

Prague, 03 January 2022

**NEW RAILWAY CONNECTION PRAHA-SMÍCHOV – BEROUN
(BEROUN TUNNEL)**

INVITATION TO PARTICIPATE IN THE FIRST MARKET CONSULTATION

Subject:

CONTRACT CONDITIONS AND CONSTRUCTION ORGANISATION

In connection with the ongoing preparation of the documentation for the planning permission of the contract entitled "**New Railway Connection Praha-Smíchov – Beroun**" (the "**Project**"), issued by Správa železnic, státní organizace (railroads administrator in the Czech Republic), with registered office at Prague 1 – Nové Město, Dlážďená 1003/7, 110 00, ID No.: 709 94 234 (the "**Client**"), a preliminary market consultation will be held pursuant to Section 33 of the Public Procurement Act (the "**Consultation**").

The construction of the new line Praha-Smíchov – Beroun is a priority infrastructure project of the Client and one of the largest transport projects in the Czech Republic. Its aim is to build a completely new double-track section on the 3rd transit corridor, which will directly connect the stations Praha-Smíchov and Beroun and thus relieve the existing line along the Berounka river for suburban railway and make passenger and freight transport from the direction of Beroun, Plzeň, Nuremberg/Munich faster and more attractive.

As part of the Project, a tunnel of length of approximately 25 km will be built at a depth of up to 130 m below the surface. Two single-track tunnel tubes will be built. The majority of the tunnelling will be carried out by TBM tunnelling machines. Lesser part and crossovers will be built by NATM. As there is insufficient space in the portal areas for adequate site equipment, the tunnelling and muck management will be carried out from shafts located along the tunnel route.

The construction site plan, longitudinal profile of the route and longitudinal profile of the geology are provided in **Annex 1**.

The project is currently in the design stage of preparation of the documentation for the planning permission ("DUR"), which will be completed in 2023. Between 2024 and 2026, we plan to prepare documentation for construction permit ("DSP"). We expect the Project to be implemented between 2027 and 2036. If contract conditions would change to the design & build type, we expect to commence the construction approximately in 2025. The estimated cost of the project is CZK 38 billion.

More information is available on the Project website: <https://www.spravazeleznic.cz/praha-beroun>

The Project is technically unique on a global scale and the Client wants to ensure that the Project engages as closely as possible the experience of a wider range of possible Contractors and suppliers (the "**Contractors**") in the construction of long tunnels especially in the area of contractual terms, construction organisation and technologies used.

1. DETERMINATION OF THE PURPOSE AND SUBJECT OF THE CONSULTATION

The purpose of this Consultation is to familiarize potential contractors with the Project subject and to obtain information necessary for optimal design of the Project.

The topics of the Consultation are listed in **Annex 2**.

2. DETERMINATION OF THE CONSULTATION PARTICIPANTS

The Consultation is open to a wide range of relevant participants. Participation is open to any contractor who demonstrates recent history (within last ten years) in the construction of mined/bored transport tunnels longer than 500 m. The Client requires that the financial scope of the experience to be submitted by the contractor should be at least CZK 2 billion. The contract which the contractor demonstrates experience with may be currently in progress.

The Client will take into account relevant experience from abroad corresponding to the above requirements.

In order to demonstrate their experience, those interested in participating in the Consultation shall complete the Registration Form attached as **Annex 3** to this invitation and send it by e-mail no later than **7st February 2022 23:00** to the e-mail address domanicka@spravazelenic.cz. If the interested party sends the Registration Form after the set deadline, the possibilities of their participation in the Consultation will be assessed according to the current operating conditions, in which case the Client cannot guarantee a positive processing of the application.

3. CONSULTATION PROCESS

The Consultation will take the form of a joint video conference call (the “**Videoconference**”) between representatives of the Client and their advisors on one hand and representatives of the contractors on the other hand. After the Videoconference, the Client will send a questionnaire (the “**Questionnaire**”) with questions to be completed by the participants of the Consultation.

Contractors who submit the completed Registration Form to the Client within the set deadline will be allowed to participate in the Videoconference and, where appropriate, will be given access to the documents to be presented during the Videoconference.

Each Contractor participating in the Videoconference will be sent login details and instructions for joining the Videoconference. The Videoconference will be recorded.

Each Contractor will only be able to log in to the Videoconference via a maximum of two devices and it will not be relevant how many people are physically present at each device. If more than two devices log in for one Contractor, they will be removed from the Videoconference.

