The role of cooperatives and municipalities in district heating

1ste Belgisch-Deens Warmtenetcongres, Brussel, 10/12/2019
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Ecopower & BeauVent

- **REScoop = Renewable Energy Sources cooperative**
- Uniting citizens to invest in renewable energy production and energy efficiency, and use their own energy
- International Cooperative Alliance (ICA) def & principles
- BV > 5,000 and EP > 50,000 members
- EP & BV: energy supply as a service to the members
- 1 share = 250 EUR
Comparing Warmtenet Eeklo and Warmtenet Oostende

2 Flemish district heating cases with energy cooperatives!
Timeline warmtenet Eeklo

- 2009: Eeklo tender **windturbines** - fixed fee & competition added value
- 2009: Ecopower offer including study DH on **waste heat** incinerator
- 2012: Core & Ecopower feasibility study DH positive
- 2016: Eeklo tender **concession** DHN – citizen participation
- 2016: IVM renewal environmental permit waste incineration
- 2018: Concession to **consortium Ecopower & Veolia**
- 2018-2019: **project development**
  - masterplan 3 phases & 4 heat clusters
  - Negotiations waste heat IVM
  - Customers: contracting > 2/3 needed
  - Request for subsidies (cfr Oostende & Antwerpen)
- Summer 2020: **first heat delivered** - cluster sports park & childcare & new apartments
- **Autumn 2022**: phase 1 DHN operational?
Eeklo Phase 1
- 8 km trench length
- 23 GWh/y heat delivery to factories, offices, hospital
- Low carbon heat from Waste to Energy plant
Timeline Warmtenet Oostende

- 2013: waste heat study by POM WVL
- 2014 – half 2015: Eandis investigates project
- July 2015: City of Ostend gathers developers
- July 2015 – 2016: project development and contracting
- October 2016: BeauVent obtains permit
- 2016 – 2017: support from call restwarmte and STRES
- October 2017: start works
- September 2018: 11 million EUR support for long term development
- February 2019: first heat delivered to Daikin
- 2019: connection of industrial customers
- Summer 2020: further rollout in city
- 2025-2030?: gas grid is gradually phased out?
Oostende
- 5 km trench length
- 15 GWh/y heat delivery to factories, offices, hospital
- Low carbon heat from Waste to Energy plant
<table>
<thead>
<tr>
<th>Warmtenet Eeklo</th>
<th>Warmtenet Oostende</th>
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<tbody>
<tr>
<td>Bottom-up initiative of cooperative leads to top-down approach of city</td>
<td>Top-down initiative of city leads to bottom-up action of cooperative</td>
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<tr>
<td>Exclusive right to use public domain for heat distribution <em>(concession)</em>.</td>
<td>No exclusive rights on use of public domain <em>(easement</em> on street level). Natural monopoly + exclusive heat supply contracts</td>
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<td>Development security for investor</td>
<td>Development risk for investor</td>
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<td>District heating scheme is rolled out according to the city’s preferences.</td>
<td>Everybody is free to install district heating.</td>
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<td>No security that DH scheme is rolled out. Contracting process with city is time consuming.</td>
<td>No security that DH scheme is rolled out. No time lost with contract between developer and city.</td>
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<tr>
<td>Less favorable spatial context, <strong>2/3 degree of affiliation</strong> needed</td>
<td>Favorable spatial context, <strong>Cherry-picking</strong> of large existing heat users</td>
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<td>Permit necessary for DH pipes on private land, not on public domain</td>
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<td>Contract with heat source not included in concession</td>
<td>Contract concluded with <strong>multiple waste heat sources</strong></td>
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<td>Contract with city to provide municipal buildings with low-carbon heat</td>
<td>No contract with city to provide municipal buildings with low-carbon heat</td>
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<td>Ecopower &amp; Veolia consortium</td>
<td>BeauVent</td>
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<td><strong>35%</strong> cooperative ownership</td>
<td><strong>100%</strong> cooperative ownership</td>
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<td>Covenant of mayors - DH is <strong>part of SEAP</strong></td>
<td>Covenant of mayors - DH is a <strong>surplus for SEAP</strong></td>
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Concluding remarks

- Cooperative DH initiatives and **citizen participation** = success factor!
- Make DH in your city part of **SEAP** - covenant of mayors!
- Low **gas prices** to compete: taxshift – carbon tax – tax on surplus heat?
- **Low-carbon heat** is neglected in Belgium
- District heating will not succeed in Belgium if **initiative** is left to investors only
- **Vision on heat** needed => phase-out of gas grid in urban areas
- **Waste-to-Energy** facilities are mostly connected, power plants not
- Industrial customers and other large heat users are **stepping stones**
- Focus on **existing building stock**
Thank you!