### **Greenko RJ01 IREP Private Limited**

Registered Office: 1<sup>st</sup> floor, Khasara No. 63, Near Shabad Bus Stand, Baran, Rajasthan, India, 325217.

#### ICB/TENDER No.: RJ01 - PSP/SHAHPUR/ELECTRO-MECHANICAL PACKAGE/001 dated 06<sup>th</sup> March 2024

#### INTERNATIONAL COMPETITIVE BIDDING (TWO PART BID)

M/s Greenko RJ01 IREP Private Limited invites **Sealed Bids** from eligible Bidders / EPC Contractors for implementation of the Project is envisaged through Design, Engineering, Model Testing, Procurement, Manufacturing, Shop Testing, Packing, Insurance, Supply, Transportation to site, Storage, Installation, Erection, Testing & Commissioning, Trial Operation, and conducting Performance Guarantee Tests of Electro-Mechanical Package on **EPC Basis on FIRM & FIXED** Price till the completion of Project Schedule for 1800 **MW Pumped Storage Project (PSP)** 

Brief scope includes (but not limited to):

### PACKAGE-A:

### Electro-Mechanical from MIV to LV terminal Connection of Generator Transformer

- a) Electro Mechanical Equipment from MIV to LV terminal connection of Generator/Motor transformer, broadly consists of "Main Inlet Valve (MIV) and, its associated equipment, Pump-Turbine (5x300 MW-Fixed Speed Machines) and its Auxiliaries, Generator – Motor and its Auxiliaries, Governors, Static Excitation System, Static Frequency Converters (SFC), Starting Bus system connecting to all machines with SPBD including isolators, CLR and VCB's suitable for back to back and SFC starting modes, Phase Reversal Disconnector Switch (PRDS), Isolated Phase Bus Duct (IPBDs), Associated LV switchgear for the auxiliaries under Contractor's scope, Complete plant SCADA, Instrumentation, Controls and Protection, Special interconnecting Cables & accessories" including supply of Critical Spares (15,000 Hrs) and Mandatory Spares and list of Recommended Spares which are required for 5 Years of Trouble Free operation.
- b) Electro Mechanical Equipment from MIV to LV terminal connection of Generator/Motor transformer, broadly consists of "Main Inlet Valve (MIV) and, its associated equipment, Pump-Turbine (2x150 MW-Fixed Speed Machines) and its Auxiliaries, Generator – Motor and its Auxiliaries, Governors, Static Excitation System, Starting Bus system connecting to all machines with SPBD including isolators, CLR and VCB's suitable for back to back and SFC starting modes, Phase Reversal Disconnector Switch (PRDS), Isolated Phase Bus Duct (IPBDs), Associated LV switchgear for the auxiliaries under Contractor's scope, Complete plant SCADA, Instrumentation, Controls and Protection, Special interconnecting Cables & accessories" including supply of Critical Spares (15,000 Hrs) and Mandatory Spares and list of Recommended Spares which are required for 5 Years of Trouble Free operation.

Ref.: RJ01 - PSP/SHAHPUR/ELECTRO-		Page
MECHANICAL PACKAGE/001	ICB: E&M Package	1 of 11

greenks

## Package – B:

## Balance of Plant (E-BoP & M-BoP for the total station)

Balance of Plant for 400 kV Pothead yard equipment-CT, PT, CVT, Lightening Arrestors, Isolators, OPGW/PLCC, Power Transformers, 400 kV GIS, HT & LT Switchgear Panels, Earthing System, FRLSH Cables (MV & LV Power, control & Instrumentation with accessories), Cable Trays and Accessories, Auxiliary Station supply Transformers, Auxiliary Unit Transformers, 220 V DC Battery System, complete plant Illumination System, HVAC System, including EOT Cranes, Fire Protection, Detection and Firefighting system, DG Set (11kV, 1010 kVA) including all associated supporting Structures and accessories including all interfaces with package – A scope in complete.