The Client will take all reasonable organisational and financial measures to ensure that the Videoconference enables a way of communicating with Contractors as if the Client had arranged a personal meeting with the Contractors. On the other hand, the Client does not guarantee the functionality or smooth running of the Videoconference. In order to eliminate transmission failure, the Client recommends connecting to the Videoconference via a stable high-speed internet connection.

During the joint meeting within the Videoconference, the Client will first present their intention of the public contract in general terms and the initial technical solution of the project in the form of a presentation. A guided discussion on these topics will follow.

According to the topics of the Videoconference, the Client will then ask the participants to fill in the Questionnaire. The Questionnaire will be sent to the participants by e-mail after the Videoconference. In this way, participants will be able to comment formally on the intention of the Client by answering the questions in the form. At the same time, the participants in the Consultation will be given the opportunity to comment on the issue in greater detail in free text and, where appropriate, to express reservations, including justification, about the plan and the concept of the technical solution. Any statement should also include a proposal to address these deficiencies. However, the Client points out that they will only deal with relevant comments on the substantive, technical or legal aspects of the Client's intention and technical solution. The Contractor's free-form statement is limited to 50 standard pages¹.

¹ A standard page is understood as a page of text containing a maximum of 1800 characters including spaces or a drawing.

Comments will only be accepted in Czech or English language. Completed Questionnaires shall be sent by the Contractors via e-mail within 10 days after they received the questions.

In the event that any of the interested parties is unable to attend the Videoconference in person, they will have the opportunity to comment on the intention of the Client by filling in the Questionnaire.

If the Client deems it necessary during the Consultation (e.g. due to the complexity or unclear nature of the topic, protection of know-how, etc.), they may decide to hold individual discussions with those participants whose comments provided during the Consultation the Client considers to be the most beneficial and constructive. However, the need for an individual form of Consultation is always decided by the Client and Contractors are not legally entitled to it.

A record of the course of the Videoconference will be made in the form of a written meeting minutes and at the same time an audio or video recording. By participating in the Videoconference, the Contractor's representative agrees to the processing of personal data and to the making of a written and audio or video recording for internal purposes of Správa železnic. The minutes of the Videoconference and the names of the participants will be publicly accessible. The completed Questionnaires will be used for internal purposes of Správa železnic and will not be publicly accessible. The final report produced by Správa železnic on the basis of the Questionnaires will be publicly accessible.

4. TIME AND PLACE OF THE CONSULTATION

The Videoconference is scheduled for:

- **10/2/2022 at 9:30 a.m. in Czech**
- **11/2/2022 at 9:30 a.m. in English**

The Videoconference call will take place via the Microsoft Teams application. Each registered Contractor can participate in both Videoconferences. Translation will not be provided.

The estimated duration of the Consultation is from 2 to 3 hours.

5. COMMUNICATION BETWEEN THE CLIENT AND THE CONTRACTOR

All documents related to the Consultation will be prepared in both Czech and English. Communication between Contractors and the Client will be conducted exclusively in Czech or English.

6. CONCLUSION

Please send any questions and comments only by e-mail to: domanicka@spravazeleznic.cz

Thank you for your cooperation and we look forward to your participation in the Consultation.

**ANNEX NO. 1
DOCUMENTATION**

ANNEX NO. 2 MARKET CONSULTATION TOPICS

TOPIC 1: CONTRACTUAL CONDITIONS

1a) Based on your experience, what contract terms would you recommend the Client to use for a construction project of this scope and why? The Client considers the following options:

- i) Measured design-bid-build contract according to the FIDIC Red Book.
- ii) Design-build contract according to the FIDIC Emerald Book.
- iii) Design-build contract according to the FIDIC Yellow Book.

Would you recommend a different type of contract for tunnel construction works and for the tunnel equipment supply contract (rail infrastructure and rail systems), and if so, why?

1b) Based on your experience, would you recommend that the Client divides the entire project into several contracts, and if so, which contracts and of what size?

Were you to recommend a separate contract for the tunnel equipment (rail infrastructure and rail systems), where would you propose the interface between the main construction contract and the equipment supply contract? In other words, which contract would include the interior concreting, fixed railway, traction, etc.? What is the maximum financial scope of a single contract you would recommend?

1c) In your experience, is it common and applicable to issue a contract for the construction of such a long railway tunnel including its maintenance? The Client would anticipate the maintenance for about 30 years after its completion if it was the case.

1d) In your experience, is it common and applicable to issue a contract for the construction of such a long railway tunnel in the form of a PPP (Public Private Partnership)? What form of PPP would you envision as suitable?

1e) In your experience, is it applicable to determine the type and specification of a TBM machine in the contract for this type of project or do you consider it preferable to leave the choice up to the contractor?

