



Press release

OTROKOVICE, 14 July 2022

Alternating current will power trains on corridor from Břeclav to Přerov

After 12 days, the overhead line equipment will be switched on between Otrokovice and Říkovice and trains on this part of the second corridor will be pulled by electric locomotives again from 15 July. However, instead of direct current, they will be powered by the more advantageous alternating current with a voltage of 25 kV. Správa železnic will thus complete the gradual replacement of the traction power supply in the section Nedakonice – Říkovice and the pilot project of converting power supply systems on domestic lines will progress to the final phase of test operation.

The network of electrified lines in our country so far uses a 3 kV direct current (DC) system in the northern part of the country and a 25 kV, 50 Hz alternating current (AC) system in the southern part. The aim of Správa železnic is to unify the power supply for electric trains. Switching to the AC system will result in a more efficient power supply for traction units with lower losses, energy savings and compatibility with high-speed lines. It also means cheaper electrification of other conventional lines.

The work on repositioning of the voltage system junction about 43 kilometres north to Přerov started two years ago almost to the day exactly and it was carried out practically all the time during full operation on the line. Traction substations were built in Otrokovice and Říkovice with static frequency converters manufactured in Switzerland by Hitachi Energy being the heart of those. The technology will enable symmetrical power draw from the grid, but also, for example, an easy return of energy recuperated during locomotive operation back to the distribution system. Such a technology for this traction power system has been used in Europe for the first time.

Due to the different technical parameters, the insulator systems, the overhead contact line itself and the line signalling equipment had to be modified in the entire corridor section. Eight stations were also affected by adjustments. The actual conversion of the power supply systems, which required temporary capacity restrictions, took place from mid-June. The construction also included preparation of the power supply to the lines to Vizovice, Luhačovice and Bylnice. The total cost amounts to approximately CZK 2.3 billion. The documentation for building proceedings and the construction implementation is co-financed by the European Union under the Operational Programme Transport.

The gradual conversion of traction power supply will take place in the following years in the directions from Přebor and Děčín. At the same time, Správa železnic works on separate projects on selected line sections, for example from the state border with Slovakia to Vsetín. The power supply conversion is also part of the planned modernisation of the line Praha-Radotín – Beroun.