



**TŘINECKÉ ŽELEZÁRNY**



**STEEL FOR  
GREEN**

# ECO-FRIENDLY STEEL PRODUCTION

**Třinecké železářny is on the threshold of strategic transformations related to sustainable business. A new era of operations will dramatically change the current steel production process. The steelworks has already launched a transformation project that will lead to an environmentally friendly steel production process. The aim is to further reduce greenhouse gas emissions into the air.**

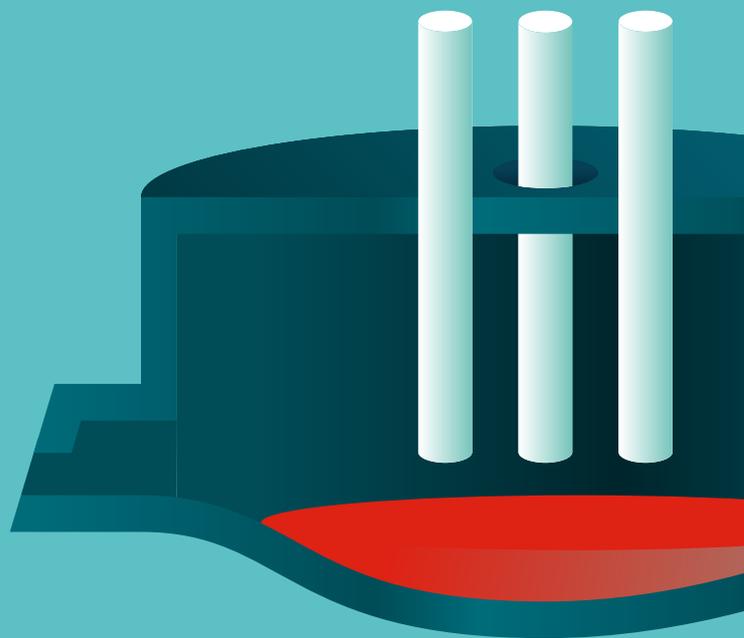


## TRANSFORMATION PROCESS

# ELECTRIC ARC FURNACE

A key part of the transformation process is the construction of a modern electric arc furnace (EAF), which will produce steel mainly from scrap.

We are preparing the infrastructure, including connection to the power grid and securing scrap supply. The expected production capacity is 2.6 million tonnes of steel, utilizing a combination of one blast furnace, one oxygen converter, and one EAF. The total cost of the project will be in the range of several billion CZK.



# IRON ORE BRIQUETTING LINE

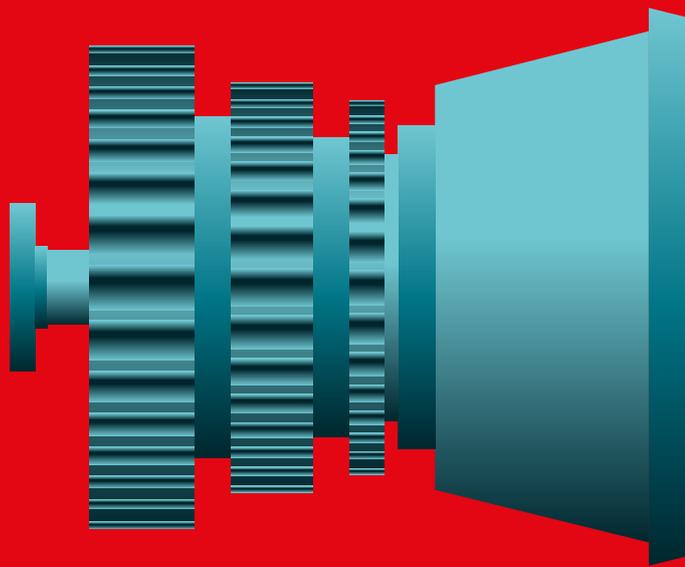
We have started the construction of a new zero-emission iron ore briquetting line, which will replace steel sinter and part of the blast furnace sinter production. The core of this technology is the cold-process production of blast furnace charge. Its installation will lead to a reduction in CO<sub>2</sub> emissions by up to 70,000 tonnes per year.



# COMBINED CYCLE GAS TURBINE

The second strategic investment in the project involves the transition from thermal coal to environmentally friendly energy sources in Energetika Třinec, a subsidiary specializing in the production and distribution of energy media. To reduce CO<sub>2</sub> and other emissions, the company has proposed replacing the coal-fired fluidized bed boiler K11 with a new natural gas combustion technology.

This involves a 62 MWe combined cycle gas turbine (PPC1), planned for installation at the site of the decommissioned K14 boiler. The new energy source consists of a compact gas turbine designed for natural gas combustion with the option of co-firing hydrogen. Behind the turbine, a drum-type heat recovery steam generator (HRSG) is installed, utilizing steam for additional electricity and heat production.



# PHOTOVOLTAICS

We are gradually installing photovoltaic panels on production halls. Currently, we are operating three photovoltaic power plants, with more in preparation.



# ECOLOGY IS A PRIORITY

The steelworks will continue its long-term environmental protection program through its transformation project. Since its privatization in 1996, the company, together with Energetika Třinec, has invested over 13 billion CZK in ecology. As a result, it ranks among the most environmentally friendly steel producers in Europe.

At the same time, CO<sub>2</sub> emissions are gradually decreasing, as they are an inherent by-product of the steel production process and chemical reactions. Today, Třinecké železářny is among the most efficient steel producers, thanks to 30 years of investments in environmental sustainability and efficiency.

The company is committed to decarbonization goals, aiming to reduce CO<sub>2</sub> emissions by 55% compared to 1990 levels and to become fully carbon-neutral by 2050.

# STEEL IS INDISPENSABLE FOR MEETING CLIMATE GOALS

Třinecké železářny, as the only producer of rails and railway accessories in the Czech Republic, annually supply the railway sector with over 500,000 tonnes of steel. The railway industry plays a significant role in reducing the carbon footprint.

Steel is also indispensable for wind and hydropower. Every year, nearly 50,000 tonnes of steel from Třinec are used to produce wind turbines – an amount sufficient to build 3,000 wind turbines. The operation of these turbines helps reduce CO<sub>2</sub> emissions by approximately 12 million tonnes per year.

