

DISTRICT HEATING IN BULGARIA



Joerg Sollfelner

Deputy Chairman of the Management Board
Association of the District Heating Companies in Bulgaria

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ATDB

Association of the District Heating Companies in Bulgaria

Overview

District heating in Bulgaria has a long tradition

- ▶ 600 000 customers
- ▶ 15 companies for district heating in all bigger towns (three of them still state-owned, among them Sofia)
- ▶ 7.5 TWh thermal energy
- ▶ 2.0 TWh electric energy
- ▶ Main fuel is gas, few plants are coal-fired
- ▶ Average age of the assets is 30 years



Main challenges - Technology

20 years without investments lead to a difficult situation

- ▶ Low production efficiency
 - Main production sites were constructed during the 70's and 80's
 - Principal fuel was heavy oil, later on changed to natural gas
 - Wrong relations of capacity between boilers and turbines
 - High dependence on gas price changes (single-buyer model!)

- ▶ High grid losses
 - Overdimensioned design
 - Decrease of customer base
 - Low budgets for repair

- ▶ Environmental problems
 - Inefficient production leads to high NO_x and CO₂ emissions



Main challenges – Customer satisfaction

Customer orientation needs further development

- ▶ Low public acceptance:
 - District Heating as “old, unmodern industry”
 - Heat cost allocation by separate companies is mistrusted
 - Strong customer protection organisations which act in a populist way
 - Heavy pressure from media

- ▶ Low collection rate
 - No chance to stop supply due to vertical installation in old apartment buildings
 - Very inefficient court proceedings

- ▶ Low customer satisfaction
 - “High” prices in comparison to purchasing power and very low prices for electricity
 - Low quality of supply due to old internal installations, which are owned and maintained by the customers



Necessary changes

To give Bulgarian district heating a future

- ▶ Changes in the legal and regulatory framework
 - Clear rights and obligations for heat suppliers, heat cost allocators and also for customers
 - Effective tools to deal with incorrect customers
 - Transparent and fair tariff model
 - Target-oriented social aid

- ▶ Modernization of the assets:
 - High-efficient cogeneration
 - Use of alternative fuels (waste, biomass)
 - Rehabilitation and automation of the heating grids

- ▶ Public commitment to central heating

