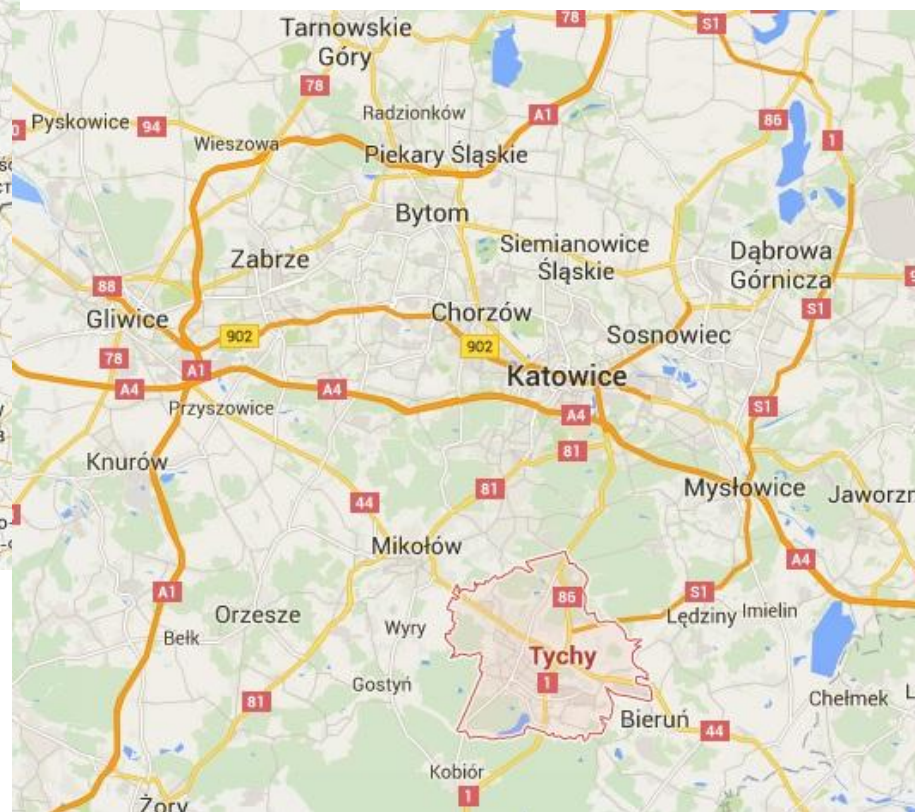


Actions taken to improve air quality in the municipality of Tychy



TYCHY DOBRE MIEJSCE



Reduction of low-stack emission for city of Tychy in the years 2016 - 2020

Previous edition 2002-2007 successfully completed

- 2200 modernization of heat sources (2015 coil boiler)
- Capital expenditures 5.564.000 EUR
- annual reduction in emissions by 2,605.9 Mg which constitutes 84% of the 3078 Mg

Program rules:

- Addressed to all residents of the city, with residential buildings which are in use
- The program includes modernization (replacement) low efficient and non-organic sources of heat for modern and environmentally friendly.
- The voluntary participation of residents and the choice of the boiler manufacturer and assembly company,



Program funding:

- Municipality (funds from the Regional Fund for Protection Environment and Water Management in Katowice) - 60%
 - The investor (resident) - 40%
- Maximum eligible cost for financing for one object - 10,000.00 zł

Participant requirements:

- Submission to the program
- Private residential buildings with up to 30% of commercial part
- Only buildings in use (does not apply to buildings under construction, new, not completed)
- Exchange only solid fuel boilers which are the main source of heat
- In the neighborhood of multifamily housing for participation in the program the lack of urban district heating is required

The estimated amount of planned sources of heat, and approximate investment costs

Lp.	Type of source	Qty modernized sources[pcs]	Unit cost of replacement[zł]	Total[zł]
1	2	3	4	5
1	District heating	200	16400	3 280 000
2	Natural gas	420	10000	4 200 000
3	Electricity	30	10000	300 000
4	Heat pump	100	40000	4 000 000
5	Solar collectors	100	12000	1 200 000
6	Coal boiler – class 5	400	18000	7 200 000
	TOTAL	1 250	-	20 180 000

The environmental effect possible to achieve after 1150 boiler replacement

No.	Substance	Measure	Current qty	Expected qty	Reduction
1	2	3	4	5	7
1	SO ₂	kg/a	107 760	44 160	59,0%
2	NO ₂	kg/a	28 320	25 320	10,6%
3	CO	kg/a	442 440	84 720	80,9%
4	CO ₂	kg/a	18 249 000	13 547 640	25,8%
5	pył	kg/a	28 320	8 280	70,8%
6	B(a)P	kg/a	6,0	1,9	68,0%



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Other activities to improve air quality



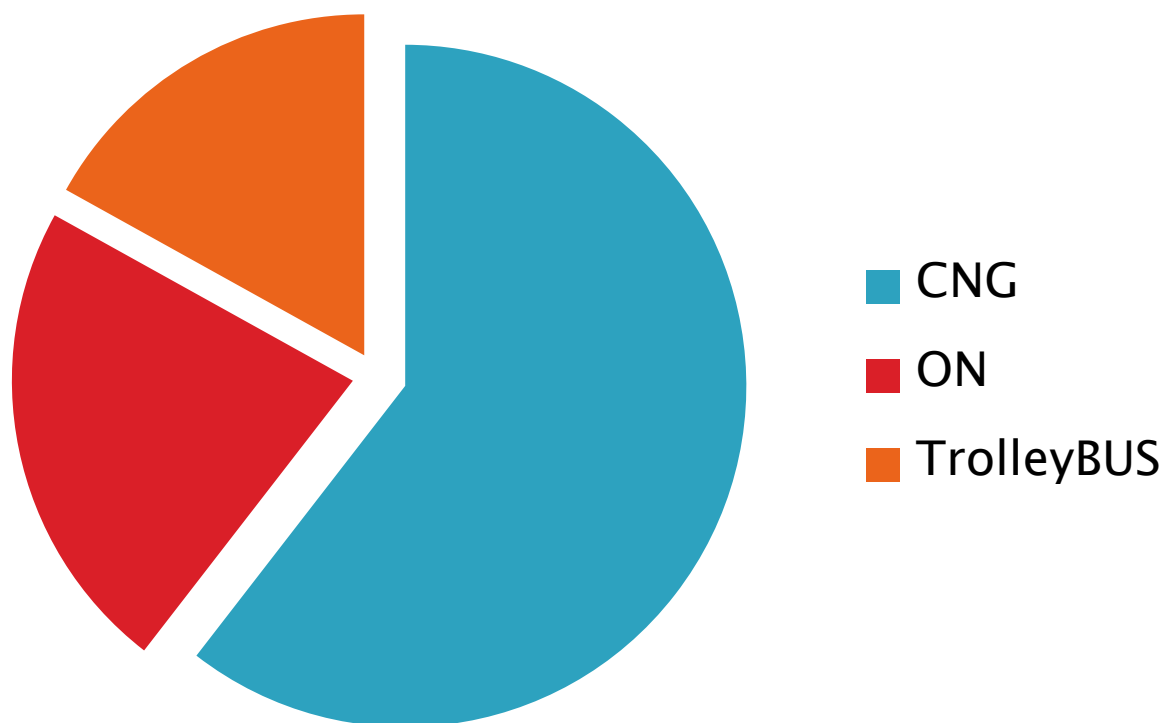
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Fuel





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Thank you for your attention

Milosz Stec – Deputy Mayor

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