

INVITATION FOR PREQUALIFICATION

REPUBLIC OF BULGARIA
MUNICIPAL INFRASTRUCTURE DEVELOPMENT PROJECT

Rehabilitation of Studena Dam
Loan No. 7834-BG
Project ID No. P099895-II

Invitation for prequalification

The Government of Republic of Bulgaria has received financing from the World Bank toward the cost of the Municipal Infrastructure Development Project, and it intends to apply part of the proceeds toward payments under the contract for Rehabilitation of Studena Dam. This contract will be jointly financed by the budget of Republic of Bulgaria, through the budget of Ministry of Regional Development and Public works. Bidding will be governed by World Bank's eligibility rules and procedures. The Ministry of Regional Development and Public Works intends to prequalify contractors and/or firms for MIDP-CW-ICB-3 Rehabilitation of Studena Dam.

The Studena Water Power System is built up in the period 1950-1953 in the upper Struma River course upstream the village of Studena. The System is multifunctional: supply of water for drinking and industrial purposes and for irrigation, retention of flood water in the Struma River and prevention flooding of arable lands and settlements, electric power generation. The main sources for the dam lane impounding are the Struma River and tributaries thereof: Matnitsa and Kladnitsa Rivers. Additional water is delivered to the dam lake from the Vladaiska and Palakariiska Rivers through the Vladaiski and Palakariiski channels.

The dam body is a concrete, hollow gravity, Nocli type one, built up of 25 concrete blocks (buttresses). Maximum dam height is 55.00m.

The energy is dissipated by means of existing stilling basin and lateral-flow spillway. The stilling basin is 6.00 m wide and 43.00 m long.

The bottom outlet is built in expanded block 15th of the dam body. The bottom outlet comprises two pipes DN1000 with conveyance capacity of 30 m³/s each at water level on 840.0 m in the dam lake.

The water intake tower is built up out of the dam body and is founded in the foundation pit right-hand slope on elevation 811.80. The tower is a single-chamber one with wet chamber.

The pressure tunnel starts from the water intake tower at elevation 811.00 m (811.80 m). The tunnel profile is bored with great overcuts filled up according to archive data with concrete.

The grouting curtain is a single-row one with boreholes drilled at intervals of 1.50 m to depths 16÷22 meters. The curtain is deepest under the dam central blocks where boreholes are reaching down to elevation 760.00, i.e. to 22.00 meters depth.

The Applicant shall have to perform the following main activities:

No	Part/Item	Unit	Qty
1.	STUDENA DAM WALL		
1.1	<i>Upstream slope</i>		
1.1.1.	Rehabilitation and repair of the upstream slope of the dam wall by installation of geomembrane, incl.	m ²	5 353
1.1.1.1	in dry	m ²	3 353
1.1.1.2	under water	m ²	2 000
1.2	<i>Downstream slope</i>		
1.2.1.	Repair of the concrete surface of the downstream slope	m ²	6 940
1.3	<i>Spillway, flat gates and stilling basin</i>		
1.3.1	Repair of flat gates	pcs	3
1.3.2	Repair of the concrete surface of the spillway	m ²	1770
1.3.3	Repair of the concrete surface of the stilling basin	m ³	1 300
1.4	<i>Dam crest L=260 m, B=7,50 m</i>		
1.4.1	Repair of road bed, solid railings, sidewalks, etc. along the dam crest	m	260
1.5	<i>Grouting chamber</i>		
	Boring and grouting works from the grouting chamber at the bottom of the dam wall	m	2 205
1.6	<i>Part Electricity and equipment</i>		
1.6.1	Repair of electric panels and systems for the monitoring of the state and management of dam wall facilities	set	1
1.6.2	Rehabilitation and replacement of power supply system and lighting of the dam wall facilities	set	1
1.7	<i>Roads and sites</i>		
1.7.1	Repair of access roads and sites at the dam wall	m ²	4 700
1.7.2	Service building rehabilitation	pcs	1
1.7.3	Fence repair	m	1 170

2.	BOTTOM OUTLET, STILLING BASIN AND DISCHARGE CHANNEL		
2.1	Repair of the structure of inlet chamber of the bottom outlet	set	1
2.2	Replacement of wedge gate valves of the bottom outlet DN1000	pcs	2
2.3	Replacement of power system and systems for the management of the bottom outlet	set	2
2.4	Repair and rehabilitation of concrete structure of the stilling basin	m ²	745
2.5	Repair and improvement of the status of discharge channel	m ²	2 300
3.	WATER INTAKE TOWER H = 35 m		
3.1	Rehabilitation and enhancement of the steel structure of water intake tower, executed partially under water	pcs	1
3.2	Rehabilitation and enhancement of the steel structure of service bridge to the intake tower	pcs	1
3.3	Repair and replacement of electro-mechanical equipment of the water intake tower	set	1
3.4	Repair and replacement of power system and systems for the management of the intake tower	set	1
4.	PRESSURE TUNNEL, PRESSURE PIPELINE AND INLET CHAMBER AFTER WATER INTAKE TOWER		
4.1	Repair of the pressure tunnel casing D=1,60 m after the water intake tower	m	60
4.2	Repair works in the passable tunnel of the pressure pipeline, incl. boring and grouting works	set	1
4.3	Demolition of existing and construction of new inlet chamber at the end of the pressure pipeline	pcs	1
4.4	Dismantling of steel penstock Ø1120x10 mm, placed in a tunnel	m	235
4.5	Replacement of wedge gate valve and butterfly valve DN1100, PN10	set	1
4.6	Delivery and installation of new steel penstock Ø1120x10 - placed in a tunnel	m	235
4.7	Delivery and installation of wedge gate valve DN1000, PN10 with a by-pass and el. Operation; unit weight – 3750 kg	pcs	1
4.8	Delivery and installation of butterfly valve DN1100, PN10, hydraulic operation	pcs	1
4.9	Delivery and installation of wedge gate valve DN200, PN10, manual operation	pcs	3

4.10	Replacement of power system and systems for management of pressure pipeline and inlet chamber	set	1
5.	CONTROL MEASUREMENT SYSTEM	set	1
.5.1	Construction of new geodetic system and deformation measuring devices;		
5.2	Installation of new vertical level devices		
5.3	Installation of new vertical level devices		
5.4	Construction of new drainage system and filtration monitoring and control devices;		
5.5	Construction of new piezometric system		
5.6	Installation of new meteorological station		
5.7	Installation of new seismic activity recording station		
5.8	Information transmission and processing system		

Prequalification will be conducted through the procedures as specified in the World Bank's [*Guidelines: Procurement under IBRD Loans and IDA Credits*](#), (edition May 2004, revised October and May 2010), and is open to all eligible bidders as defined in the guidelines.

Interested eligible bidders may obtain further information from the Ministry of Regional Development and Public Works at the address below during office hours from 09.00 to 17.00 hours. A complete set of prequalification documents in English may be downloaded from the web site of Ministry of Regional Development and Public Works - <http://www.mrrb.government.bg>.

Applications for prequalification should be submitted in clearly marked envelopes and delivered to the address below by 12.00 noon on 12.01.2015. Late applications will be rejected.

Ministry of Regional Development and Public Works

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