

DH planning & development in Aalborg

Mr. Jesper M. Larsen, Aalborg Forsyning,
Head of Energy - Utilities, Municipality of Aalborg

Practical examples from Aalborg, Denmark – in new areas / in general

District Heating in Aalborg

2020

100.000+ households

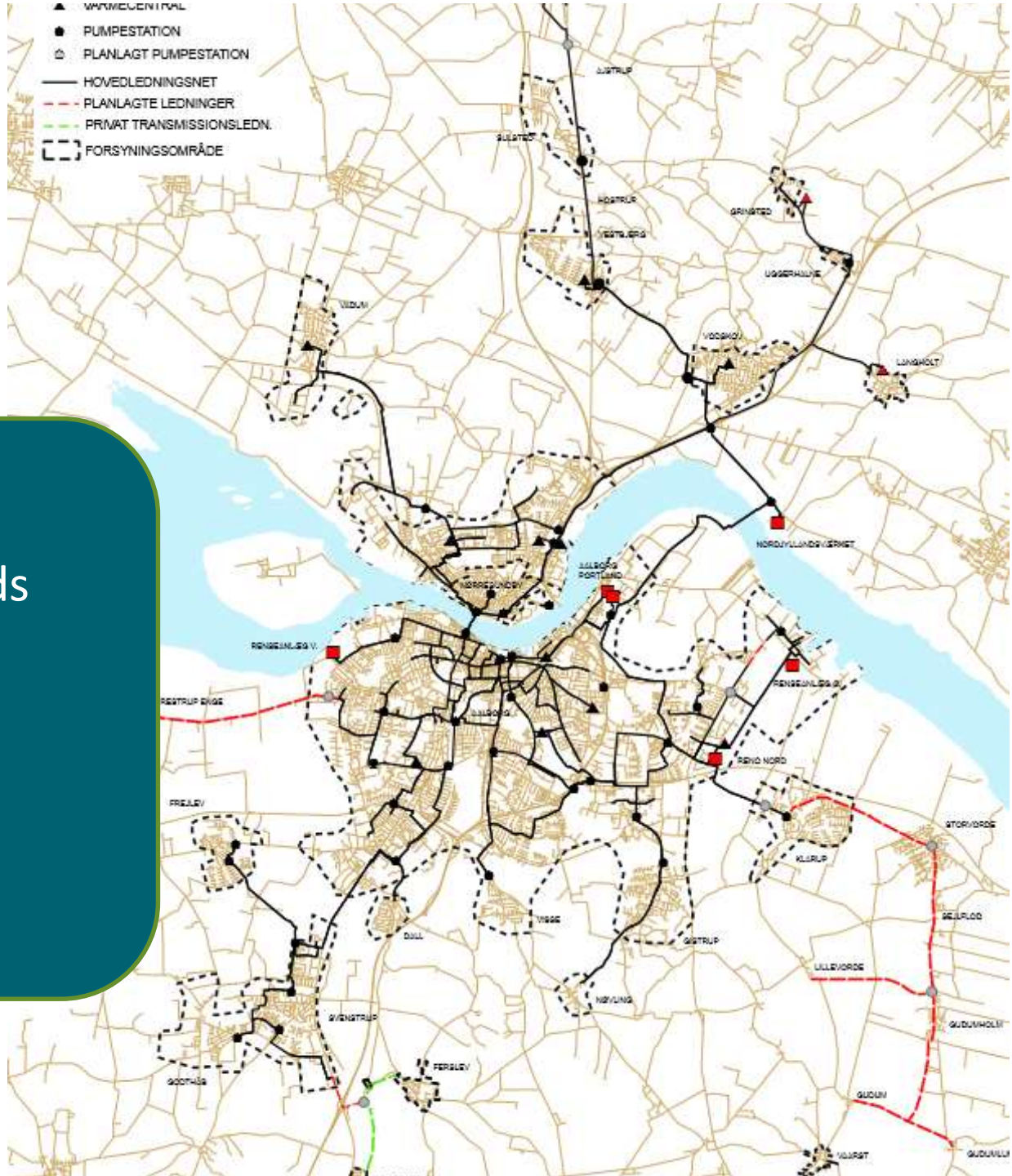
43.000+ meters

13 mil.+ m2

Sales: 39 mio. m3

Ca. 1550 km pipes

Heat losses: <17%



The green DH transition in Aalborg



Coal



Surplus heat



Waste

2020



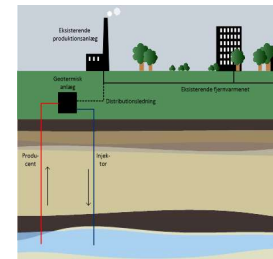
Heat pumps



Surplus heat



Electric boilers



Geothermal



Waste



Wind



Storage



Biogas / oil

2030



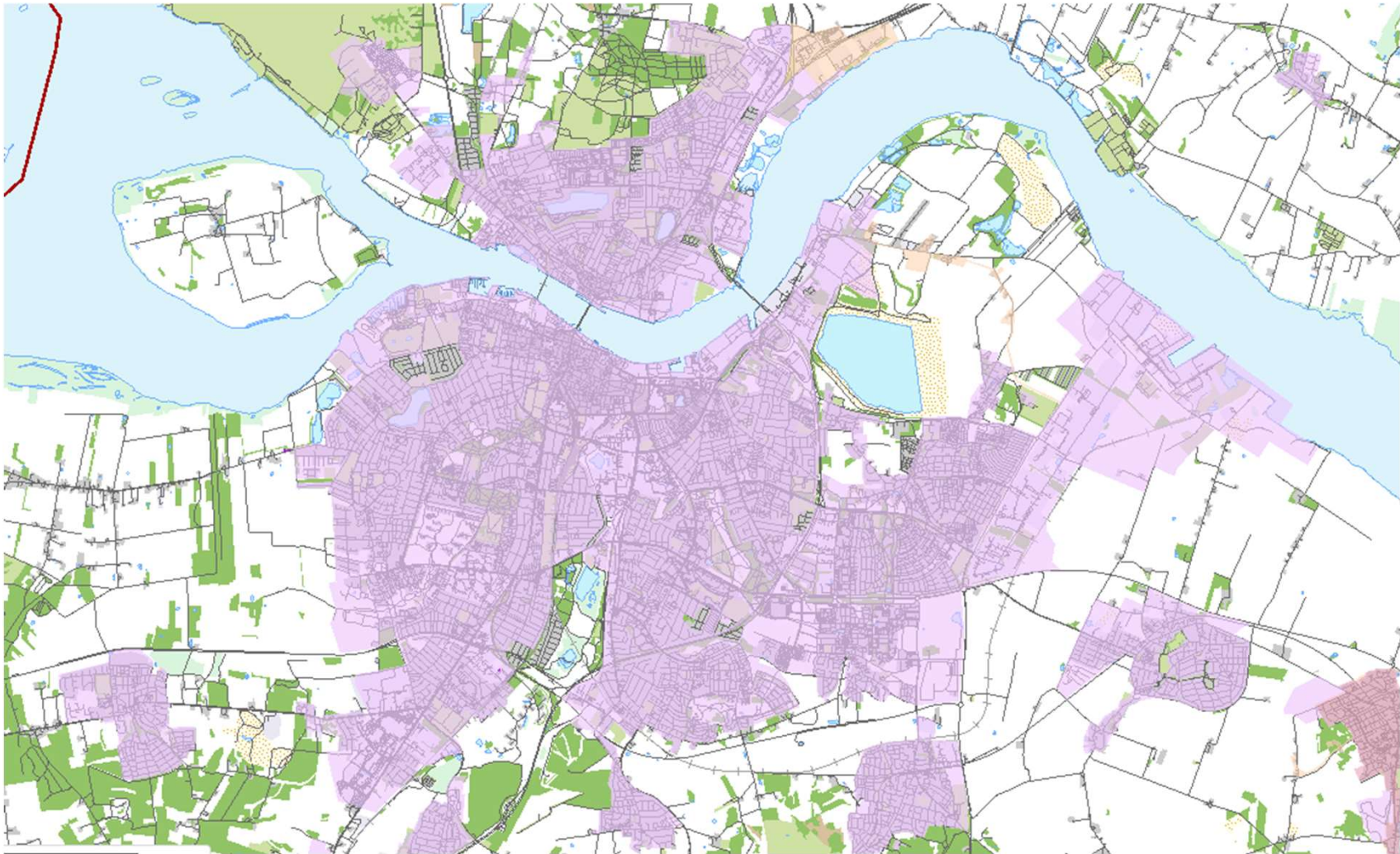