## REMARKS:

## 1. Bidder shall provide OPTIONAL Price for:

- a) Power Transformers
- b) 400 kV GIS
- c) EOT Crane

**Exclusions:** Civil Works from the above scope is excluded.

Ref.: RJ01 - PSP/SHAHPUR/ELECTRO- MECHANICAL PACKAGE/001	ICB: E&M Package	Page 2 of 11
MECHANICAL PACKAGE/001	-	2 OF 11

## CONTENTS

SI. No.	Description
VOLUME – I	ICB Documents
PART - I	Notice Inviting Tenders (NIT/ ICB)
PART - II	Instructions to Bidders (ITB)
VOLUME -II	Special and General Terms & Conditions
	Definitions
PART - I	Special Conditions of Contract (SCC)
PART - II	General Conditions of Contract (GCC)
VOLUME - III	Technical Specification of EM Package
PART - I	Project Information, Scope and Technical Specification
VOLUME – IV	Attachments
P <mark>ART - I</mark>	Attachments for Pre-Qualification/Tech Bid
PART - II	Attachments for Price Bid
PART - III	EHS and HOTO

Ref.: RJ01 - PSP/SHAHPUR/ELECTRO- MECHANICAL PACKAGE/001	ICB: E&M Package	Page 3 of 11
HECHANICAL FACKAGE/ 001		50111

1800 MW PUMPED STORAGE PROJECT (PSP)INTERNATIONAL COMPETITIVE BIDDING (ICB) (VOLUME I)Ofeen keep						
	Greenko RJ01 IREP Private Limited Registered Office: 1 <sup>st</sup> floor, Khasara No. 63, Near Shabad Bus Stand, Baran, Rajasthan, India, 325217 VOLUME - I: PART - I NOTICE INVITING TENDER NO. RJ01 - PSP/SHAHPUR/ELECTRO-MECHANICAL PACKAGE/001					
1.	Name of the Project	•	WO PART	BID) age (PSP) [Hydro Electi	ric Project]	
2.	Company Name	GREENKO RJ01	IREP PRI	ATE LIMITED		
3.	Tender Inviting Authority	Vice President	- C&P (IRE	P Projects)		
4.	Tender Notice No.	RJ01 - PSP/SH	AHPUR/ELE	CTRO-MECHANICAL PACK	AGE/001	
	Internati	ional Competitiv	ve Biddin	g (ICB)		
5.	Scope of Work	Testing, Packin Installation, Enconducting Per- on <u>EPC Basis</u> Schedule for 3 Brief scope in <u>PACKAGE-A:</u> Connection of Electro Mechan terminals, broa equipment, Put Machines) an Governors, S Disconnector S LV and MV swit Protection, Sp	ng, Insura rection, To formance on <u>FIRM</u> 1800 MW cludes (b <u>Electro-</u> <u>Generate</u> dits Equip dits Auxi tatic Fre witch(PRD tchgear, S ecial inter	del Testing, Procurement, ince, Supply, Transportatesting & Commissioning, Guarantee Tests of Electrice & FIXED Price till the constraint of the storage Project at not limited to): Mechanical from MIV or Transformer Dement's from MIV to Gents of "Main Inlet Valve (Main Storage Project) of "Main Inlet Valve (Main Storage Project) (S), Isolated Phase Bus Duccets of S), Isolated Phase Bus Duccets (SF S), Isolated Phase Bus Duccets (SF S), Isolated Phase Bus Duccets (SF) (Connecting Cables & acconstraint), Acconnecting Cables & acconstraint)	tion to site, Storage Trial Operation, an ro-Mechanical Packag ompletion of Projec at (PSP) / to LV termina / to LV termina // to LV termina	
Balance of Plant (E-BoP & M-BoP)         Balance of Plant for 400 kV Pothead yard equipment-C         Lightening Arrestors, Isolators, OPGW/PLCC, HT & LT Switch         Earthing System, FRLSH Cables (Power, control & Instrume         accessories), Cable Trays and Accessories, Auxiliary Station T         Auxiliary Unit Transformers, CT's, LAVT, Battery System,         System, HVAC System, including all associated Structures and         in complete, including Power Transformers, 400 kV GIS, EOT         Protection, Detection and Firefighting system, DG Set (11kV,				LT Switchgear Panels Instrumentation with Station Transformers System, Illuminatio Ictures and accessorie GIS, EOT Cranes, Fir		
Ref.: RJ01 - PSP/SHAHPUR/ELECTRO-     ICB: E&M Package     Page       MECHANICAL PACKAGE/001     4 of 11						

