JIHLAVA, 18 September 2019

SŽDC Presented Current State of Preparation for Praha – Brno – Ostrava High-Speed Line

One of the main priorities of Správa železniční dopravní cesty (SŽDC) in the field of building railway infrastructure is ensuring the implementation of the governmental Programme of Railway Rapid Service Development in the Czech Republic. A necessary prerequisite for successful preparation and implementation is intense cooperation of all components of state administration represented by the Ministry of Transport, SŽDC and regional as well as local administration authorities. That is why the infrastructure manager prepared for this year a project of presentation meetings "Current state of HSL preparation in the Czech Republic". The project continued today by a meeting in Jihlava.

High-speed lines (HSL) are a key infrastructure for the Czech Republic in the future. In order to accelerate the procedure of preparing and building high-speed lines, SŽDC selected pilot sections, more specifically Praha-Běchovice – Poříčany (HSL POLABÍ), Přerov – Ostrava (HSL MORAVSKÁ BRÁNA – MORAVIAN GATE) and Brno – Vranovice (HSL JIŽNÍ MORAVA – SOUTH MORAVIA). Based on cooperation of SŽDC and DB Netz AG on a new railway connection Dresden – Praha, additional sections Praha-Vysočany – Lovosice/Litoměřice and Ústí nad Labem západ – state border Czech Republic/Germany were added. All selected sections are an important contribution for current transport already now by increasing railway capacity in the given direction and thus improving transport reliability and allowing its further development. Thanks to higher capacity, trains can accelerate as well due to an elimination of various categories' trains needless passing each other.

Feasibility Study and HSL Route

The shape of new high-speed lines Praha – Brno – Ostrava/Šakvice is being verified by feasibility studies. These elaborate several options for line paths and verify various parameters such as suitable maximum train speed. Feasibility studies serve as a base for future design works and are elaborated for the sections Praha – Brno – Břeclav and Brno – Přerov – Ostrava. In the Praha – Jihlava section, many options are being verified. In general they can be divided into southern and northern groups. Southern groups are led from Praha junction in direction to Benešov and Havlíčkův Brod, the northern ones are led from Praha junction along the D11 motorway in direction to Poříčany and further to Havlíčkův Brod. The northern options show lower construction and operation costs. In the section Jihlava – Brno, the line path under verification is relatively without options and freely copies the path of D1 motorway.

The proposed HSL are considered in all cases only for passenger trains in accordance especially with their track level (maximum gradient).

The feasibility study also compares various options for future operation, i.e. a suitable combination of long-distance express trains and slower fast trains for regions' servicing.

- **Section Praha – Brno**
  - New construction of high-speed line over 200 km long
  - Exclusive operation of passenger trains
  - Suggested speed up to 350 kph
  - Maximum line gradient up to 35 per mille
  - European Train Control System (ETCS)
  - Journey times Praha – Brno approx. 60 minutes
  - Connection to current railway lines (under verification)
    - junction Praha (Běchovice, Zahradní Město)
    - Poříčany/Nymburk
    - Světlá nad Sázavou/Havlíčkův Brod
    - Jihlava/Pávov/Polná
    - Velké Meziříčí/Velká Bíteš
    - junction Brno (southern access)
  - HSL terminals (under verification)
    - Praha-východ/Jirny
    - Kutná Hora region
    - Jihlava
    - Velké Meziříčí
    - Velká Bíteš
    - Brno-Vídeňská

Works on the feasibility study Praha – Brno – Břeclav are in their half, SŽDC receives results continually. These cannot be considered as final but they show various solution options. Currently, SŽDC received an output from the Phase I study elaboration which is a crucial milestone for the works schedule. In the weeks to follow, the output will be subjected to a remarks' procedure and discussed with the Ministry of Transport. This will result in selecting an option (or options) to finalize within the Phase II study elaboration.

Based on previous outputs we can state that better results were reached for options led within the northern corridor. Both corridors bring similar advantages and basically the same journey times for the railway connection Praha – Brno, however investment costs are considerably lower for the northern corridor option, the difference being within 25 – 30%. This is given mostly by more favourable terrain which requires considerably less bridge and tunnel constructions. The northern option is more favourable for regional train connection as well. Anticipated density of long-distance and express regional transport requires a solution of the suburban section as quadruple-track which would mean another cost increase in case of using the southern option.

A Fast Railway

HSL construction will result in a considerable decrease of journey times not only in the new line's axis. Infrastructure being newly built is prepared as a part of the nation-wide transport system which will be represented especially by fast trains as seen by passengers.
These fast trains will use both new high-speed lines and connecting modernized conventional lines for their rides. Express trains will connect main capital cities at high speeds, more fast trains will ride from capital cities and large centres to the regions and ensure their servicing. A part of capacity at disposal will be also reserved for fast regional trains in certain localities.
Passengers will thus be able to use not only express trains for the connection Praha – Brno – Ostrava and continuing abroad (Bratislava, Vienna, Berlin, Warsaw etc.) but also fast domestic trains for the connections Praha – Zlín, Praha – Jihlava etc.
A possibility of building terminals directly on the main line for servicing regions is under consideration as well. Terminals Praha-východ, Jihlava VRT, Brno-Vídeňská Street or others could become precisely such terminals.

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