



Industry

Factories are the beating heart of the industry sector, which accounts for 39% of all global energy-related CO₂ emissions. Factories worldwide face the challenge of meeting growing demand while simultaneously curbing CO₂ emissions.¹ Heavy industries in particular pose a large challenge for the sector.



The lost city of Benxi



Benxi,
China

40 years ago, UN experts discovered that a city in northern China had entirely disappeared from satellite photos. Home to more than a million people, the old steel capital of Benxi could still be found at ground level. However, smog caused by the city's heavy industries sector had turned the skies black, obscuring it from above. To make matters worse, the city is surrounded by mountains which trap polluted air and prevent it from rising. Benxi

thus became notorious as the city with black snowflakes and the highest rate of lung disease in China. With a noxious cloud of disaster gathering over Benxi and the rest of China's "rust belt", the central government launched a program called Restoring Northeast. A central part of the plan was to transform Benxi's heating infrastructure. To replace coal-fired heating, the Benxi Steel Company began to utilize excess heat from their

industrial processes, which was transported through an advanced district heating system. As a result, the usage of coal has been significantly reduced, resulting in considerably reductions in CO₂, NO_x, and SO_x emissions. Today, Benxi residents may now breathe freely again — and Benxi can be seen in satellite photos.

1 IEA (2021). Greenhouse Gas Emissions from Energy