



Pakri neem

Pakerordi pank

Maja tee

Lahepere laht

Pakri ps

Leetse pank

**Paldiski**

Rae

Kersalu

Tallinna mnt

Rae põik

Soo me pois te tee

Paldiski laht

Laoküla

Põllküla

# Alexela Group – an Estonian „family business“

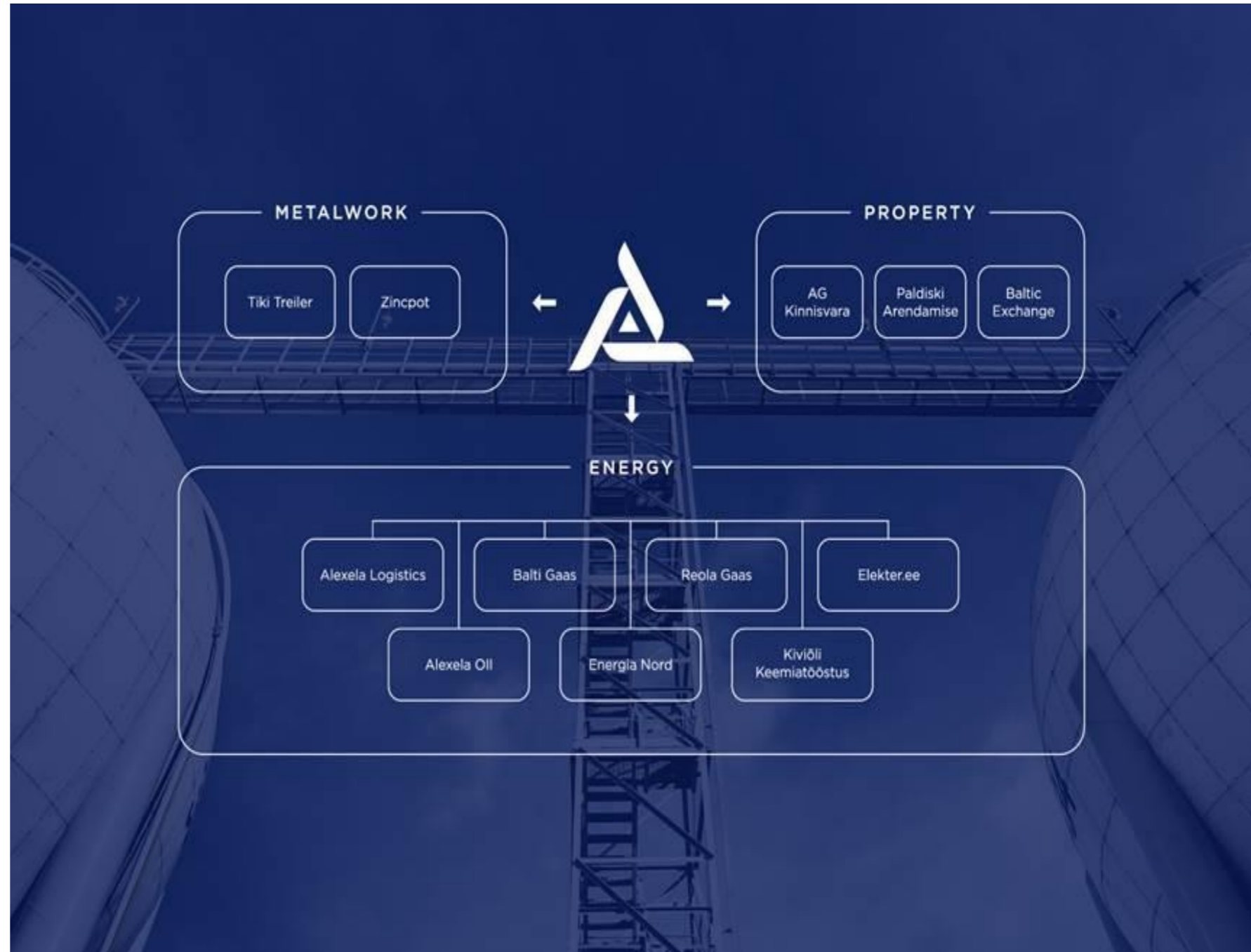


## Key facts of Alexela Group

**OÜ Alexela Group**      Operating since 1990  
**Revenues:**            238,3m EUR (2014)  
**EBITDA:**                21,8m EUR (2014)  
**Employees:**            approx. 1'100

