

# Electricity consumption during 2010

# Plans and reality

- Plans was following
  - Grain dryer electricity measurement – certified installer came after the drying period
  - Viikki cattle house – agrotechnology installer started to work in february
  - Maaninka cattle house – measurements started last autumn
  - Broiler house – measurements are going on
  - Pork production – measurements are going on

# Viikki cattle house

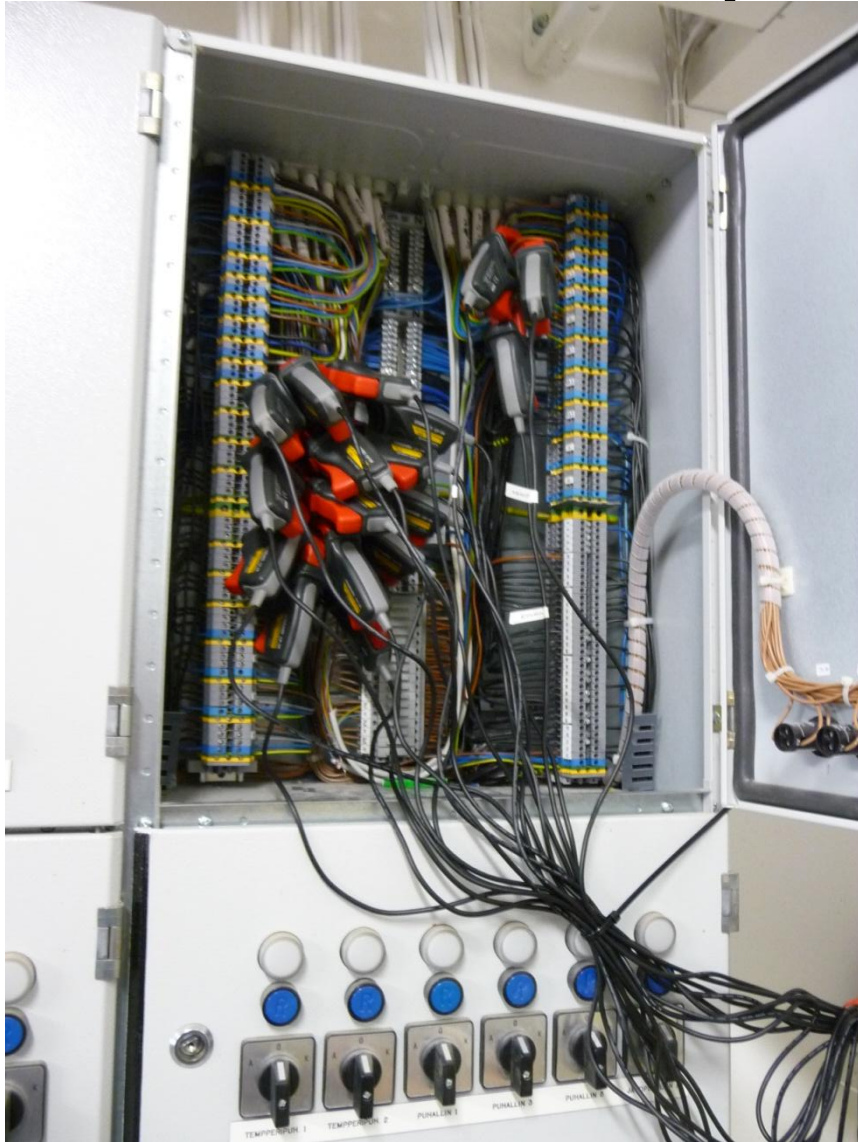
- The main electricity center is complicated and the meter assemblies need good knowledge to find out the proper measuring lines
- Some of the machine electricity consumption can be measured at the power plugs
- The measurements will be started during spring 2011
- Still more than 1 year time to make the measurements, results comes in time