<https://youtu.be/Qm7cc9AYcRk>

Development of DH system

- Organic growth
 - Expansion of city to surrounding areas
 - Fill-in – existing areas
- Conversion of surrounding cities
 - DH towns/townships to DH Aalborg
 - Individual heated houses – natural gas, oil etc.

→ <https://youtu.be/D0lhBGak2p4>

Heat planning, Aalborg City



Signatur:

- Transmissions- og fordelingsledninger
- forsyningsområde**
- Fjernvarme/Decentral
- Fjernvarme/Central
- Naturgas
- Individuel opvarmning

Map Labels (Districts and Heat Demand Points):

- Pandrup
- Aabybro
- Grindsted
- Tylstrup
- Isted
- Hjallerup
- Dronninglund
- Asaa
- Uggerhalne
- Vestbjerg
- Vadum
- Vodskov
- Langholm
- Stae
- Ullsted
- Hou
- Gandrup
- Vester Hassing
- 155 TJ 11,0 MJ/S
- 40 TJ 2,8 MJ/S
- 23 TJ 1,6 MJ/S
- 100 TJ 7,1 MJ/S
- Hals
- Egense
- Mou
- 41 TJ 4,3 MJ/S
- Gudumholm
- 31 TJ 3,2 MJ/S
- Vaarst
- Fjellerad
- Nørre Kongerslev
- Kongerslev
- 49 TJ 5,1 MJ/S
- Skørping
- Øvring
- Øster Hornum
- Ellidshøj
- Erslev
- 56 TJ 5,3 MJ/S
- (6 MJ/S)
- Nøvling
- Gudum
- Gistrup
- Klarup
- 21 MJ/S
- Visse
- Dall Villaby
- Frejlev
- 34,1 MJ/S
- 34 TJ 3,6 MJ/S
- Sønderholm
- Godthåb
- Stenstrup
- 12 MJ/S
- Nørholm
- Nibe
- 176 TJ 19,6 MJ/S
- 3,6 MJ/S
- Valsted
- Søbbersund
- Bislev
- Kølby
- Farstrup
- 23 TJ 1,6 MJ/S
- Brovst

Map Title and Footer:

