



Tampereen  
**SÄHKÖLAITOS**

Electricity 1888

District heat 1964

Natural gas 1986

## From fossile fuels to renewable energy

TAMPEREEN SÄHKÖLAITOS  
NAISTENLAHDEN VOIMALAITOS

GE Edison Award: Award of Excellence 2007

Tampere Power Utility  
Business Development  
Mika Pekkinen



## Far-sighted Energy Policy in Tampere since 1882



- 15.3.1882 first electric light in Europe was switched on in the Finlayson Cotton Factory in Tampere
- One of firsts municipally owned Power Utility in Europe was founded in 1888
- Start of cogeneration District Heating in 1964
- Gas line from Russia to Tampere in 1986
- Tampere Power Utility Key Figures 2009
  - Sales of Electricity: 1,6 TWh  
Ø market share in Finland 2 %
  - Electricity Distribution, 130 000 customers, 2,1 TWh  
Ø 5th biggest network operator in Finland
  - District Heat: 5000 customers, 2,0 TWh  
Ø 3rd biggest DH operator in Finland
  - Gas: 69 industrial customers, 248 GWh
  - Use of fuels 4,3 TWh and CO2 emissions 943 500 t





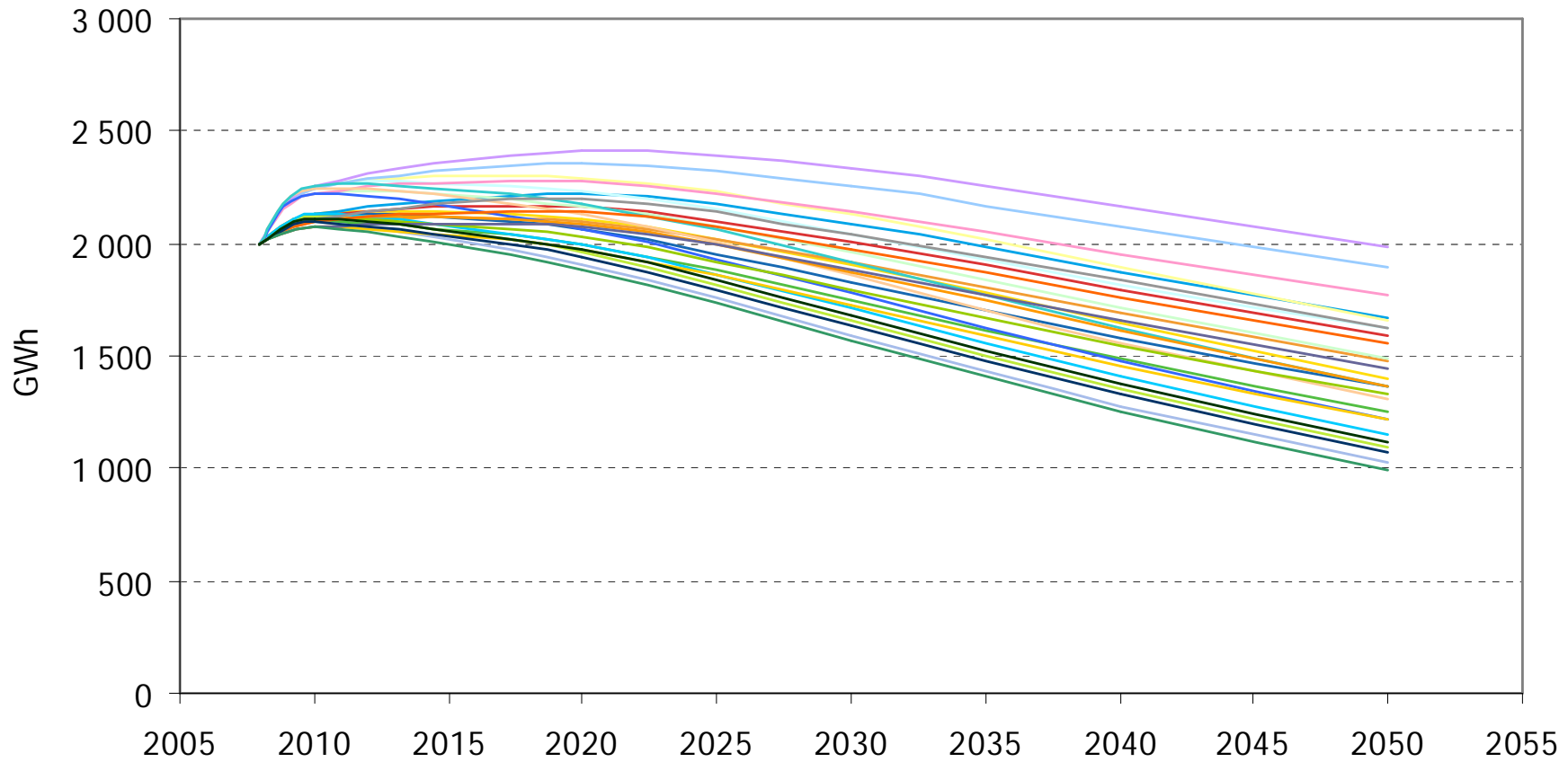
# District Heating Network

- market share 90%





District heat demand prognoses : - 20 - 40%  
(energy efficiency, heat pumps, global warming, distributed production)





