



Tartu Regiooni Energiaagentuur
Tartu Regional Energy Agency



**RE
GREEN**
Regional Policies
Towards **Green** Buildings



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Complex Renovation of Small Town DH – Example of Elva

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District Heating in Estonia – 2010*

- 60% of the population used DH
- 151 out of 226 local municipalities
- 287 boiler houses
- >1447 km of DH pipeline
 - Natural gas 44%
 - Wood fuels 25%

*According to National Audit Office Estonia

District Heating in Estonia – 2013 (I)

Average price of MW·h of heat **83,6 €/ (MW·h)**

Median price of MW·h of heat **87,2 €/ (MW·h)**

For smaller companies –
70% of costs are made on fuels
(natural gas; shale oil)*

*Estonian Competition Authority. Aastaraamat 2011.

Direct Regulations – DH Company

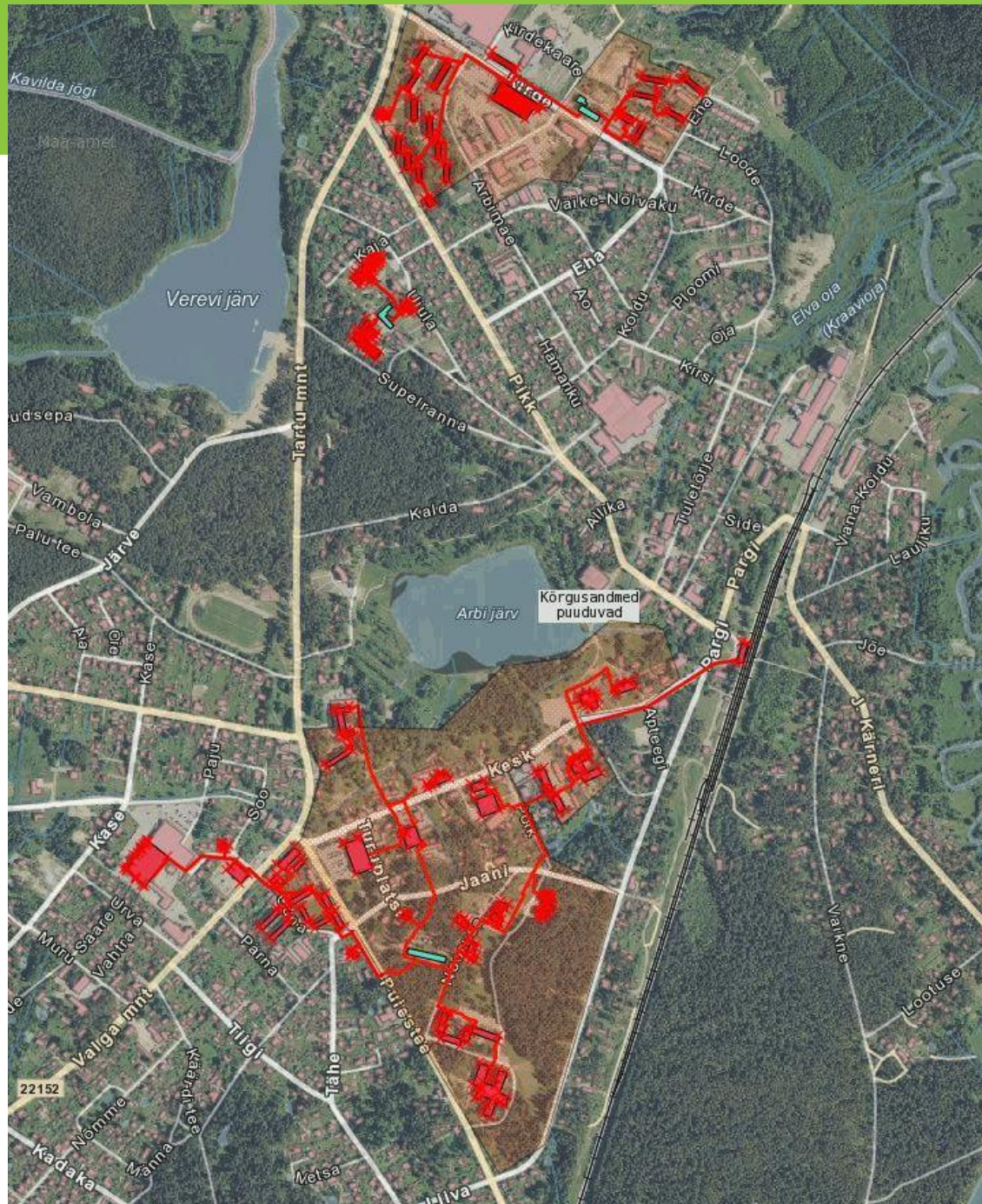
- District Heating Act – Basic Rules
- Estonian Competition Authority - Price Regulation

Direct Regulations – Local Government

- Local Government Organisation Act – Organisation of Housing and Utilities
- Emergency Act - obligation to Organise the Continuous Operation of DH Network

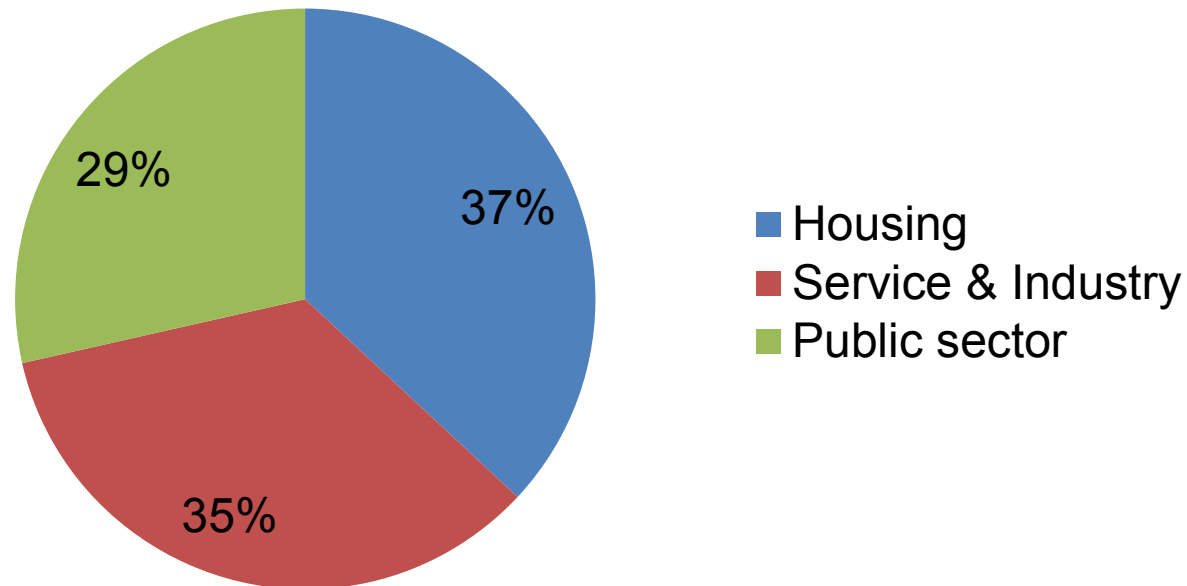
DH in Elva

- Managed by OÜ Elva Soojus
- Shares 100% owned by town of Elva
- One DH network divided between 3 locations
 - Nooruse
 - Kirde
 - Haigla



DH in Elva

- Housing – ~ 32 apartment buildings + 2 private households
- Service & Industry – 12 buildings
- Public Sector – 8 buildings



DH in Elva – DH Network

DH Network	Heatable surfaces, m ²	Consumption MWh/year*	Losses, MWh/year*
Kesklinna	59817	9502**	940**
Kirde	19030	3209	441
Haigla	3202	1092	179

* Calculated from the hourly temperature data of 2010, that has been normalized using base degree days

** For the Kesklinna heating network, the actual full year data was not available, therefore the estimated values are used.