TOPIC 2: CONSTRUCTION ORGANISATION

2a) The majority of the tunnelling will not be carried out from the portals as there is not enough room for the site equipment. The majority of the tunnelling will therefore take place from two locations along the tunnel route:

- * Construction Site No. 1 (Slivenec) at km approx. 8.5 (out of 25 km) overburden approx. 130 m.
- * Construction Site No. 2 (Tachlovice) at km approx. 16.5 (out of 25 km) overburden approx. 90 m.

The Client considers the following two alternative tunnelling strategies:

- i) 4 TBM machines from Construction Site No. 2:
 - * Conventional tunnelling (NATM) from Construction Site No. 1 direction Prague (8.5 km).
 - * TBM tunnelling in both directions from Construction Site No. 2 (8 km and 8.5 km).
- (ii) 2 TBMs from Construction Site 1 and 2 TBMs from Construction Site No. 2:
 - * From Construction Site 1 conventional tunnelling method (NATM) direction Prague (8.5 km) and TBM tunnelling (2 machines) direction Construction Site 2 (8 km).
 - * From Construction Site 2 TBM tunnelling (2 machines) direction Beroun (8.5 km).

Based on the above information and the introductory presentation: Can one of the above strategies be considered preferable? If so, please explain.

- 2b) Which method of access from the surface to the tunnels (at Construction Site Nos. 1 and 2 listed under 2a)) do you consider more preferable and why? The Client considers the following options:
- i) One large shaft between track tunnels and an underground cavern.
 - ii) Two smaller shafts and underground caverns.
 - iii) One smaller shaft, an access ("sloping") tunnel and underground caverns.
 - iv) One or two access tunnels and underground caverns without shafts.
- 2c) What area (in square metres) on the surface for Construction Sites Nos. 1 and 2 would you recommend for both tunnelling strategies? Would you consider it advantageous, given the height of the burden, to transfer some of the site equipment to underground caverns? If so, name the specific equipment and the area required.
- 2d) In the case of the use of vertical shafts for the supply of tunnels: Which method of vertical transport of muck/spoil do you consider more preferable and why? The Client considers the following options:
- i) Vertical belt conveyors.
 - ii) Crane transport ("skip").
 - (iii) Mine cage
- 2e) In the case of the use of vertical shafts for the supply of tunnels: What minimum shaft size would you recommend and why?
- 2f) In the case of the use of sloping access tunnels for the supply of tunnel construction (transport of muck/spoil by conveyor belts, transport of segmental lining, TBM machine parts and other tunnelling material):
- i) What is the suitable longitudinal slope of the access tunnel (the Client anticipates a suitable slope of approximately 12 % for the time being).
 - (ii) What is the preferable minimum directional curve of the access tunnel if it is designed as a spiral or if there is a directional change (curve)?
 - iii) What is a suitable size and shape of such access tunnel?
- 2g) From your point of view, what is the optimal size of an underground cavern for the assembly and launch of a TBM machine with a diameter of about 10 m at a depth of about 100 m below the surface? The Client considers a cavern with dimensions of 18 x 18 x 40 m.
- 2h) In your experience, what are the possibilities of reducing the risks related to unexpected encounter of karst phenomena in the TBM route?
- 2i) We assume the production of the segmental lining at segment factory near Beroun and transport to Construction Site 2 by train and to Site 1 by trucks. Do you have any comments on this plan?

ANNEX 3

NEW RAILWAY CONNECTION PRAHA-SMÍCHOV – BEROUN

(BEROUN TUNNEL)

REGISTRATION FORM FOR PARTICIPATION IN THE FIRST MARKET CONSULTATION

Subject:

CONTRACTUAL CONDITIONS AND CONSTRUCTION ORGANISATION

Client Identification:

Name:	Správa železnic, státní organizace
ID No.:	709 94 234
Registered Office:	Praha 1, Nové Město, Dlážděníá 1003/7, 110 00

Identification of the Party Interested in Participating in the Consultation:

Name:	
ID No.:	
Registered Office:	
Contractor's contact person for the purposes of the Consultation:	Name: Title: E-mail: Phone:
Persons who will participate in the Videoconference:	Name: Title / Relationship to Contractor: E-mail:
	Name: Title / Relationship to Contractor: E-mail:

Qualification for Participation in the Consultation:

Construction of mined/bored transport tunnels longer than 500 m. The Client requires that the financial scope of the experience to be submitted by the contractor should be at least CZK 2 billion and should have occurred in the last 10 years.	
Reference Contract 1:	
Reference Contract 2:	

By signing the Form, the interested party gives their explicit consent to the processing of personal data and the recording of the meeting.

Place _____, dated

Name:

Title: