

EVN TP

Clean air for Plovdiv through district heating

Plovdiv | June 2022

EVN TP:



Modern technologies for clean energy and clean air



First stage: 10 years operation of the most modern Cogeneration in Bulgaria

- Produced heat – **2,37 TWh**
- Produced electricity – **2,65 TWh**
- **3 times less CO2 emissions** from electricity production compared to the electricity in the national energy mix

Second stage: New peak hot water boilers in operation this year:

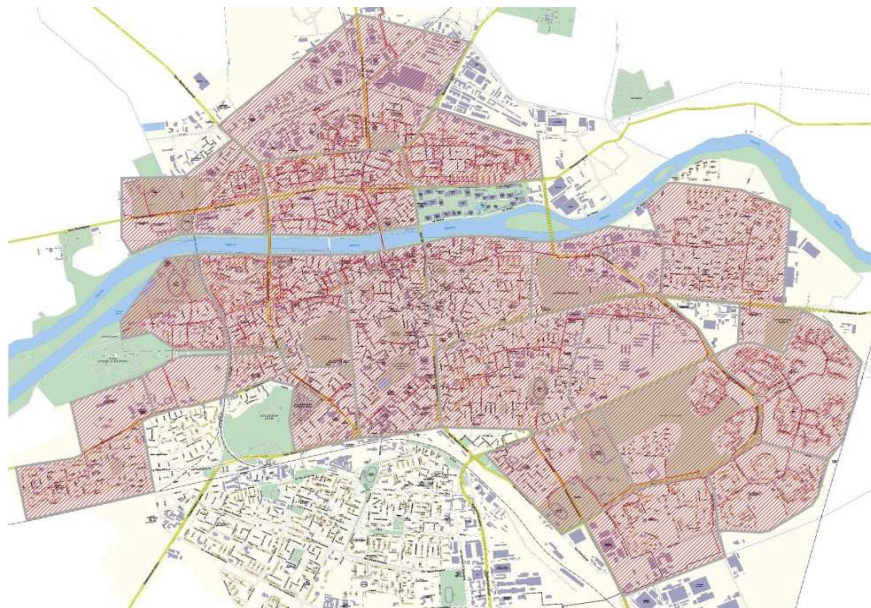
- The last old production installations are stopped
- Emission monitoring:
 - NOx <52 mg/Nm³ (Norm 100 mg/Nm³)
 - CO <12 mg/Nm³ (Norm 35 mg/Nm³)

Next stage in the development:

- Hydrogen transition and carbon neutral production projects



EVN TP grid - condition for decarbonisation of energy consumption



District heated regions in Plovdiv

- 5 of 6 regions of Plovdiv with district heating grid
- 185 km district heating grid (over 40 km new)
- 1 260 heating exchange stations (over 260 new since 2008)
- Investors appreciate the district heating:
 - Residential complexes Royal Garden, Panorama Park, Residential Park Plovdiv and others
 - UMBAL St. George, Medical University, Kindergartens, Schools, Malls, office buildings and others

New focus: Projects for rehabilitation of the grid

First in Bulgaria: Using heat energy for cooling

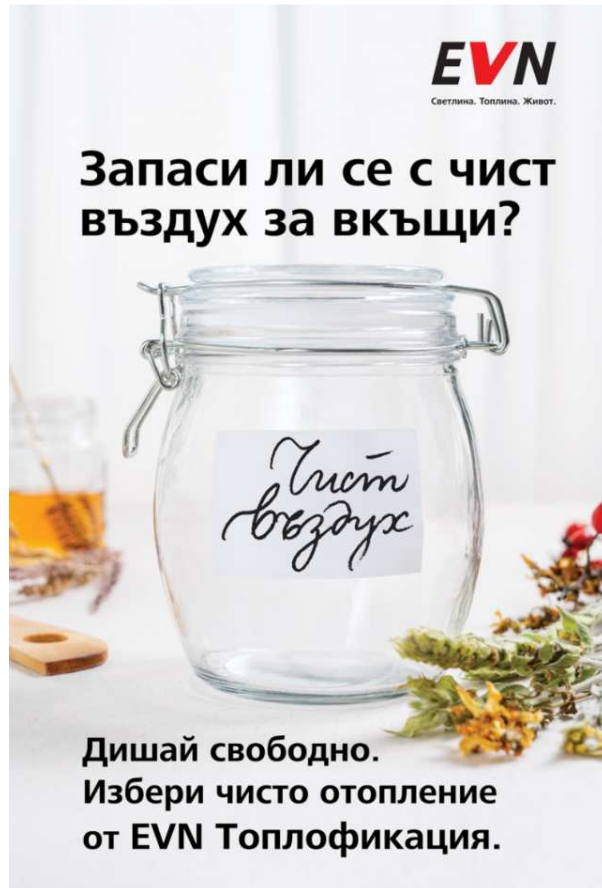


Individual smart solution

- Suitable for hotels, office buildings
- Reduces the need of electricity
- Reduction of pollution

- Frontliner in Plovdiv: Municipality Trakia in 2013
- Sport hall Kolodrum
- 2 hotels and 2 office buildings

Clean air requires a shared vision of citizens, companies **EVN** and the Municipality



For new buildings under construction:

- Design and construction of internal heating and hot water installation obligatory >> chance for residents to choose the type of heating and include renewable energy sources
- Do not allow construction of buildings in areas with central heating / gas without planned installations

For constructed buildings:

- Reconstruction of the heating and hot water installations - mandatory for renovation programs

Reconstruction - a step towards energy efficiency



New heating installation located in common areas

For heating installations:

- Reduction of energy costs from building installation by over 85%
- Individual consumption and control, no adjustment bills
- Extending the life of the system



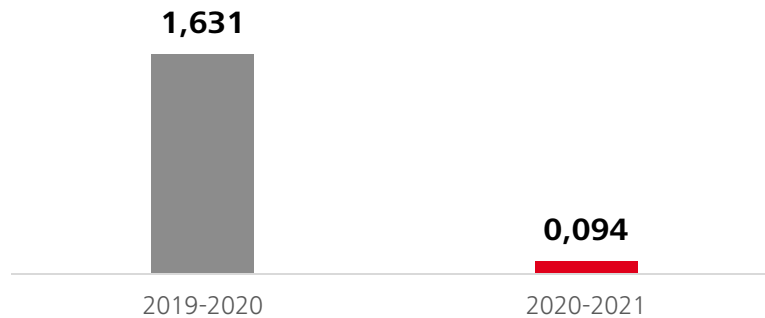
New domestic hot water installation (with insulation)

For hot water installations:

- Average price reduction for 1m³ by over 30%
- New installation without leaks and with longer life
- Reduced energy losses from the installation
- Improved supply quality

Results after reconstruction Season 2020/2021

4 Dunav bul. MWh for apartment



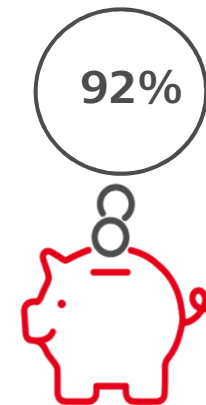
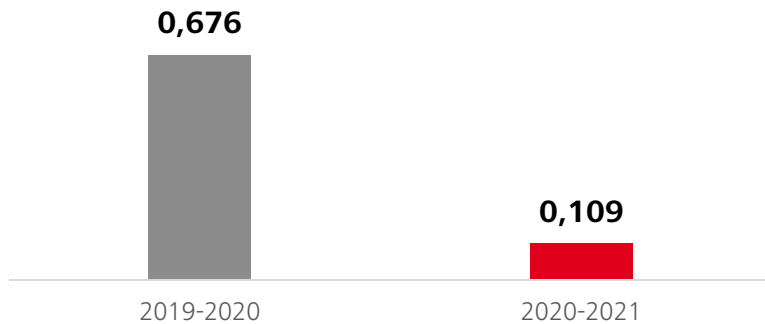
→ Energy losses in heating installation **without reconstruction** in both buildings:

148,012 MWh

→ Energy losses in heating installation **after reconstruction** in both buildings:

10.362 MWh

Trakia, bl. 216a, entrance B MWh for apartment



For the air we breathe

EVN TP: Highlighting importance of clean air since 2018

EVN



ТУК EVN Топлофикация работи
за по-чист въздух в Пловдив.



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