

Notice of the commencement of preliminary market consultations – Reverse water pumping at the Hričov HPP, Mikšová HPP and Považská Bystrica HPP cascade

Slovenské elektrárne, a.s., Pribinova 40, 811 09 Bratislava – Ružinov municipal district, Company ID No.: 35 829 052 (hereinafter referred to as the “contracting entity” or “SE”), pursuant to Section 25 of Act No. 343/2015 Coll. on Public Procurement (hereinafter referred to as the “PPA”), is conducting preliminary market consultations concerning the subject matter of the contract Reverse Water Pumping at the Orava Waterworks (hereinafter referred to as the “PMC”).

I. Basic information

Contracting entity: Slovenské elektrárne, a.s., Pribinova 40, 811 09 Bratislava – Ružinov municipal district, Company ID No.: 35 829 052; contact person: Miroslav Blažko; e-mail: miroslav.blazko@seas.sk; Telephone: +421 910 805 788

Link: ERANET, <https://seas.eranet.sk/#/tenderPublicDetails/19697>

II. Purpose of the preliminary market consultations

In accordance with the principles of public procurement, the purpose of the PMC is to:

1. Identify the range of potentially suitable suppliers on the market;
2. Obtain and evaluate feedback from potential interested parties participating in the preliminary market consultations;
3. Identify existing technical solutions;
4. Identify possible technological alternatives;
5. Identify and assess possible risks during the implementation of the individual technical alternatives;
6. Formulate and verify non-discriminatory conditions for participation;
7. Formulate commercial terms enabling all suitable suppliers to submit a tender;
8. Identify requirements that could prevent the submission of a tender;
9. Determine the estimated contract value.

In addition to the above, the objective and purpose of the preliminary market consultations is to:

- assess the feasibility of a reverse water pumping system at the Hričov Hydroelectric Power Plant (hereinafter referred to as “HPP”), the Mikšová HPP and the Považská Bystrica HPP;
- propose technical alternatives, options and framework structural modifications to the existing parts of the HPPs.

The consultations on this matter are intended to broaden the technical basis and examine the technical and economic feasibility of modifications at the Hričov HPP, Mikšová HPP and Považská Bystrica HPP.

SE intends to implement a reverse water pumping system at the Hričov HPP, Mikšová HPP and Považská Bystrica HPP. As all three HPPs are located on the Hričov Canal, the pumping system must be designed as an integrated system for all three HPPs simultaneously. In this case, the Nosice reservoir constitutes the lower reservoir and the Hričov reservoir constitutes the upper reservoir.

Reverse pumping will enable SE to respond more efficiently to changes in electricity prices on the SPOT electricity market. The proposed solution will also have a positive impact on water retention in the landscape.

The subject of the PMC is to verify the proposed technical designs and, at the same time, identify market options based on other technical designs. With regard to the reverse water pumping variants considered below, the Contracting Entity welcomes proposals for their modification in view of the technical capabilities of economic operators.

III. Brief description of the subject matter of the contract and the PMC

Main components of the individual cascade stages:

- Hričov stage
- Mikšová stage
- Považská Bystrica stage

Hričov waterworks

Table of the main elevation levels of the Hričov waterworks

Elevation levels of water surfaces and structures at the Hričov weir and hydroelectric power plant	a.s.l.
Maximum upper operating water level	326.10
Minimum upper operating water level (design)	322.60
Minimum upper operating water level (adjusted)	323.60
Elevation of the upper edge of the spiral casing	321.10
Maximum lower operating water level	317.36
Minimum lower operating water level	316.41
Maximum head	10.20 m
Minimum head	5.00 m
Mean annual flow	129.0 m ³ .s ⁻¹
Mean annual flow in a dry year	87.5 m ³ .s ⁻¹
Mean annual flow in a wet year	155.0 m ³ .s ⁻¹

*/ The minimum operating water level was temporarily raised due to sedimentation in the reservoir and to prevent sediment from being carried into the HPP turbines, until the deposits are removed.

The HPP is equipped with three vertical Kaplan turbines with generators having the following parameters:

Maximum head	H _{max} 10.29 m; 326.10 - 315.81 a.s.l.
Installed capacity	31.5 MW; 3 x 10.5 MW
Turbine discharge capacity by number of turbine-generator units in operation:	Q (m ³ .s ⁻¹)
1	133.30
2	266.60
3	400.00

Hričov HPP bypass conduits

Each of the three blocks contains two circular bypass conduits with a diameter of 2.8 m. The capacity of one conduit is $66.5 \text{ m}^3 \cdot \text{s}^{-1}$, and the total capacity of the conduits is $399 \text{ m}^3 \cdot \text{s}^{-1}$. A conduit is operated only in the closed or open position; the flow rate depends solely on the head.

