

16.9.2015

RUSWES 2015 – WOOD ENERGY SOLUTIONS TOUR

Joensuu region, Finland 21.-24.9.2015

RUSWES 2015 is an event giving an insight into state-of-the-art in the bioenergy business and waste management sector tailored for Russian markets. The biomass-based energy production and waste management systems are presented from raw material supply chains to energy production and energy delivery in a practical SHOW-HOW manner. The program is based on site visits, study tours and technology presentations complemented with presentations by leading experts from research and industry.

RUSWES 2015 is focused especially for:

- Russian municipalities planning to utilize local bioenergy sources in energy production or to improve the energy efficiency of current district heating systems
- Forest industries and logging companies planning to expand their business by selling waste wood for energy production
- Entrepreneurs planning to invest in district heating business or using wood residues in their own energy production
- Entrepreneurs planning to start new business in the energy or waste sector
- Municipalities planning to develop their waste management system (landfill construction and management, waste collection system, landfill gas collection for bioenergy)
- Researchers and other experts on energy and the forest and waste management sectors

Registration is required; please see further information and the deadline for registration below.

Welcome!

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Monday, 21st September - Biomass in Large-scale Energy Production

Place: Joensuu Science Park, Temple of Challenge (Länsikatu 15, Joensuu)

8:30 Coffee and registration

9:00 Opening of the RUSWES 2015 Tour – Mini seminar Chair: Prof. T. Karjalainen / LUKE

Welcome words

Mr. T. Tahvanainen / Joensuu Science Park

9:10 Introduction of Joensuu Region and the Oil-Free
North Karelia Program

Region Mayor P. Hyttinen

9:30 Wood Fuels in the Finnish Energy System

Dr. L. Sikanen / LUKE

10:05 District Heating and Cooling – The Key to Cost-Efficient Bioenergy Systems

Dr. A. Nuorkivi / Nuorkivi Consulting

10:40 Introduction to the Russian Heat Reform

Dr. E. Lopatin / LUKE

11:10 Reliable and Cost-efficient Fuel Supply – The Key Factor for Successful Bioenergy Investments

Dr. L. Sikanen / LUKE

11:40 LUNCH (Restaurant Puisto)

12:40 Fortum Power Solutions - energy related solutions
globally

Mngr. T. Niinemäe / Fortum Power & Heat

13:00 Fortum Joensuu 200 MW Combined Heat and Power Plant and the First Commercial Wood-Based
Pyrolysis Oil Production Plant in the World
(Iksenvaarantie 2)

Power Plant Mngr. T. Partanen &
Mngr. T. Niinemäe / Fortum Power & Heat

13:30 DEPARTURE TO SITE VISITS

13:45 Visit in Fortum CHP / Pyrolysis Oil Production Plant

14:20 Visit in John Deere Forestry Joensuu factory – The World's Largest Forest Machine Factory
(Pyhäselänkatu 20)

Plant Manager J. Haapasalo

16:30 Return to Hotels in Joensuu

19:00 Conference Dinner Hosted by North Karelia Regional Council

Place: Restaurant Teatteriravintola, at the City Hall of Joensuu (Rantakatu 20)

Tuesday, 22nd September - Bioenergy in Local Economy

8:30 Departure to Site Visits

9:15 **SITE VISIT: Eno Energy Cooperative – Heat Entrepreneurship Business Model**

Place: Presentations in Eno Village, Kunnantie 2

The Success Story of Eno Energy Cooperative Manager U. Hassinen

- evolution of the business model and network
- from pioneering & market making to profitable and established business - key success factors

10:00 State of Heat Entrepreneurship Business in Finland Mr. A. Puhakka

10:20 SHOW-HOW: The Heat Entrepreneur Business Model in Practise Manager U. Hassinen

- heating plant in the middle of the village
- demonstration of energy wood harvesting and fuel logistics
- harvesting energy wood from thinnings

12:15 LUNCH in Joensuu Science Park (Restaurant Puisto)

13:15 **Shifting to Bio in Small and Medium Scale Installations**

Place: Joensuu Science Park, Temple of Challenge (Länsikatu 15, Joensuu)

Company Presentations:

- **13:15** **KPA Unicon Ltd.** / Business Development Manager S. Krylov
- **13:45** **Volter Ltd.** / CEO J. Haapakoski

14:15 COFFEE

14:40 **Benefits of Using Consultant in Designing of Biomass Plant and District Heat System** Mngr. J. Jukola / Etteplan Ltd.