## From fossile fuels to renewable energy

### Our vision 2030

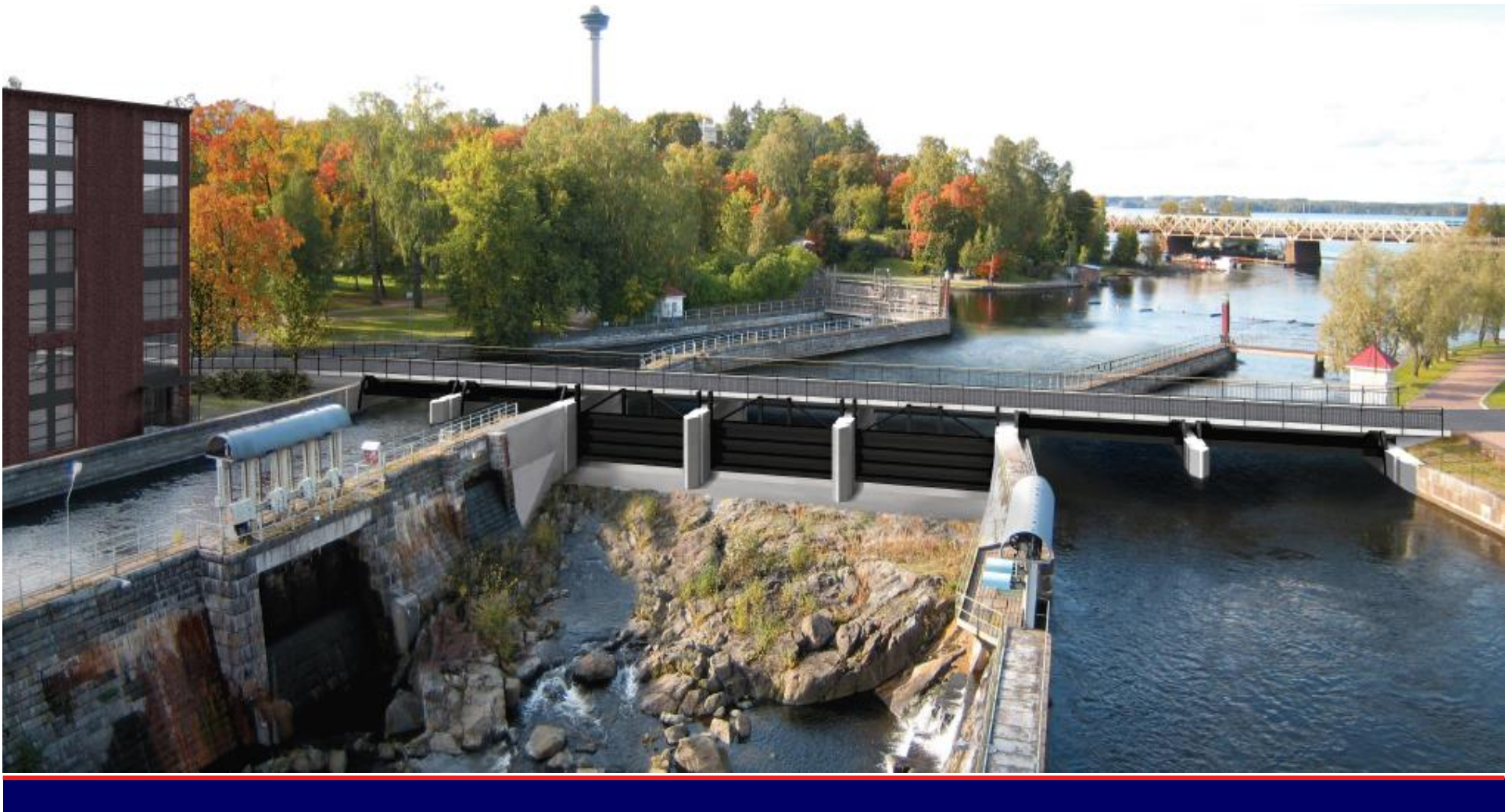
- Reduce our emission more than 50 %
- Increase the amount of renewable energy at least to the level of 40 %

### Our goals 2010 - 2030

- We have to renovate our existing power plants to be capable to use only biomass or biogas à 1000 - 1500 GWh
- We have to take the full advantage of our own hydro power plants
- We have to increase our ownerships on both Onshore and Offshore Wind Power companies à 200 GWh
- Waste burning plant building project with cooperation Regional Solid Waste Management Ltd à 50 - 70 MW
- Large scale heat pumps to exploit the waste water heat à 2x18 MW



# More Hydro Power

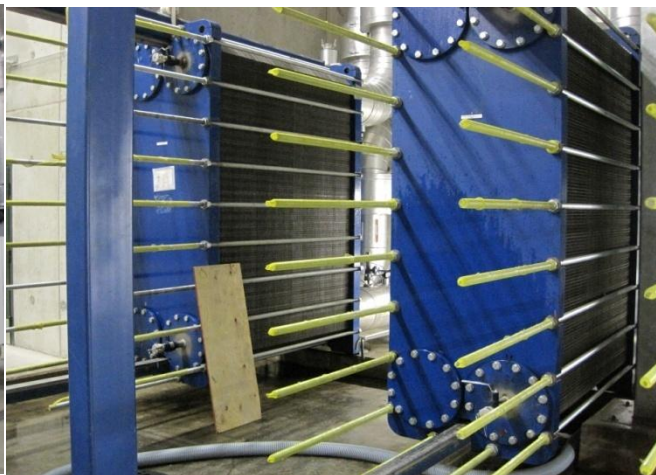


# More Wind Power





# Heat pumps using waste water heat in DH & DC





# Use of Fuels and emissions 1964 - 2030