## Structure

Product volumes	per annum
Oil and petrochemicals	7 mil. tons
Oil shale oil	100'000 tons
Road fuels (incl. LPG)	129 mil. litres
LPG (non-transport)	6'000 tons
Electricity	170 GWh
Natural gas (incl. LNG)	25 mcm
Car trailers	16'000 pieces
Galvanizing	11'000 tons



# Alexela at Paldiski



Paldiski Tsingipada



Alexela Terminal



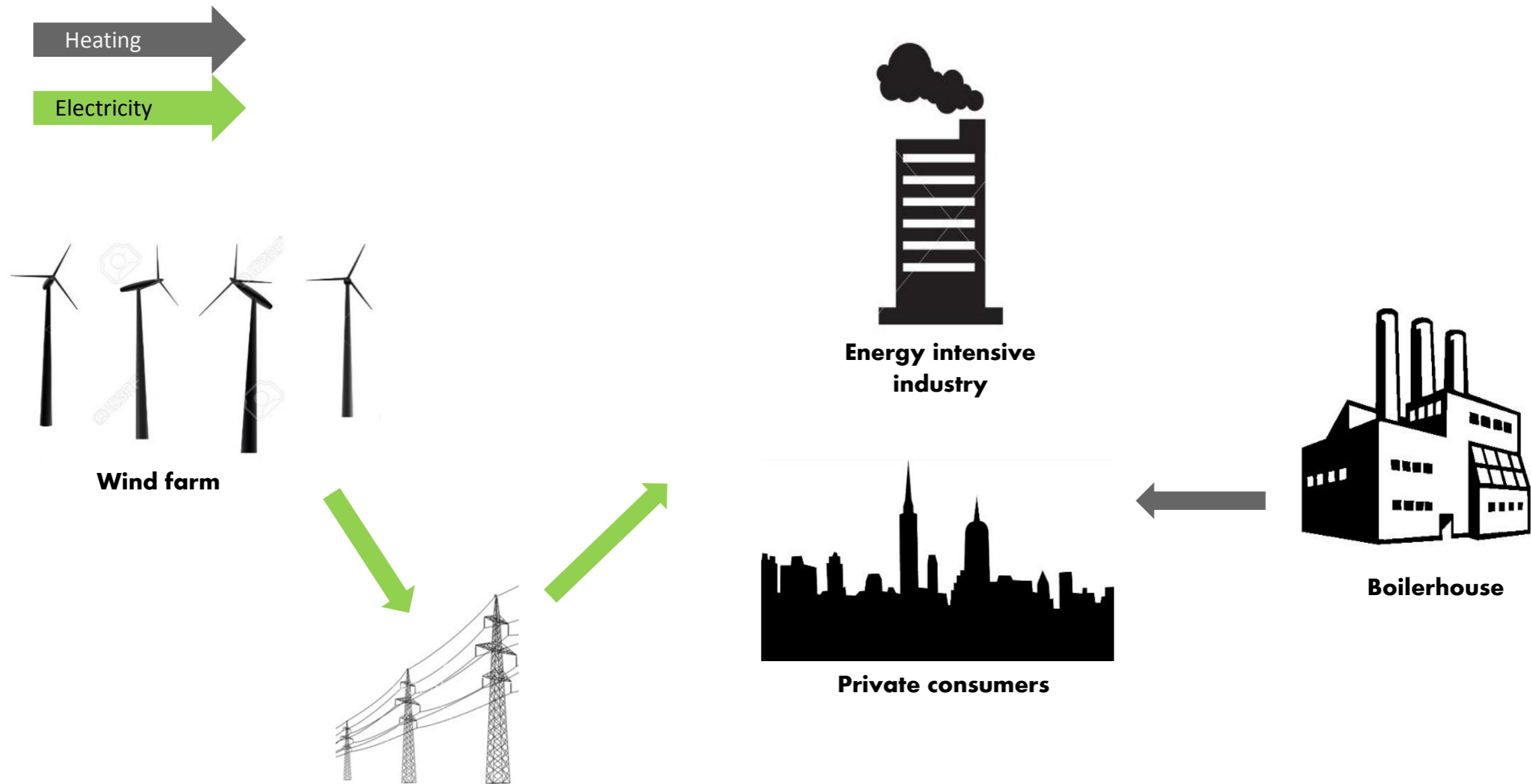
Paldiski Arendamise AS / Pakri Plaza



Balti Gaas



# Paldiski energy supply today

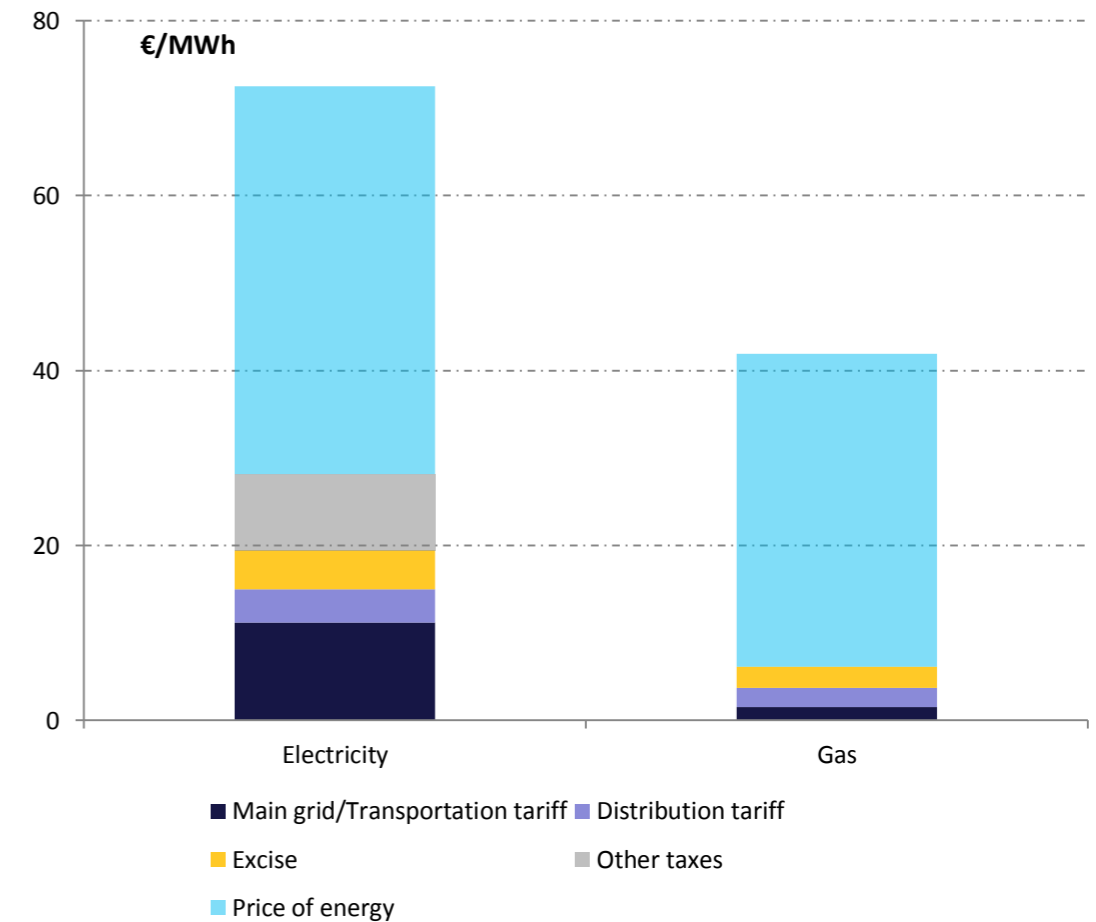


# Estonian energy situation today



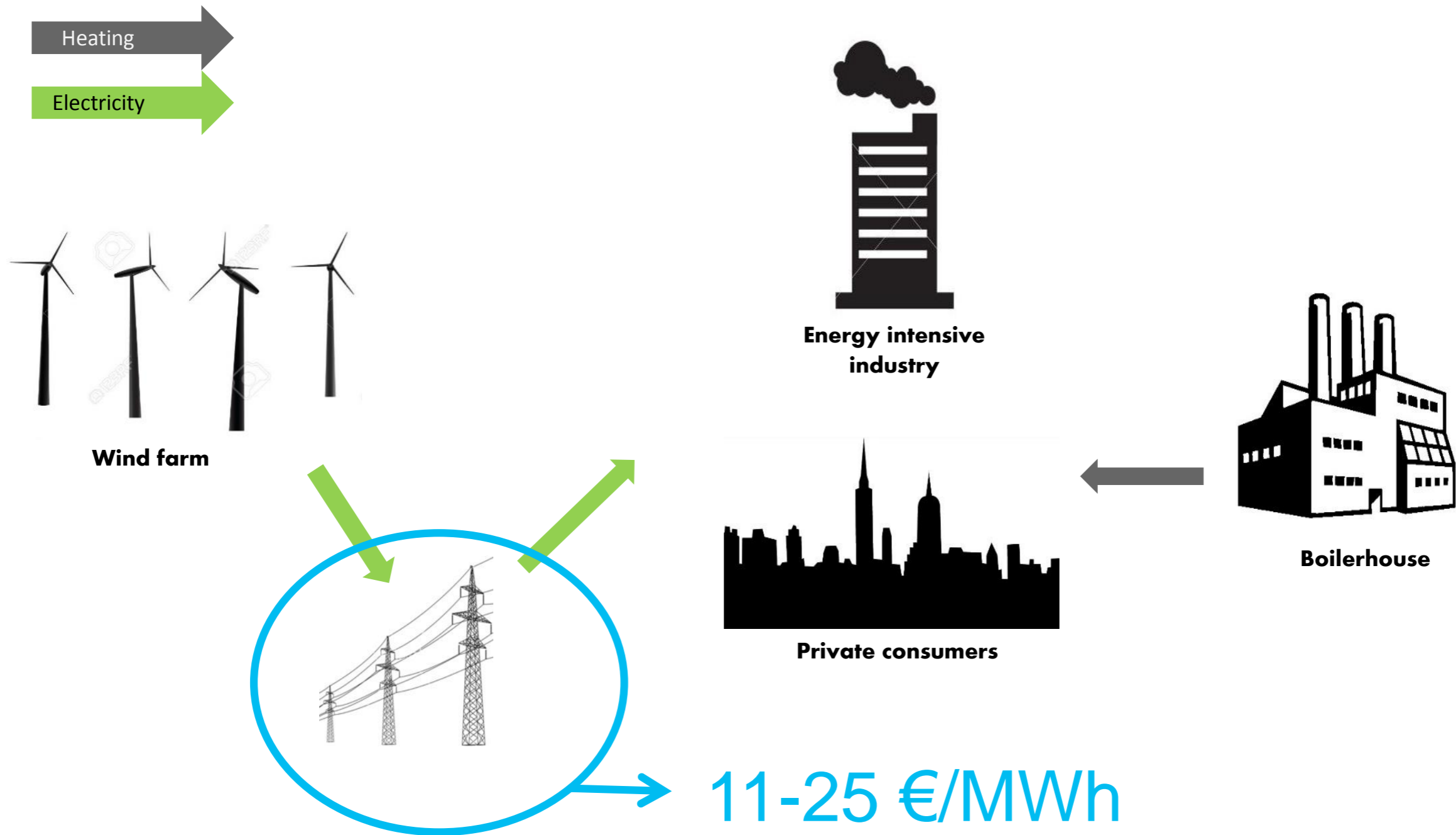
• According to Estonian Electricity Industry Association, harmonized energy price

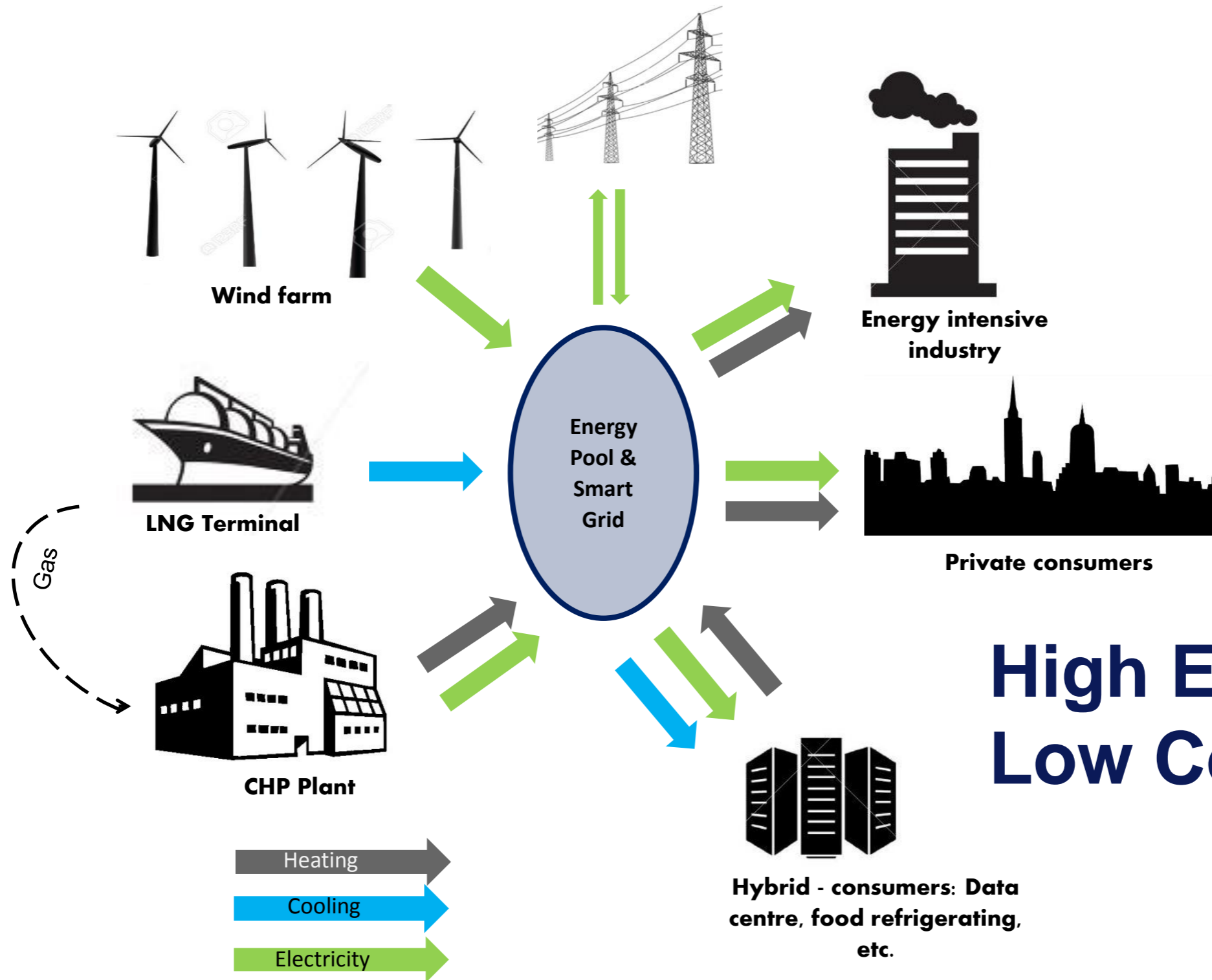
Electricity cost per unit €/MWh	Sweden	Germany	Austria	Finland	Estonia
Energy	40,0				
Transportation	2,0	1,0	6,8	7,0	10,8
Renewable energy charge	-	0,8	4,2	-	8,7
Excise	-	2,0	0,7	-	4,5
Other	-	0,5	0,1	-	-
<b>TOTAL</b>	<b>42,0</b>	<b>44,3</b>	<b>51,8</b>	<b>47,0</b>	<b>64,0</b>



- Source Competition Authority 2014 current prices
- Price of energy NordPool and Eesti Gaas

# Paldiski energy situation today





## High Efficiency Low Co2

## Technical parameters

**TRACTEBEL Engineering**  
GDF SUEZ

### Re-gasification

- 0,7 – 3,84 MCM/day

### Un-loading

- $\leq 12\ 000\ \text{m}^3/\text{h}$
- $\leq 175\ 000\ \text{m}^3\ \text{LNGC}$

### Re-loading - LNGC

- $500 - 5\ 000\ \text{m}^3/\text{h}$
- $1\ 500 - 75\ 000\ \text{m}^3\ \text{LNGC}$

### Re-loading – Truck

- $\leq 75\ \text{m}^3/\text{h}$
- 2 loading bays

### Storage

- $160\ 000\ \text{m}^3$



FEED and permitting is such that there is a possibility for a second  $160\ 000\ \text{m}^3$  tank, another 2 truck loading bays and re-gasification for up to 13 MCM/day.



## Technical parameters

### Number of engines

- First stage - 6

### Power capacity

- 10 MW per engine

### Heat produced

- 10 MW per engine

### Startup speed

- 15 sec for 20% load
- 85 sec for full load

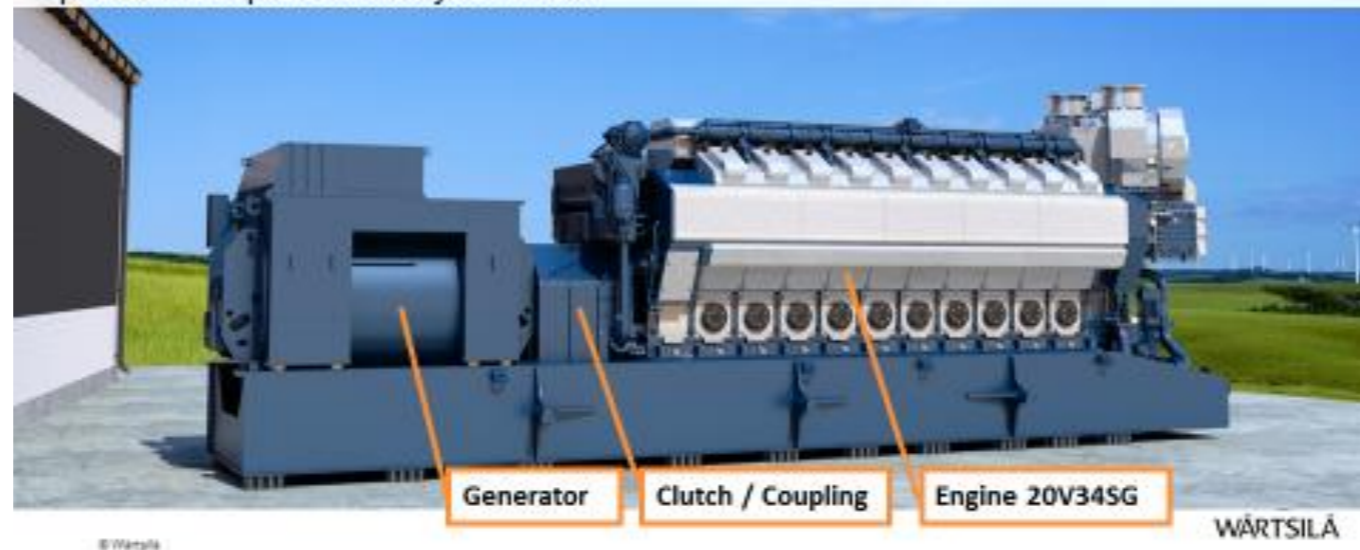
### Size of the plant

- ~11 000 m<sup>2</sup>

### Advantages using an integrated Synchronous Condenser

When active power is not needed and while the prime mover is in stand-by mode voltage control and reactive power support can continue in synchronous condenser mode

- No additional voltage control infrastructure is needed at the plant connection point
- The machine inertia support stabilizing the power system during disturbances, load fluctuations or variability of renewable generation output
- A synchronous machine produce a high amount of reactive power for a short time period in response to a system fault



The plant will be developed in modules, so there is „unlimited“ enlargement opportunities



- kogukonna kaasamine – energeetikas tuleb mõelda suurelt ja kaugele, ainult nii saab luua tõhusat ja tarka lahendust
- konkurentsivõime – reaalmajanduse arendamiseks ja Eesti kui ka tööstusinvesteeringuteks atraktiivse asukoha loomiseks on vältimatu regioonis konkurentsivõimelise energiasisendi taastamine
- energiapoliitika – turumajandus energeetikas lakkas normaalselt toimimast riigiabi ja ebareaalse keskkonnapoliitika tõttu, asendusinvesteeringuteks vaja luua uut stabiilsust ja ettenähtavust
- regulatsioonid – rohkem paindlikkust nii struktuursetes kui maksupoliitilistes küsimustes
- väljakutsed - senise turukorralduse ja võrgulahenduste paindlikkus