Mikšová waterworks

Table of the main elevation levels of the Mikšová waterworks

Elevation levels of water surfaces and structures at the Mikšová hydroelectric power plant	a.s.l.
Maximum upper operating water level	317.00
Minimum upper operating water level (design)	316.70
Minimum upper operating water level (adjusted)	316.00
Elevation of the upper edge of the spiral casing	293.10
Maximum lower operating water level	293.79
Minimum lower operating water level	292.71
Maximum head	23.90 m
Minimum head	21.75 m

The HPP is equipped with three vertical Kaplan turbines with generators having the following parameters:

Maximum head	$H_{\max}$ 24.34 m; 317.40 - 293.06 a.s.l.	
Installed capacity	93.6 MW; 3 x 31.2 MW	
Turbine discharge capacity by number of turbine-generator units in operation:	$Q \text{ (m}^3 \cdot \text{s}^{-1} \text{)}$	$Q \text{ (m}^3 \cdot \text{s}^{-1} \text{)}$ with overload flow
1	133.30	168.00
2	266.60	336.00
3	400.00	504.00

Mikšová HPP bypass conduits

Each of the three blocks contains two circular bypass conduits with a diameter of 2.5 m. The capacity of one conduit is $71.6 \text{ m}^3 \cdot \text{s}^{-1}$, and the total capacity of the conduits is $429.60 \text{ m}^3 \cdot \text{s}^{-1}$. A conduit is operated only in the closed or open position; the flow rate depends solely on the head.

Považská Bystrica waterworks

Table of the main elevation levels of the Považská Bystrica waterworks

Elevation levels of water surfaces and structures at the Považská Bystrica hydroelectric power plant	a.s.l.
Maximum upper operating water level	293.60
Minimum upper operating water level (design)	293.10
Minimum upper operating water level (adjusted)	292.60

Elevation of the upper edge of the spiral casing	280.55
Maximum lower operating water level	281.20
Minimum lower operating water level	274.60
Maximum head	16.18 m
Minimum head	12.84 m

The HPP is equipped with three vertical Kaplan turbines with generators having the following parameters:

Maximum head	$H_{\max} : 293.10 - 276.82 = 16.28 \text{ m}$	
Installed capacity	55.2 MW; 3 x 18,4 MW	
Turbine discharge capacity by number of turbine-generator units in operation:	Q (m ³ .s ⁻¹)	Q (m ³ .s ⁻¹) with overload flow
1	133.30	168.00
2	266.60	336.00
3	400.00	504.00

Považská Bystrica HPP bypass conduits

Each of the three blocks contains two circular bypass conduits with a diameter of 2.8 m. The capacity of one conduit is 75 m³.s⁻¹, and the total capacity of the conduits is 450.0 m³.s⁻¹.

Expected scope of the PMC includes:

- Preparation of technical proposals (technical description, layout, cross-sections, etc.) for the implementation of the considered reverse pumping Variants V1 and V2 , or another reverse-pumping alternative, covering:
 - Civil structures
 - Technological equipment – pump(s), electric motor(s)
 - Discharge pipeline and fittings
- Preparation of an indicative budget for the implementation of the technical proposals

IV. Currently considered reverse water pumping variants

Variant 1 – separate pumping stations and new discharge pipelines (green)

Description:

This variant considers a new, separate discharge pipeline, which may also have a diameter different from that of the bypass conduit. To standardise the construction process, it was further assumed that the same pipeline and the same types of fittings and pumps would be used at all three HPPs. The pipeline is envisaged as being laid in the terrain.

Variant 2 – separate pumping stations and the use of one bypass conduit for discharge (purple)

Description:

This variant considers extending the bypass conduit pipeline from the bypass conduit outlet to a separate pumping station. The pumping stations are proposed on the right bank of each HPP. Likewise, the bypass conduits considered for use in this variant are those located closest to the right bank of the tailrace canal. This variant assumes an extended pipeline with the same diameter as the respective bypass conduits.

Parameters of the conduits and pipelines proposed at the individual HPPs:

HPP		Hričov	Mikšová	Považská Bystrica
Bypass conduits				
Number of conduits	ks	6	6	6
Conduit diameter	mm	2 800	2 500	2 800
Conduit length	m	28	32,5	25
Capacity of 1 conduit	m ³ .s ⁻¹	66.50	71.60	75.00
Capacity of 6 conduits	m ³ .s ⁻¹	399.00	429.60	450,00
Variant 1				
Pipeline diameter	mm	2 500	2 500	2 500
Total pipeline length	m	135	105	85
Variant 2				
Pipeline diameter	mm	2 800	2 500	2 800
Bypass conduit length	m	28	32,5	25
New pipeline length	m	50	30	45
Total pipeline length	m	78	62.5	70

Hričov HPP – proposed pipeline routing:



Mikšová HPP – proposed pipeline routing:



Supplement concerning the Mikšová HPP – Variant 1:

- At the Mikšová HPP, Variant 1 would require not only routing beneath the road but also passing the new pipeline beneath the structure of the trash-rack debris chute. The chute was reconstructed recently, and it should be possible to install the proposed new pipeline underneath it. However, this complicates the detailed routing and anchoring of the pipeline.
- As an alternative, connecting the new pipeline to the canal through the right-hand intake wing wall of the HPP was also considered, but this option was subsequently ruled out.
- The pipeline route was selected up to the profile where the headrace canal reaches its full width, so that the pipeline would not affect the inflow to the HPP's right-hand turbine.