	Bidder shall provide OPTIONAL Price for:		
	Blader shall provide <u>or fronze rine</u> for		
	a) Power Transformers b) 400 kV GIS c) EOT Crane		
	Exclusions: Civil Works from the above scope is excluded		
	For 1800 MW Shahpur Pumped Storage Project (PSP)		
_	This Tender is on EPC basis for complete Scope as defined above and Contract Price shall be <b>FIRM &amp; FIXED</b> throughout the Performance of the Contract without any Price Escalation whatsoever be the reasons on any ground.		
(770 m	<b>1800 MW OFF STREAM CLOSED LOOP PUMPED STORAGE PROJECT</b> ( <b>PSP</b> ) on EPC -Turnkey basis for complete Electro-Mechanical Works at		
Capacity and Location of the work	Village: Shahpur, Tehsil/Mandal: Shabad, District: Baran, State: Rajasthan, PIN: 325217		
Tender Type	Tenders through "International Competitive Bidding"		
	Two Part type: Part - I: Pre-Qualification & Technical Bid		
Tender Category	Part - II: Price Bid and Commercial Terms & Conditions EPC Basis on FIRM & FIXED Price basis throughout the Contract Completion Period (Tender through International Competitive Bidding)		
Cost of Document	Nil		
	1 <sup>st</sup> Unit COD in 24 months		
Period of Completion (from the date of LOA)	Last Unit COD by 30 months (All Units Completion)         {Bidders to provide detailed milestone schedule-Unit wise COD accordingly)		
Bid Security (EMD)	Rs.1.00 Crores [Rupees One Crore only]		
(Please refer to Clause No: 10 of V (Instruction to Bidders-ITB)	The EMD can be paid in the form of a Bank Guarantee from any Nationalized/ International banks through confirmation by Indian Nationalized Banks and Original Bank Guarantee shall be submitted along with Tender.		
Bid Security Payable to	<ul> <li>a) The Bank Guarantee shall be obtained in favor of M/s GREENKO RJ01 IREP PRIVATE LIMITED from any Nationalized/ International banks through confirmation by Indian Nationalized Banks in the prescribed format (refer to the Annexures). The EMD B.G. shall have the validity up to 180 Days from the date of Bid submission date.</li> <li>b) Addressed to Vice President, C&amp;P (IREP Projects)</li> </ul>		
	Location of the work Tender Type Tender Category Cost of Document Cost of Document Period of Completion (from the date of LOA) Bid Security (EMD) (Please refer to Clause No: 10 of V (Instruction to Bidders-ITB) Bid Security		

Ref.: RJ01 - PSP/SHAHPUR/ELECTRO- MECHANICAL PACKAGE/001	ICB: E&M Package	Page 5 of 11
---	------------------	-----------------