- Feasibility study / Tendering process

15:10 **Reliable Fuel Supply – The Key Factor for Successful Bioenergy Investments**

- **15:10** Forest Energy Resources in Russia Dr. E. Lopatin / LUKE

15:35 Company presentations:

- **15:35** **Kesla Ltd.** / Mngr. I. Yli-Ruka
- **16:00** **Antti Ranta Ltd.** / Mngr. K. Zaitseva

16:45 **Travel to Koli** (Stop at Kolinportti for refreshments)

17:50 Visit in Top of Koli Hill in Koli National Park

18:30 **Pellet heating - Koli Spa Lotus & Cottages** – Accommodation in Koli Spa Premium Cottages

19:30 **Dinner** at Alamaja, hosted by Joensuu Regional Development Company Josek

Wednesday, 23rd September - Excursion Day

7:45 Departure from Koli

8:55 Breakfast in Nurmes ABC (at own expense)

SITE VISITS: Municipal Heating in Town of Nurmes

9:15 Nurmeksen Lämpö Oy, Vinkerlahti heating plant - Mr. Paavo Parviainen

- 4 MW wood chip boiler
- Annual use of wood chips 23,000 m³, heat production 18.000 MWh

10:00 Most of the jobs in bioenergy production establish in fuel supply chain! Energy wood supply as a vital branch in forest contractor's business model – KME Ltd. / Mr. Matti Pikkarainen

- Company presentation / harvesting company specialized on energy wood business
- Demonstration: logging residue harvesting from clear-cutting area

12:00 LUNCH at Restaurant Bella (Porokylänkatu 18)

SITE VISITS CONTINUE: Training of Harvesting Contractors & Small-scale Electricity Production from Wood Chips

13:15 Capacity Building by North Karelia College Valtimo – Skills for Forest Machine Operators, Truck Drivers and Forest Road Constructors / Mr. Harri Savonen

- leading Finnish education centre for forest machine operators, forest truck drivers, forest road constructors and lumberjacks, active international cooperation
- pioneer in developing and utilizing simulators in forest operator's training

15:00 Small CHP in Kuittila Farm by Volter Technology / Mr. Jouni Korhonen

- 40 kWe + 100 kWth wood chip gasification unit
- Power and heat for the Kuittila farm (160 milking cows + 160 calves)
- Wood chip storage and dryer

16:30 Return to Koli

18-20 Opportunity to relax in Koli Spa premises

20:00 Workshop and dinner in Kolin Alamaja

Thursday, 24th September - Waste Management and Heat Energy Business Training

7:45 Departure to Joensuu

8:00 Breakfast at Kolinportti

9:15 **Smart and Environment Friendly Waste Management and Biogas Utilization**

(Place: Kontiosuo Waste Centre, Kontiosuontie 11)

9:15 The Municipal Waste Management System in Joensuu Region and Development of Waste Logistics M. Kauhanen / Puhas Ltd.

9:40 Joensuu Recycling Centre and Experiences on Assembling Gas Collection System for Old and New Landfill Director T. Karhu / Puhas Ltd.

10:30 Company presentations:

- **10:30** Designing and Managing of a Landfill Mr. K. Sormunen / Ramboll Ltd.
- **11:00** Technology for Smart Waste Logistic Mr. M. Kharinskin / Molok Ltd.

12:00 **LUNCH in Joensuu Science Park / Karelia (NKUAS)**

Waste Group: Restaurant Forum, Linnunlahdentie 2

District Heat Group: Sirkkala Campus Restaurant, Sirkkalantie 12)

OPTION A: Utilizing Waste for Energy

(Place: Joensuu Science Park, Meeting Room Minerva, Linnunlahdentie 2)

12:50 The Bio10 Ltd. Biogas Plant Concept: Heat, electricity and fertilizers from biogredable waste Mngr. Mika Juvonen

13:20 Company presentation: Mr. A. Averine / Doranova Ltd.