Považská Bystrica HPP – proposed pipeline routing:



Supplement concerning the Považská Bystrica HPP – Variant 1:

- The optimal solution appears to be routing the new pipeline beneath the ice-pass bridge structure and placing the pipeline in this passage. This would resolve the crossing beneath the road above the turbine outlets. An advantage of this solution is that the ice passage is practically unused and changing its function should not affect the operation of the Považská Bystrica HPP.

Pump proposal – Variant 1

No pump parameters were proposed for this variant.

Pump proposal – Variant 2

In terms of flow rates, pump flow rates of 15, 20 and 30 $\text{m}^3 \cdot \text{s}^{-1}$ were assessed. Flow rates of 15 $\text{m}^3 \cdot \text{s}^{-1}$ and 20 $\text{m}^3 \cdot \text{s}^{-1}$ were selected for one pump (alternatively, $2 \times 7.5 \text{ m}^3 \cdot \text{s}^{-1}$ and $2 \times 10 \text{ m}^3 \cdot \text{s}^{-1}$). A flow rate of 30 $\text{m}^3 \cdot \text{s}^{-1}$ could be achieved by combining several pumps.

HPP		Hričov	Mikšová	Považská Bystrica
Max. upper water level	a.s.l.	326.60	317.00	293.60
Min. upper water level	a.s.l.	322.60	314.50	291.10
Lower water-level range				
Max. lower water level	a.s.l.	317.00	293.60	279.60
Min. lower water level	a.s.l.	314.50	291.10	274.60
Design heads – geodetic height				
$H_{\max}$	m	12.10	25.90	19.00
$H_{\min}$	m	5.60	20.90	11.50
Design parameters I				
Design flow rate	$\text{m}^3 \cdot \text{s}^{-1}$	15		
Pipeline diameter	mm	2 800	2 500	2 800
Pipeline velocity	$\text{m} \cdot \text{s}^{-1}$	2.44	3.06	2.44
Bypass length	m	28	32,5	25
New pipeline length	m	80	60	70
Total pipeline length	m	108	92.5	95
Losses in the bypass	m	0.375	0.731	0.412
Losses in the new pipeline	m	0.144	0.230	0.162
Total losses	m	0.519	0.961	0.574
Max. delivery head	m	12.62	26.86	19.57
HPP		Hričov	Mikšová	Považská Bystrica
Design parameters II				
Design flow rate	$\text{m}^3 \cdot \text{s}^{-1}$	20		
Pipeline diameter	mm	2 800	2 500	2 800
Pipeline velocity	$\text{m} \cdot \text{s}^{-1}$	3.25	4.07	3,25
Bypass length	m	28	32,5	25
New pipeline length	m	80	60	70
Total pipeline length	m	108	92,5	95
Losses in the bypass	m	0.666	1.299	0.732
Losses in the new pipeline	m	0.253	0.406	0.285
Total losses	m	0.919	1.704	1.017
Max. delivery head	m	13.02	27.60	20.02

Pumping station design

The pumping station design must correspond to the pumps proposed according to the parameters specified in the preceding table.

V. Identification of the subject matter of the procurement according to CPV codes

45251120-8 Construction work for hydroelectric power stations

42122130-0: Water pumps

45240000-1 Construction work for water projects

45232152-2 Pumping station construction work

45220000-5 Engineering works and construction works

VI. Requirements for interested parties

1. Economic operators authorised to perform the contract may apply to participate in the preliminary market consultations; the contracting entity will verify this fact using available registers. This requirement does not apply to independent experts and independent institutions participating in the preliminary market consultations.
2. In view of the purpose of the preliminary market consultations, the contracting entity requires the interested party to appoint a representative with sufficient technical and commercial knowledge of the subject matter of the PMC.
3. Considering the complexity of the matter, interested parties may, if necessary, be invited to participate in several rounds of the PMC in order to progressively refine the requirements on the basis of consultations with other interested parties. In the case of simple supplementary questions, the contracting entity reserves the right to consult interested parties in writing; where necessary, consultations may also take place orally or by means of a site inspection.
4. If the number of parties interested in participating in the PMC exceeds **5**, the contracting entity reserves the right to invite to subsequent rounds, or to individual consultations within the PMC, the **5** interested parties demonstrating the greatest number of relevant experiences in implementing similar projects during the preceding 15 years, calculated from the date of publication of this PMC.
5. The remaining interested parties not invited to the next round of the PMC or to an individual meeting within the PMC will be contacted by the contracting entity in writing, by means of an electronic questionnaire, with a set of questions and topics relating to the contract and will be given an opportunity to express their views, observations and proposals for changes.

