collect all the necessary data and do rough technical and economic calculations of projects.

It will get participants in touch with experts that can give professional advice and support them even back home in Canada. It will also get them in touch with organisations experienced in financing such projects.

The workshop will enable participants to gain from the European know-how and help to avoid mistakes.

Preparation: Participants should prepare material for at least one possible project in their area. The Embassy in Vienna will supply basic information for proper preparations and start a dialog to assist with the research. During the workshop there will be many opportunities to discuss projects individually.

Please book your flights to Vienna independently: Arrival Sun. 20th of Feb. or earlier
Dep. Sat. 5th or later, if you like.

Planned overnight stays: (arr. 19th/)dep. 20th Feb. Vienna; Hotel Bellevue
arr. 20th/ dep. 25th Feb. Graz; Hotel Mercure
arr. 25th/ dep. 2nd Mar. Vienna; Hotel Bellevue
arr. 2nd/ dep. 4th Wels
arr. 4th/ dep. Open Vienna

Please let us know your arrival dates and confirm you rooms with us! We will place the reservations, you will have to confirm with your credit card to the hotels Bellevue & Mercure.

For all those, who want to arrive prior to Sunday, we recommend Hotel Bellevue:
We have some rooms on standby.

Let us know your time of arrival we can pre book the room standard (74€ for a single) or deluxe (94€/single room) and you confirm it with your credit card to the hotel.

Hotel Bellevue
Althanstraße 5
1090 Vienna, Austria
+43-1-313480

If you arrive on Sunday please let us know your exact arrival time.
Proceed to the hotel, we arranged room for luggage.

I will get in touch with each participant to discuss details and special requests.

Sunday Feb. 20th

15:00 (depending on plane arrivals in Vienna)

Hotel Bellevue.
Meeting of all participants
Introduction to the programme

Drive to Hotel in Graz
Hotel Mercure Graz Messe (72€/night)
A.R.F. Projektbaugesellschaft mbH
8010 Graz, Waltendorfer Guertel 8-10
Telefon +43 (0)316 826 300-150
Email: h2212-re@accor.com
Dinner

Monday Feb. 21st

Contact: Mr. Hubert Steiner

Landes Energie Verein Steiermark (Provincial Energy Association Styria)
+43 316 877 5825
h.steiner@lev.at

09:00

Welcome, introduction by Mr. Jilek (Energy Commissioner of Styria)

09:30

Presentation of LEV - (Provincial Energy Association Styria),
Quality Management Programme for heat plants "qm heizwerke"

09:30

Presentation of LEV, Quality Management Programme "qm heizwerke"

10:00-13:00

Training Part 1

- BIOS Energy Systems
- Biomass fired heating systems
- Principles of district heating vs. decentralized heating
- Feasibility studies
 - structure and tasks of feasibility studies

13:00-14:00

Lunch

14:00-18:00

Training Part 2

- Parameters for system optimization:
 - heat demand inquiry
 - fuel considerations (quality, price calculations, logistics)
 - district heating network
 - heating plant
 - side constraints for CHP plants
 - CHP technologies
 - heat recovery, flue gas cleaning
 - cost effectiveness calculations and sensitivity
 - emission estimate
 - guiding values

Tuesday Feb. 22nd

09:00-18:00

Wood chip logistics and contracting excursion

10:00

Biomass trade centre Leoben; wood and wood chip logistics

11:30 350 kW Wood chip boiler in a Container plant
Presentation on wood chip logistics (agricultural chamber of styria)
Lunch

14:00 District heating plant Gleinstätten (2.500 kW boiler, 1. 300 m2 solar thermal
plant, wood chip logistics)

17:00 Visit of a regional restaurant/tavern.

Wednesday Feb. 23rd

09:00-13:00 Training Part 3

- Engineering, tendering
 - procedure of detailed engineering
 - procedure of tendering and selection of suppliers (contracting)
- Plant construction
 - procedure of plant erection
- System components

13:00-14:00 Lunch

14:00-18:00 Training Part 4

- Design faults
 - possible design short commings, weak points and impacts on investment and operating costs
- Commissioning
 - start-up and commissioning - important steps
 - phase of operation (before and after end or warranty)
- Summary

Thursday Feb 24th

09:00-13:00 Visit boiler manufacturer BINDER (Hands on training, company presentation)

13:00-14:00 Lunch

14:00-16:00 Excursion to Biomass plant Hitzendorf (700kW + 150kW; 2.000m district
heating network);
Excursion to a small contracting project and Information on short rotation
forestry
Example movie on short rotation harvest:
<http://www.youtube.com/watch?v=69xiGmfX8Q8>

16:00-18:00 Mr. Lamers (Ministry of Environment) Biomass strategy briefing

Friday Feb. 25th

09:00-13:00 Visit boiler manufacturer KWB (Hands on training, company presentation)

13:00-14:00 Lunch

14:00-17:00 Company visit HERZ Energietechnik

17:00-18:00 Company presentation of TB Ing. Riebenbauer

Saturday Feb. 26th

Optional site-visits:
Waste incineration and district heating Spittelau in Vienna (tbc)
St. Margarethen am Moos site visit: agricultural waste & biomass gasification
with combined power plant and district heating system
Blaue Lagune - 100 prefabricated houses with heating systems.

Sunday Feb. 27th

all-day

Vienna – sightseeing

Monday Feb. 28th

8:30-12:00

Company visit: Polytechnik (Boiler producer 1-20MW.)
Hainfelderstraße 69
2564, Weissenbach

Visit district heating system at Rehab Center Alland.

12:00

Lunch

Contact: Mr. Roland Kautz

Pummergeasse 8-10

3002 Purkersdorf

+43 2231 600 5580

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roland.kautz@bundesforste.at

13:00-18:00

Österreichische Bundesforste ÖBf “Austrian Federal Forests” (owned by the Federal Government but operating like a private company) are Austria’s largest forest owner. They are profitable, offer consulting work, supply wood biomass, and have a close relation to district heating operators.

- Introduction to the Austrian Federal Forest Organisation
- The European policy framework of Renewable Energy Sources
- Austrian concept of Natural Resource Management
- Strategies and structural development of ÖBf
- Implication for a forest management organisation
- Show case: The supply chain concept and related activities of ÖBf
- Economic and logistic drivers and criteria
- Market development, value chain, biomass price calculation, wood chip logistics from forest to energy and power.

Optionally : study biomass logistics at 66 MW biomass plant in Vienna

Tuesday Mar. 1st

AGRAR PLUS GmbH

Bräuhausgasse 3

3100 St. Pölten

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DI Josef Petschko

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9:00

Arrival at AGRAR PLUS – they are an organisation of the Province of Lower Austria, assisting municipalities in proper biomass use. They are interested to help municipalities to become energy self sufficient, using local resources and skills and to obtain a high degree of independence in operating such

plants. Lower Austria has now more than 500 district heating systems in operation.

- Evaluation of ideas and projects for renewable energy
- Calculate projects economics
- Support the selling of energy
- support the project implementation
- Advise/assist on financing
- Assist with support programs
- Offer operator models
- In case a municipality or an operator does not want to form his own company the province provides a legal company one could use.

9:15 – 10:30	Welcome, introduction by the management
10:30 – 12:30	Diskussion of Canadian projects regarding the services provided by AGRAR PLUS; snacks
12:30 – 13:45	Hafnerbach: 200 kW, 5.000l waterbuffer, 275m network Herbst 2010.
13:45 – 15:15	Hofstetten II: 2 large appartement blocks, one factory and one municipal building. 400 kW, 13.000l waterbuffer and 700m network.
15:15 – 16:30	Rabenstein: three separate facilities: <ol style="list-style-type: none">1. 100 kW two appartement blocks & fire brigade2. 300 kW municipal building and 14 houses. 800m network3. School4. Interconnection of all systems planned
16:30 – 17:00	Return to Vienna
18:00	Reception at the Ambassador's Residence Lannerstraße 27 1190, Vienna
Wednesday Mar. 2nd	Contact: Mr. Rene Kausl +43 2713 8424 planung@kausl.com
9:00-17:00	Kausl Energie Systeme - a small company and operator/part owner of a dozen district heating systems. Mr. Kausl has been participating at the CanBio 2010 Mission in BC. <ul style="list-style-type: none">• They develop the project• They negotiate contracts with district heating participants,• Organize the financing• Supply woodchips,• Operate systems,• Monitor /control, take care of the operation of the systems.• Operate back up units in case of failures
-optional- Evening	RZ Pellet plant - CHP and district heating site-visit Drive to Wels – Hotel Check-in
Thursday Mar. 3rd	
9:00-18:00	WSED - World Sustainable Energy Days congress and Energy Fair with almost one thousand exhibitors in Wels
18:00	Canada reception

Friday Mar. 4th

all-day

WSED congress and Energy Fair in Wels

Optional visits: District heating systems; combined biomass and solar/thermal; modern Photovoltaic systems for sophisticated thermal and electrical applications, thermal use of waste (gasification) etc. Please let us know your specific interests.

We might have to do minor adjustments to the program but the basic content will be unchanged.

Contact: Roland Rossi

Trade Commissioner Service | Service des délégués commerciaux

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Companies:

Binder

KWB

Bundesforste

Agrar Plus

Kausl

Fair/Congress organizer:

Energiemesse Wels & WSED

Version 2.Feb.2011