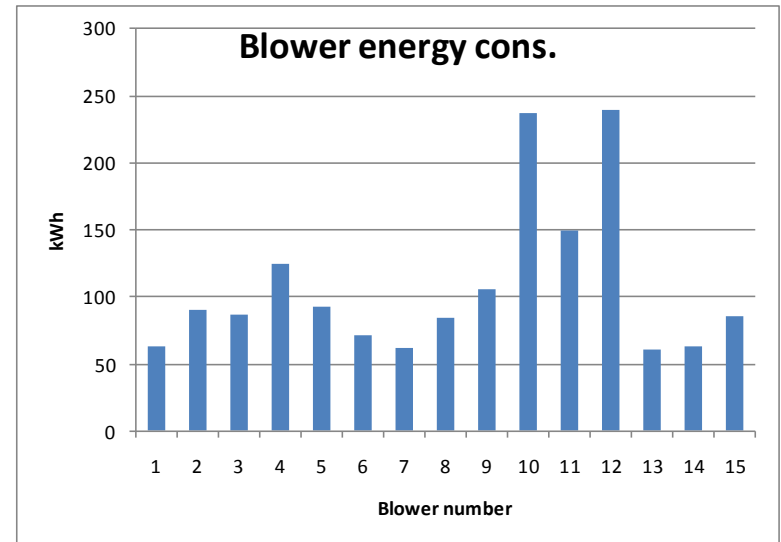
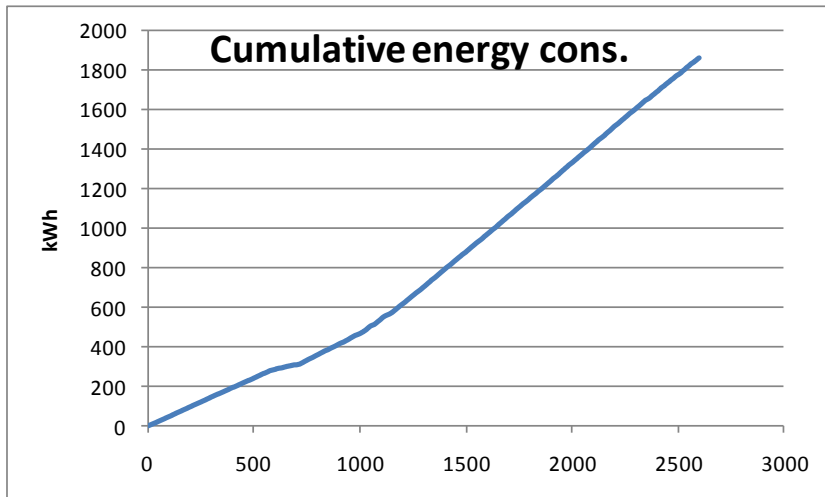
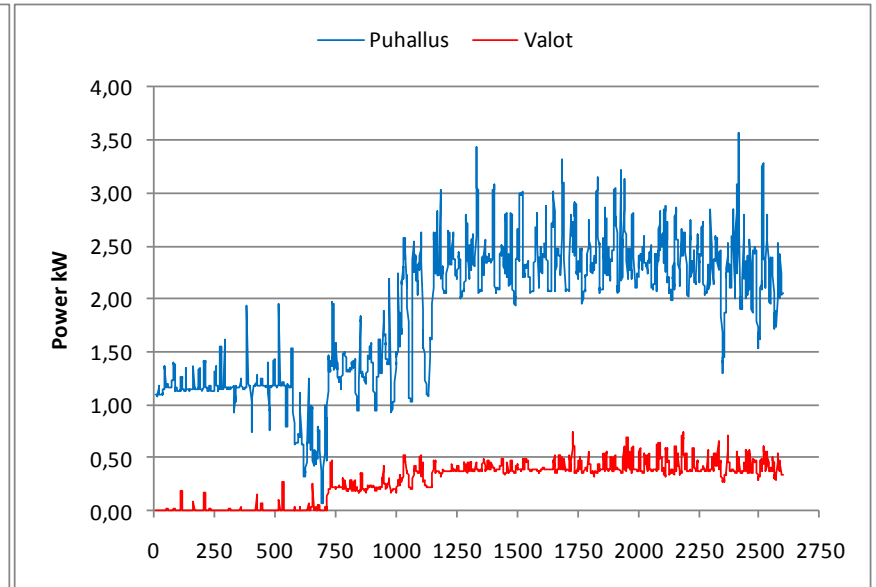
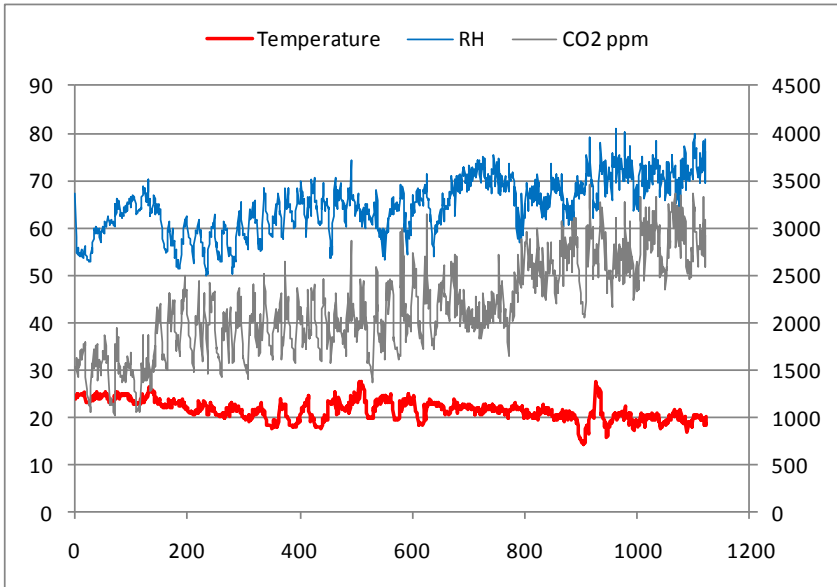
# Broiler house

