

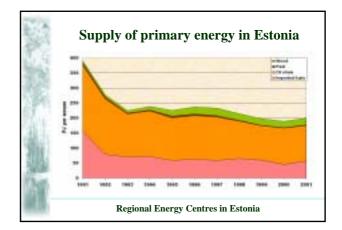
Regional Energy Centres in Estonia

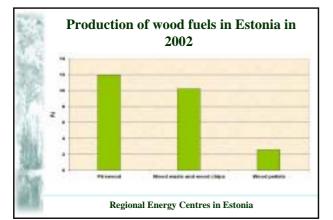
➤ Organisation

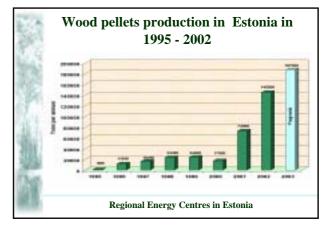
Regional Energy Energy Centres in Estonia is nonprofit organisation established in June 1999 to continue the activities of energy centres that had been founded in the framework of the EU PHARE Project "Regional Energy centres in Estonia"

> Objective

The objective of the Regional Energy Centres is to promote energy economy in Estonian regions in accordance with the Estonians energy and environmental policy and the principles of sustainable development



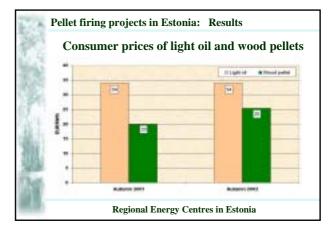




1.8	Pellet firing projects in Estonia: SIDA Demo East 2001	10.0	Pellet firing project	cts in Estonia	: Descriptio	on 1
A	Wood pellets firing projects in Estonia have been initiated by Environmental Technology of Sound (MTO) in Sweden and Regional Energy Centres (REC) in Estonia.		Boiler house location	Kiltsi Basic School	Leie Basic School	Kunderi str. in Rakvere
A	The projects have been implemented with financing provided by SIDA Demo East funds.	1.1	Existing boilers	Thermia H20-16	De Dietrich GT 306 GT 306	Thermia H21 NOVA H26 NOVA
A	The specific aim of the demonstration programs (Demo East) is to make it possible for purchasers in the Baltic States, Poland and North-West Russia to test and gain experience from Swedish equipment in the environment and energy sectors. Demo East finances 50 per cent of the costs of		Converted boilers	H20-16	GT 306 (was rebuilt into boiler GT 309)	H21 NOVA
	equipment and a small training program when the equipment is taken into operation. The rest of the investment costs, building – and consulting costs, are paid by the client. At three different sites in Estonia:Kiltsi, Leie and Rakvere,	rogram when the equipment of the investment costs, re paid by the client.	Technical solution	Installation of pellet burner, silo, pellets transport system, automatic control equipment. Ash removing equipment was included		
24	light oil-fired boilers have been converted to pellet firing.	28	Installed additional equipment		Flue gas fan	Flue gas fan New chimney
10.0	Regional Energy Centres in Estonia Regional Energy Centres		ntres in Estonia	1		

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P		in Estonia: Results
	Site	Consumption, t/y
	Kiltsi	111
1	Leie	78,3
ALC: NO	Rakvere	95,5
There.	Total	284,8
	Regional	l Energy Centres in Estonia



ģ	Boiler house location	Kiltsi Basic School	Leie Basic School	Kunderi str. in Rakvere
	Supplier of pellet burners	NE	Naturenergi	AB
2	Burner capacity, kW	200	150	250
i.	Planned annual heat production, MWh	490	470	500
H.	Investment cost, SEK	380 000	370 000	420 000
191	In operation from:	D	ecember 200	1

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Estonia: Results
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Pellet firing projects in Estonia: Results

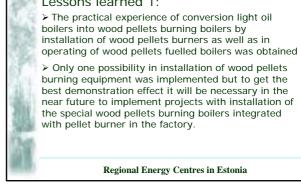
Emissions reduction in 2002

	Emissions reduction, t/y		
Site	CO2	SO2	
Kiltsi	130,7	0,33	
Leie	93	0,23	
Rakvere	106,6	0,27	
Total	330,3	0,83	

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Pellet firing projects in Estonia

Lessons learned 1:



Pellet firing projects in Estonia

Lessons learned 2:

> To avoid problems in operating of pellets burning and existing equipment in the future the careful inspection of technical situation of existing equipment in the boiler house must be carried out before boiler conversion. The existing boiler must be suitable for installation pellet burner

The quality of wood pellets is an important factor for good operation of pellets burning equipment. There have been problems with high content of the fine particles in the wood pellets. Precautions have to be taken against crushing pellets during storage filling procedure

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