VII. Participation in the preliminary market consultations

1. Interested parties wishing to participate in the PMC shall register their participation **by September 15th 2026 at 22:00** via the ERANET information system at <https://seas.eranet.sk/#/tenderPublicDetails/19697>.
2. After expressing an interest in participating in the PMC by registering through the ERANET information system at <https://seas.eranet.sk/#/tenderPublicDetails/19697>, the interested party will automatically be given access, in addition to this notice, to a non-disclosure agreement concerning confidential information (hereinafter referred to as the "NDA"), Annex No. 2. Once a scanned copy of the NDA signed by the interested party in Slovak or English has been received, the interested party will also be provided with documentation containing further detailed information available.
3. Within the above deadline, the interested party shall submit a list of reference contracts, the signed NDA and any supplementary questions concerning the PMC.
4. Interested parties will be informed about the next steps and deadlines via the ERANET information system.

5. Within the specified deadline according to the previous point 4., the interested party shall submit a technical proposal (technical description, layout, cross-sections, etc.) for implementing the considered reverse pumping variant, in the form of a completed PMC Form – Annex No. 1, together with an indicative budget for implementing its technical proposal.
6. If an interested party expresses an interest in participating after the deadline specified in point 1. of this article or submits its proposals after the specified deadline, the contracting entity reserves the right to evaluate them only if this is administratively possible in view of the stage reached in the PMC process.

VIII. Conduct of the preliminary market consultations

1. All written communication during the consultations will take place exclusively electronically through the ERANET communication interface at <https://seas.eranet.sk/#/tenderPublicDetails/19697>
2. All costs and expenses associated with participation in the PMC shall be borne by the interested party, without any entitlement to financial compensation from the contracting entity.
3. After the deadline for submitting responses to the PMC has expired, the contracting entity will draw up a list of PMC participants and inform them of the next steps, i.e. subsequent rounds, dates, venue, format and time of the PMC, or the holding of an individual consultation.
4. Where necessary, the contracting entity will conduct an individual PMC concerning any submitted proposal if the contracting entity identifies such a need in relation to that proposal, for the purpose of explaining or supplementing it. To ensure transparency and avoid distortion of competition, the individual preliminary market consultation will take place at the contracting entity's premises, where necessary at the implementation site, or via a video-call application, and minutes will be drawn up. The minutes covering the entire course of the consultation will form part of the contracting entity's documentation. Before the individual consultation begins, the economic operator will give consent to the making of an audio-visual recording. The recording and the minutes covering the entire course of the consultation will form part of the contracting entity's documentation. An attendance list will also be drawn up for each meeting and will form part of the contracting entity's documentation.
5. After completion of the PMC, the contracting entity will publish minutes of the PMC on the contracting entity's profile. Through these minutes, the contracting entity will disclose in particular the information obtained from PMC participants that led to changes or amendments to the tender documentation.
6. The contracting entity reserves the right to amend information concerning the conduct and content of the PMC at any time during the consultations. In accordance with the principles of transparency and non-discrimination, the contracting entity will provide sufficient advance notice of any changes. All relevant actions of the contracting entity will be recorded in the minutes of the PMC and will contribute to achieving the purpose of the PMC.
7. The languages of communication during the consultations will be Slovak, Czech or English.
8. The contracting entity will take appropriate measures to protect confidential information that may be provided during the consultations. The party interested in the PMC shall identify information it considers confidential and requires to be treated accordingly.
9. By participating in the PMC, economic operators have an opportunity to present their knowledge and proposals concerning the subject matter of the contract. The contracting entity intends to fulfil the principle of obtaining the best quality for the funds expended and to define the technical and other requirements in a manner that complies with all public procurement principles and allows them to be used in the subsequent public procurement procedure.

10. The contracting entity will evaluate the information and knowledge obtained from the PMC and subsequently determine the estimated contract value, technical requirements, delivery period and other conditions and tender evaluation criteria so that performance of the contract achieves the stated purpose at the best quality and price. Economic operators participating in the PMC may subsequently participate in the procedure for awarding the planned contract and submit a tender. To ensure that the participation of a particular interested party or tenderer does not distort competition, the contracting entity has established the measures described above to safeguard the principles of transparency and non-discrimination.

List of annexes: Annex No. 1 – PMC Form

Annex No. 2 – NDA (Slovak and English versions)