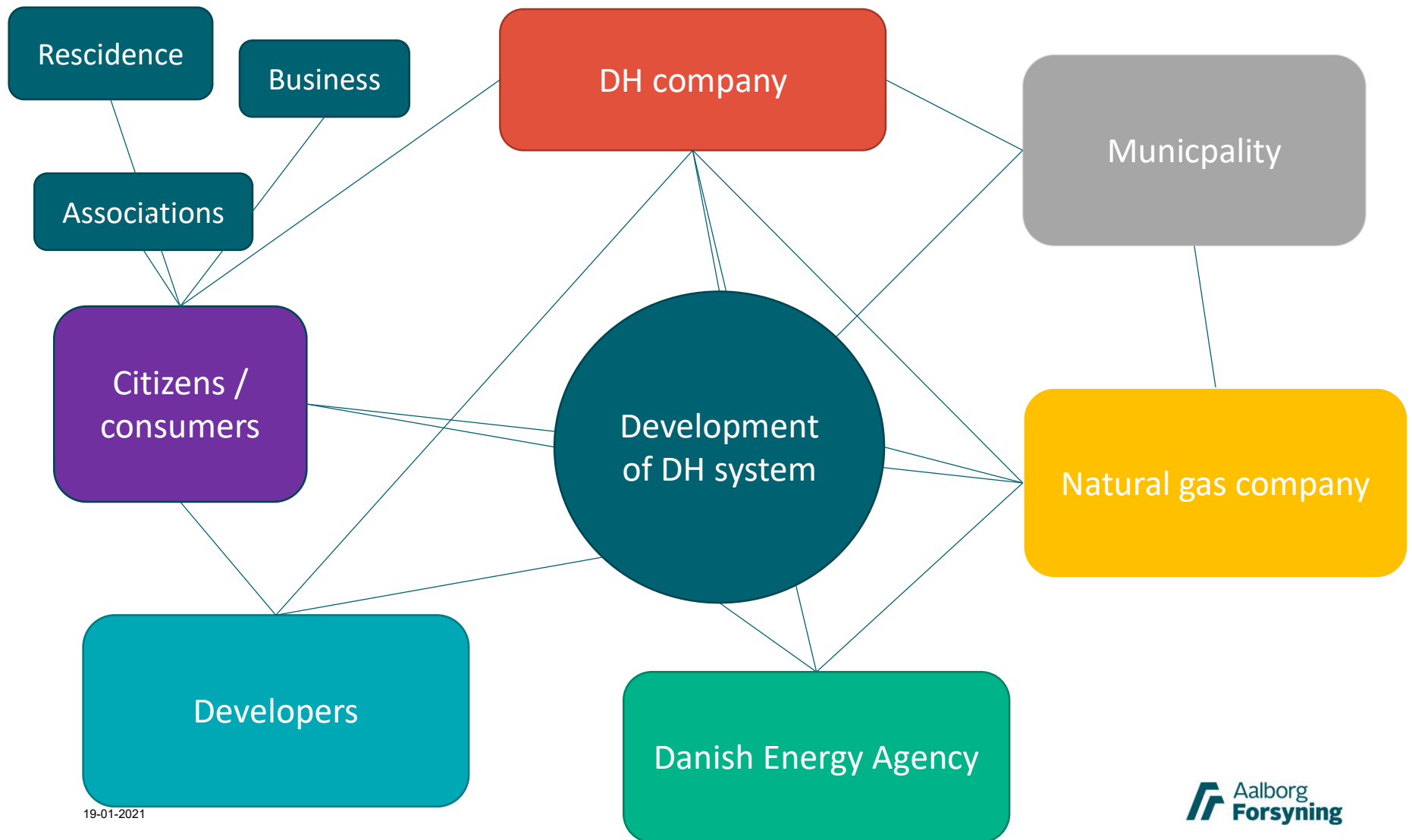
FORSYNINGSVIRKSOMHEDERNE
Hjultmagervej 20, 9100 Aalborg - Tlf.99314800 Fax.99314894

STRATEGIPLAN FOR FJERNVARME 2011-2022
BILAG 2 - VARMEVÆRKER I AALBORG KOMMUNE

Legal & Business-framework for development of DH networks

- Business Case must be good for DH company
- Socio economic BC must be good for overall project
 - DEA facilitate framework for calculations
- Heat planning restrictions
 - Production method, fuel restrictions, calc. method etc.
- Project must be feasible for consumer / competitive advantage.
 - Development areas – issues related to building/ construction permits
 - Conversion – natural gas and/or heat pumps
 - Contact with customers - <https://youtu.be/l4OZ5JfTB04>
- Obligations
 - Obligations to supply area (DH company)
 - No obligation to get or stay connected (consumers)

Stakeholders



19-01-2021