1800 MW PUMPED STORAGE PROJECT<br/>(PSP)INTERNATIONAL COMPETITIVE<br/>BIDDING (ICB) (VOLUME I)Of@OK®

1	f.: RJ01 - PSP/SHAH	1PUR/ELECTRO-	
19.	(PQ: Pre- Qualification)	A. The Bidder shall be a manufacturer/Joint Venture/ Consortium having experience in execution of Large Hydro Power Projects specifically in Hydro Pumped Storage Projects / Lift Irrigation Projects and related to E&M equipment viz., TG units with auxiliaries and Electrical & Mechanical BoP <sub>7</sub> including Design, Engineering, Manufacturing, supply, erection, testing, commissioning and Performance Guarantee Testing.	
18. 19.	Bid Validity Eligibility Criteria	180 days from the date of Bid submission date Eligibility Criteria (TECHNICAL):	
17.	Bid Submission	Technical Bids shall also be submitted thru Electronic Transfer (Sign 8 Scanned copies) and Hard Copies by Courier/in-person.         Part 2:         Commercial Offers including Price Bid shall be submitted in Sealed Envelope (in-person) only.         180 days from the date of Bid submission date	
		Part 1: Technical Bide chall also be submitted thru Electronic Transfer (Sign 8	
16.	Bid Submission closing Date	Latest by <u>29<sup>th</sup> May 2024</u>	
15.	Pre-Bid meeting Date	Prospective Bidders are advised to mail their queries, To: manish.a@greenkogroup.com CC: mohiddin.sk@greenkogroup.com madhava.b@greenkogroup.com all the queries shall be discussed and addressed with respective Bidder	
14.	Schedule Available Date	06 <sup>th</sup> March 2024, onwards	
		The Contract Performance Guarantee shall be released on successful completion of Defects Liability Period including extensions thereof, if any or issuance of Acceptance Certificate, after completion of Defects Liability Period whichever is later.	
		The successful Bidder shall furnish Contract Performance Bank Guarantee for 10% of contract value within one month from the date of Letter of Award/on the day of Signing of the Contract towards the "Contract Performance Bank Guarantee" in the prescribed format (enclosed in the Tender Document). This Guarantee shall remain valid till the completion of the Project + Defect Liability Period (24 months) of all the equipment and works with a claim period of 90 days over and above the guarantee period. Apart from this, JV Partner shall submit 2% CPBG towards Contract Performance and shall be kept valid upto <b>Defect Liability</b> <b>Period</b> .	
		(b) Contract Performance Bank Guarantee (CPBG) of 2% equivalent Value of JV Partners shall be submitted (2% value of JV partner's Components).	
13.	Contract Performance Bank Guarantee (CPBG)	Contract Performance Guarantee shall consist of two parts. (a)Contract Performance Bank Guarantee (CPBG) for 10% value of the Contract, which is to be submitted on the date of signing of Contract and	

<b>1800 MW PUMPED STORAGE PROJECT</b>	INT
(PSP)	B

MECHANICAL PACKAGE/001

greenko

<ul> <li>JV members shall be Jointly and severally responsible for the execution of the total Contract.</li> <li>C. The Bidder/JV partner from whom the bidder intends to procure and supply E&amp;M Equipment including Turbine and Generator should have commissioned E&amp;M Equipment including Generator - Turbine &amp; Pump-Motor for Hydro Electric Project /Lift Irrigation Scheme (LIS) with a minimum single unit capacity at least 200 MW and is in operation as on the date of submission of the bid without any major replacement.</li> <li>D. The Bidder shall tie up with Manufacturers as Joint Venture Companies/MOU Partner having experience in design, procurement, erection and testing and commissioning of 400 KV Gas Insulated Switchgear (GIS) for 400K switchyard works or should have Joint venture agreement/MOU with such 400 KV Switch Gear manufacturers which are having proven experience.</li> <li>E. A member of joint venture that has submitted a bid in response to this tender notice shall not participate in the bid of another joint venture or individually for this project.</li> <li>F. Bidder should have capacity for design office backup and field backup having experience in Hydro Electric Power Project including Electro-Mechanical, E-BoP, 400KV switchyard works/ 400 KV Gas Insulated Switchgear (GIS) and/or should have JV/MOU with such firm having experience.</li> <li>G. The Bidder can bring in any experienced contractor/manufacturers for E-BoP, 400 KV Switch Yard Works/ 400 KV Gas Insulated Switch gear through JV/MOU having the technical capabilities stipulated in the Notice Inviting Tender to meet experience criteria. In such case the financial capabilities of such contractor/manufacturer will not be considered for bid evaluation unless the same ar JV member(s).</li> <li>H. Any contractor/manufacturer who has concluded MOU with one</li> </ul>
<ul> <li>I. Any contractor/manufacturer who has concluded MOO with one Bidder who has submitted a bid in response to this notice shall not conclude MOU with another Bidder for this project.</li> <li>I. Further such JV Partners for all Bought out items, the Bidder should furnish a Back-to-Back Guarantee and 2% CPBG of their</li> </ul>
<b>Limited</b> for satisfactory performance of the Equipment, Spares, and Long-Term Services in addition to the Guarantees furnished by the Bidder.

7 of 11

1800 MW	PUMPED	STORAGE	PROJECT
	(P	SP)	

MECHANICAL PACKAGE/001

	Ј.	Procure and suppli least 10 years in the Plant equipment in Generators, Generators, Generators, Generators Excitation equipment Electrical Governation equipment, E-Bor	manufacturers from whom y the equipment, shall have the field of manufacture of ncluding Vertical Francis Tu rator Transformers, Unit Au ent, Generator Circuit Bre- ning equipment, Cont y, 400 KV switchyard ec iear (GIS) and other acces	e an experience of at Hydro Electric Power rbines and associated ixiliary Transformers, akers, Hydraulic and rol and Protection quipment/400KV Gas
	К.	capacity available within the time p	ld have adequate plant to perform the works prope period specified. The evide f the installed manufactu ents of the Bidder.	erly and expeditiously ence shall consist of
	L.	Machinery, Tools, erection and man	ld have adequate field s Tackles required to provid agement service required t ssion the equipment as	e the necessary field to successfully erect,
	М.	organization desi	have established quality as gned to achieve high la anufacturing and operation	evels of equipment
	Ν.		furnish details of their tech out in Bid document with dence.	
	0.	company (outside Guarantee" to Em	y Indian Company submittir e India) must submit th ployer for satisfactory exec eir Indian Company	e "Parent Company
		Financial Criteria		
	Α.	in Electro-Mechani	ember have average annua cal works not less than <b>Rs.</b> secutive Financial Years e year.	1,000 Crores during
	В.	turnover of in Ele	d Member should have mini actro-Mechanical works not a last three consecutive Fi ous financial year.	: less than <b>Rs. 700</b>
	C.	have minimum an and or in GIS wor	h Member JV (other than L nual financial turnover of ks not less than <b>Rs. 350 C</b> Financial Years ending 31	in Electro-Mechanical rores during the last
Ref.: RJ01 - PSP/SHAH		LECTRO-	TCP: ESM Dackage	Page

ICB: E&M Package

8 of 11

1800 MW PUMPED STORAGE PROJECT	INTERNATIONAL COMPETITIVE
(PSP)	BIDDING (ICB) (VOLUME I)

grænk

		<ul> <li>D. The Bidder/Lead Member should be net profit making at least 3 (Three) financial years in the preceding 5 years.</li> <li>E. The Bidders/JV members who have applied for CDR (Corporate Debt Restructuring) or NCLT during the past five financial years</li> </ul>	
		Debt Restructuring) or NCLT during the past five financial years	
		and as on the date of submission of the Bids are not eligible to participate in this Bid.	
		F. The Bidder should have adequate financial capacity to meet the financial obligations (as mentioned elsewhere) pursuant to the Scope of Works. The Bidder/ Each JV member should submit their audited Financial Statements for the last 5 Years.	
		G. The Bidder should have Liquid Assets and / or line of credit facility in their name for present work of an amount not less than <b>Rs 150</b> <b>Crores</b> and certificate of confirmation to be obtained from Nationalized / Scheduled Banks	
		H. In case of joint venture, the joint venture partners should have a legally valid agreement for " <b>Jointly and Severally responsible</b> " the joint venture group members must be a Hydro Power Project equipment manufacturer.	
		I. The above stated requirements are minimum, and the Employer (Greenko RJ01 IREP Private Limited) reserves the right to reject the proposal of any Bidder if in the opinion of the Employer either the qualification data is incomplete, or the Bidder cannot satisfactorily perform the works.	
		J. The Employer also reserves the right to call for any additional Information and data besides reserving the right to reject the tender or Bid if the qualification of the Bidder is considered inadequate to satisfactorily perform the works in the opinion of the Employer	
		K. Above PQ Criteria is applicable either individual or combined considering the Parent Companies /Group of respective Bidders	
20. Of Bio	ficer Inviting	Vice President -C&P (IREP Projects),	
	ldress	Greenko RJ01 IREP Private Limited 13, Sy.No.64 Part, Block-D, Third Floor, Hitech City Layout, Madhapur Village, <u>Hyderabad-500081</u> , Telangana, India, Ph: 040-40301200	
22. Co	ontact Details	All Queries to be addressed to: <u>manish.a@greenkogroup.com</u> CC: <u>mohiddin.sk@greenkogroup.com</u> <u>madhava.b@greenkogroup.com</u>	
-	ocedure for bid Ibmission	<ol> <li>The Bidder should read and understand clearly the general instructions and terms &amp; conditions of the tender document before submission of the tender.</li> </ol>	
	RJ01 - PSP/SHAH ANICAL PACKAGI		

18	00 MW PUMPED STOI (PSP)	RAGE PROJECT		TIONAL COMPETITIVE G (ICB) (VOLUME I)	grænk
		stamped to Technical 8 mail), duly	o the Autho & PQ docum signed & st	documents shall be su prity as mentioned in the ents shall be submitted amped (on all pages in p as mentioned in the ICB.	he ICB. Further, the in soft copies (throu
		stamped to inviting aut	the Author thority (in s	ed documents shall be s ity as mentioned in the s cealed envelope). The Li in the Annexure.	ICB to reach the tend
				ed in INR/USD/EURO only	
24	Statutory	English lan	guage only.	nit the bid and all rela	
27	Requirements	<ul><li>a) Income ta Permanent assessment</li><li>b) The Bidder</li></ul>	x Clearanc Account Nu t orders.	e Certificate: Bidder s imber (PAN) card, latest nish the valid registratio	hall furnish copies IT returns and latest
25.	Documents to be			ish valid GST Registratio Ild furnish all the hard co	
	submitted (Hard copies) to the Tender inviting authority	submitted by h the stipulated of finalizing the te If the documen be fake / defect	him to be r date as com ender and be hts uploade tive / manip	eceived by the tender in municated by the tender efore issue of LOA/Contra d or submitted in the ha pulated at a later date, th	nviting authority with inviting authority af act. ard copies are found ne bid will be cancelle
26.	Other relevant information	the bid security will be forfeited, and Bidder will be blacklist         1) GREENKO RJ01 IREP PRIVATE LIMITED reserves the right         or all the tenders without assigning any reasons thereof		s the right to reject a	
			<mark>tender</mark> a	RIVATE LIMITED reserves	
				PRIVATE LIMITED re	-
			other hard	ested to submit the original steel to submit the original steel to so of the second steel stee steel steel	
				oad the technical docum ery page of the bid.	ents duly stamped a
27.	Superscription on Tender Cover (Hard Copies to be	The Bidders sl cover:	hall mentio	n the following supersc	riptions on the tend
	f.: RJ01 - PSP/SHAF				Page

	1800 MW PUMPED STORAGE PROJECT (PSP)		INTERNATIONAL COMPETITIVE BIDDING (ICB) (VOLUME I)	grænk
28	furnished on request from the tender inviting authority) 3. Downloading the	<ul> <li>i) Tender Specification No.</li> <li>ii) Name of the Work</li> <li>iii) Due Date</li> <li>iv) EMD/BG PARTICULARS</li> <li>v) Validity of the Tender</li> </ul> The Bidder shall provide their official mail id for obtaining the link for		
	Bid Documents Our Website:	https://greenkogroup.com/tenders.php		

# For Greenko RJ01 IREP Private Limited



MECHANICAL PACKAGE/001 11 of 11	Ref.: RJ01 - PSP/SHAHPUR/ELECTRO- MECHANICAL PACKAGE/001	ICB: E&M Package	Page 11 of 11
---------------------------------	---	------------------	------------------