- Ventilation and illumination electricity consumption is going on
- The measurements will last one year
- Besides this also heat losses are recorded
- After next summer the whole year analysis can be done

# Electricity measurements



# Results



# Results

<b>Feed and water</b>		
water	198587	l
feed	113527	kg
- wheat (bought)	31190	kg
-start concentrate	12000	kg
- finnish concentrate	10500	kg
- crop	59837	kg
<b>Meat</b>		
- produced meat	48339	kg
<b>Broilers (39 days)</b>		
-arrived	28400	
- dead	1026	
-to slaughter house	27374	
<b>Litter</b>		
- peat	30	m3
<b>Manure</b>		
- amount	80	m3
<b>Water</b>		
- washing water	16500	l
<b>Energy consumption</b>		
- heating	49700	kWh
- blowers	1618	kWh
- illumination	245	kWh
	51563	kWh

<b>Heat</b>	49700 kWh		210494 MJ
<b>Electricity</b>	1863 kWh	3,6 MJ/kWh	6707 MJ
<b>Feed</b>			1950729 MJ
<b>Arrived broilers</b>	3692 kg		<u>30644</u> MJ
		Sum	2198573 MJ
<b>Meat</b>			
- produced meat	48339 kg	8,3 MJ/kg	401213,7 MJ
<b>Energy ratio</b>			<b>0,18</b>

# Pork production

- Feeding machine and milling energy consumption started last autumn
- Besides this also heat losses are recorded
- One year consumption can be analysed after next summer







This material has been produced in ENPOS project. ENPOS is acronym for *Energy Positive Farm*.

The project partners are

- University of Helsinki, department of Agricultural Sciences – Agrotechnology
- MTT Agrifood Research Finland - Agricultural Engineering
- Estonian University of Life Sciences

Project home page is at <http://enpos.weebly.com/>

The project is financed by the EU Central Baltic IV A Programme 2007-2013

This publication reflects the authors views and the Managing Authority cannot be held liable for the information published by the project partners.

**ENPOS** Energy Positive Farm



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