











 True colour image of the Belchatów lignite mine in 2023. Data: Sentinel-2. 2023-08-15.

40,000 35,000 30,000 50,000 15,000 10,000

7. Development of the coal consumption (hard coal and lignite) for energy production.

The Belchatów Coal Mine, Poland

The Belchatów lignite mine, located in central Poland, covers an area of more than 12,500 hectares. It is one of the largest in Europe and has been operational since the mid-1970s.

The mine has reserves exceeding 2 billion tons of lignite, a low-grade coal used for electricity generation. The produced lignite is provided to the adjacent Belchatów Power Plant, which consumes more than 40 million tons lignite per year. With its capacity of more than 5.3 GW this power plant is one of Europe's largest thermal power stations.

As the satellite maps show, the mine has been shifted westwards, following the coal deposits. It faces environmental challenges due to the extraction of fossil fuels and greenhouse gas emissions. With emissions of 30 million tons of $\mathrm{CO_2}$ in 2020, the adjacent power plant was the biggest single emitter of this greenhouse gas in Europe.



2. True colour image of the Belchatów lignite mine in 2020. Data: Sentinel-2, 2020-07-01.



3. True colour image of the Belchatów lignite mine in 2010. Data: Landsat 5, 2010-08-22.



4. True colour image of the Belchatów lignite mine in 2001. Data: Landsat 5, 2001-07-28.



5. True colour image of the Belchatów lignite mine in 1990. Data: Landsat 4, 1990-06-12.