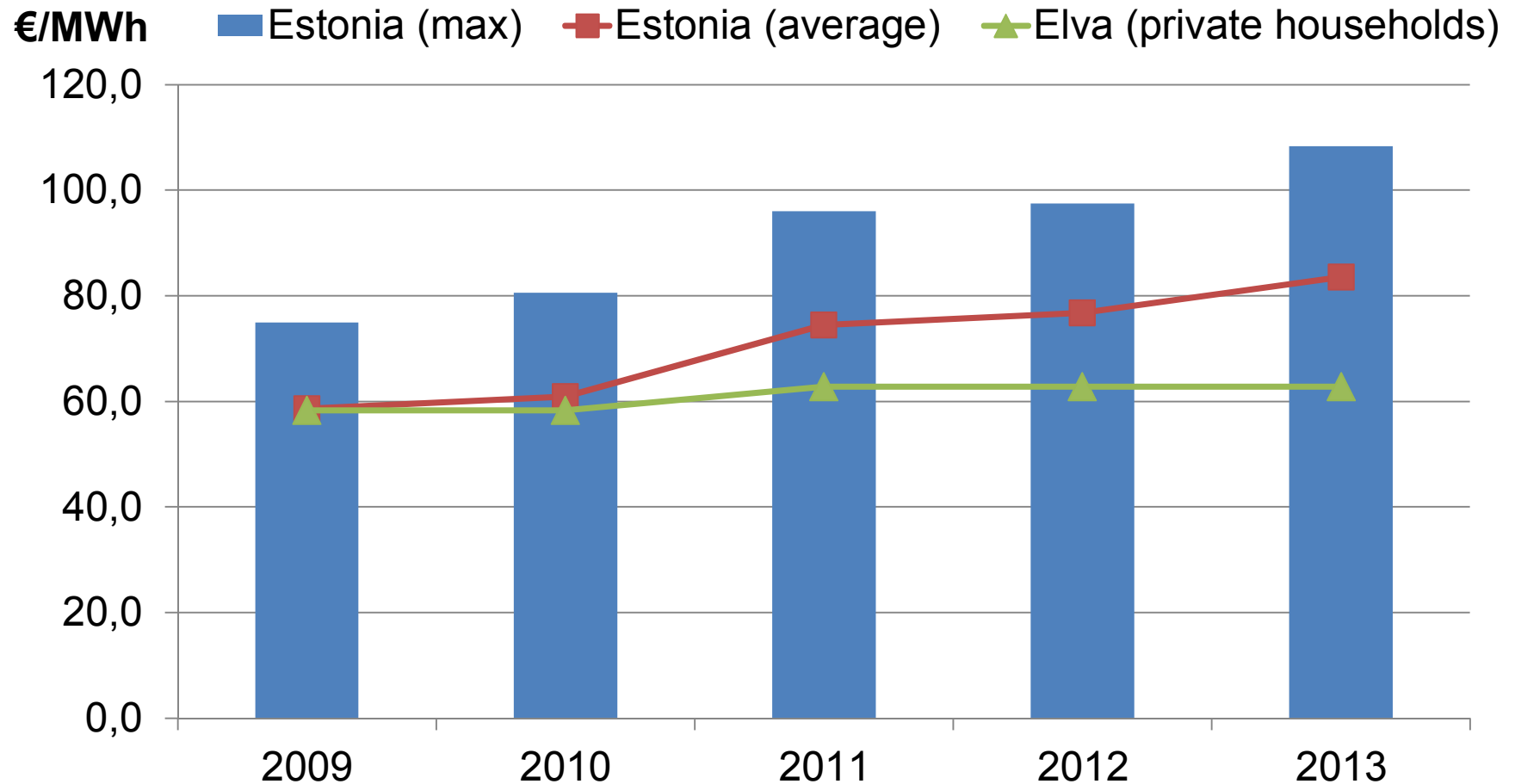
Municipality of Elva and DH

- The Local Government has actively supported the development of DH
- Financial Commitments were distributed among the LG and the DH company
- Different heat energy prices for households and legal entities

Supporting the DH

Investment	Year of completion	Investment, EUR	Subsidy, %
Kirde DH pipeline I	2005	114 807	0
Kirde boiler plant	2006	327 666	90
Kirde DH pipeline II	2006	150 775	78
Nooruse boiler plant	2007	600 957	54
DH pipeline to Murumuna kindergarten	2008	42 769	0
Kesklinna DH pipeline	2011	703 909	50
Haigla boiler plant (to oil shale)	2000	46 655	41
Haigla boiler plant	2012	268 399	90
	Total	2 255 938	60

The Results I



* Data used in the graph originates from Elva Soojus AS and The Estonian Competition Authority (www.konkurentsiamet.ee)

The Results II

From a total of 32 apartment buildings, **9** have been renovated.

The Results III

- The losses in the DH distributing network constituted in the price of heating must **not be** greater than:
 - 2013 – 19%
 - 2014 – 18%
 - 2015 – 17%
 - 2016 – 16%
 - **from 2017 – 15%**

* Soojuse piirhinna kooskõlastamise põhimõtted. <http://www.konkurentsiamet.ee/file.php?21182>

**The investments made were essential for
maintaining reasonable price/quality
ratio!**

Acknowledgement

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www.woodenergyproject.eu

www.elva.ee



CENTRAL BALTIC
INTERREG IV A
PROGRAMME
2007-2013



Thank you for listening!
Any questions?