



TŘINECKÉ ŽELEZÁRNY



**STEEL FOR
GREEN**

ECO-FRIENDLY STEEL PRODUCTION

Třinecké železářny is on the threshold of strategic changes related to sustainable business. The new phase of operations will dramatically change the current form of steel production. 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.

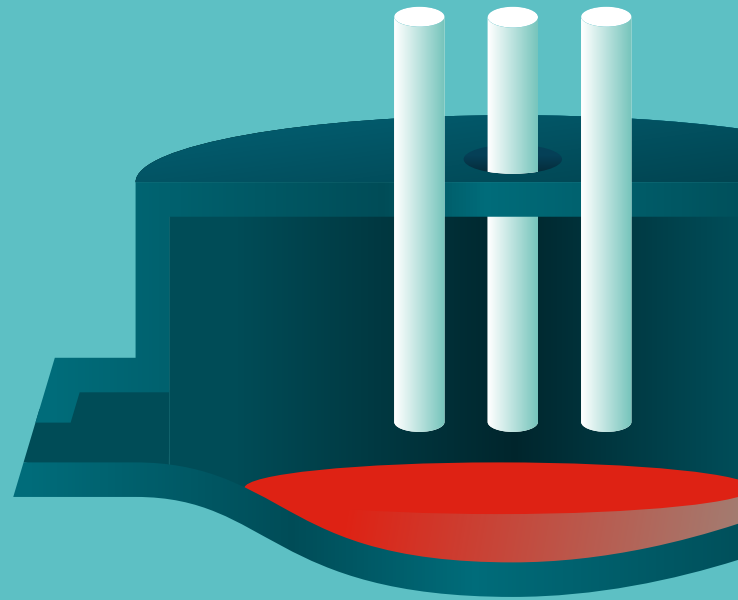


TRANSFORMATION PROCESS

ELECTRICAL 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.

In the near future we will prepare a study for the construction of the EAF and we will seek to secure the necessary infrastructure, in particular the connection to the electricity grid and the supply of scrap. We are working with a planned production capacity of 2.6 million tonnes of steel, using both blast furnace and EAF technology. This technology should be commissioned around 2031. The total cost of the project will be in the order of several billion crowns.



BRIQUETTING LINE

We are also preparing the construction of a new emission-free iron ore briquetting line, which will replace steel sinter and part of the production of blast furnace sinter.

The core of the technology is the cold blast furnace slag production process. The installation will reduce CO₂ emissions by up to 70,000 tonnes per year.



STEAM BOILER GAS

The second strategic investment of the project concerns the transition from thermal coal to green energy sources. The company's subsidiary Energetika Třinec deals with the production and distribution of energy media.

In order to reduce CO₂ and other air emissions, the company has proposed to replace the K11 coal-fired fluidised bed boiler with a new technology for burning natural gas. This will be a gas cycle (PPC1) with a capacity of 62 MWe, to be built on the site of the decommissioned K14 boiler.

The new source will consist of a compact gas turbine designed to burn natural gas with the possibility of co-firing hydrogen. The turbine will be followed by a drum-fired flue gas boiler, which will use the steam to produce electricity and heat. The estimated commissioning date is 2027 and the estimated cost is more than two billion Czech crowns.



PHOTOVOLTAICS

Since last year, the energy sources have been supplemented by a photovoltaic power plant installed by the company on the roof of the production hall on the premises of Třinecké železářny. The installed capacity is 350 kWp. Solar energy is captured by **760 panels**. The investment exceeded CZK 12 million. Almost CZK 3 million was covered by a grant from the Modernisation Fund.



ECOLOGY IS A PRIORITY

The steelworks will follow up the long-term environmental protection programme of previous years. Together with Energetika Třinec, the company has invested more than 13 billion crowns since its privatisation in 1996. This makes it one of the most environmentally friendly steel producers in Europe.

The volume of CO₂ emissions, which are part of the steel production process and a natural by-product of chemical reactions, is also gradually decreasing. The emission intensity of the Třinec Steelworks is now 1.52 tonnes of carbon dioxide per tonne of produced steel. As a result of the investments made in ecology and efficiency over the past 30 years, Třinecké železářny is now one of the most emission-efficient steel producers in the EU and the world.

STEEL IS ESSENTIAL TO MEET CLIMATE GOALS

The Třinec Steelworks is the only manufacturer of rails and railway accessories in the Czech Republic. It supplies the railway sector with more than of 500,000 tonnes of steel per year. The railway industry, is one of the sectors that contributes significantly to the reduction of the carbon footprint.

The wind and hydropower industries are no exception. Nearly 50,000 tonnes of steel are used each year to manufacture wind turbines. That is enough steel to make three thousand wind turbines. Their operation will reduce carbon dioxide emissions by around 12 million tonnes per year.