- Biogas Plants for Industry, Farming and Waste Water Treatment Plants

OPTION B: TRAINING - Wood energy based energy production

(Place: Sirkkala Campus, Sirkkalantie 12)

12:45 **Energy production technologies in different scale**

13:30 **Biomass fuel supply chains for solid biofuels; wood chips and pellets**

- From small to large scale
- Technologies, quality, prize and supply

14:00 **Coffee**

14:15 **Local energy production, basic questions for action models and finding solutions**

- Scaling, investment, ownership

16:30 **Co-operation and next steps**

17:00 **End of education period**

Lecturers: Asko Puhakka, Anssi Kokkonen and Markus Hirvonen
Interpretation Finnish - Russian: Ljudmila Leinonen

Accommodation

Participants are expected to cover their own accommodation expenses. Please note, that from Tuesday to Thursday (22–24.9.), it is recommended to book accommodation to Koli. To book your accommodation, please contact the hotels and other accommodation providers directly.

A quota of rooms has been preliminary reserved for the RUSWES2015 guests as follows:

	Single (€) / night	Double (€) / night	Contact	
Accommodation in Joensuu	Hotel Cumulus Joensuu Quota of 8 rooms	97,00 (incl. buffet breakfast, sauna)	115,00 (incl. buffet breakfast, sauna)	joensuu.cumulus(at)restel.fi Tel. +358 13 511 2100 Address: Kirkkokatu 20, Joensuu Reservation code "WES2015". Reservations to be made by 4th September 2015.
	Hotel Greenstar Joensuu Quota of 10 rooms	72,50 (breakfast 8€/person, parking space 8€/night if needed)		info(at)greenstar.fi Tel. +358 10 423 9390 Note: reservations are not at this price via web services like Booking.com etc. Address: Torikatu 16, Joensuu Reservation code "tiedepuisto". The bulk reservation is valid until 5th Sept 2015.
	Finnhostel Joensuu Quota of 3 rooms	2 persons in a double room 76€/night 1 person in a double room 50€/night Breakfast, wifi, sauna and gym included.		finnhostel(at)islo.jns.fi Tel. +358 50 4084587 Address: Kalevankatu 5B, Joensuu Reservation code "WES2015". Reservations to be made by 4th of September.
	Holiday Linnunlahti Camping Houses, cabins Quota of 10 apartments	1-2 persons: 170 € / apartment for 2 nights 3-4 persons: 245 € / apartment for 2 nights Note: Prices do not include breakfast. Breakfast 7–9 € / person.		sales(at)linnunlahti.fi Tel. +358 400 333 133 Address: Linnunlahdentie 1, Joensuu Reservation code "WES2015". Reservations to be made by 4th of September.
Koli 22.-24.9.2015	Koli Spa Lotus & Cottages Houses, cabins Quota of 10 apartments	PURNU 1, 2-4 persons, 150€/night PURNU 2, 3-6 persons, 170€/night VIP-villa, 3-6 persons 190€/night (incl. spa, sauna)	info(a)kolispa.fi Tel. +358 44 790 0070 Address: Purnuniemi, Koli Reservation code "WES2015". Reservations to be made by 6th of September.	

Registration

Registration is required; please see the deadline for registration below.

	RUSWES 2015 – Wood Energy Solutions
Mon 21 st September	Mini seminar and site visits
Tue 22 nd September	Mini seminar and site visits
Wed 23 rd September	Site visits
Thu 24 th September	Site visits and training
Fee	100 €/day, 250 €/3-4 days (+ VAT 24 %)
Registration	Via this link
Deadline for registration	9th September 2015
Language	Interpretation Finnish – Russian, materials in English or in Russian

The registration fee includes mini seminars, site visits, transportation during the programme, training, lunches and coffees, and a conference dinner. Participants are expected to cover their own accommodation expenses. To book your accommodation, please see the pages below.

The programme is subject to change.

See also the Barents Forest Forum programme for 17 – 18 September 2015:

<http://www.metla.fi/tapahtumat/2015/barentsff/>.