Central Organization for Railway Electrification 1, Nawab Yusuf Road, Allahabad-211001

<u>Expression of Interest for New Contractors for carrying out Erection and Commissioning of</u> Overhead Equipments, Traction Substations, and Associated Works of Railway Electrification.

Indian Railway Network, one among the vast network in the world, comprises of 65000 Route Kilometers (RKM)/ 89000 Track Kilometers (TKM). At present 45% of the network is electrified with 25kV electric traction. Electrification of large portion of the balance network is under progress. In 12th Plan (2012-2017) GOI had set an ambitious target of electrification of 6500 RKM which is in various stages of execution. Target of electrification of 2000 Km has been set in budget 2016.

Central Organization for Railway Electrification (CORE) an Unit of Indian Railway is entrusted with the task of Electrification over Entire Indian Railway network. For achieving the planned targeted electrification CORE will be finalizing tenders for Electrification of approx 1500-2000RKM of railway network in current year and subsequent years at tender cost of approx. Rs 800-1000Cr annually.

In order to match mammoth target there is need for New Contractors having experience in similar field like laying of HT/EHT lines etc. Expression of interest is invited from contracting agencies who have experience in handling of turn key contracts for supply, erection, testing and commissioning of HT/EHT transmission lines, substations, scada or similar other works in India/abroad. It is proposed to hold a talk/discussion session with interested experienced contractors to discuss on different issues about the working of electrification projects. For this purpose expression of interest is invited.

Interested agencies are requested to submit their details as per EOI form available on CORE website www.core.indianrailways.gov.in. Target date for receiving EOI form is 22.03.2016. The EOI form duly filled shall be sent to "Chief Electrical Engineer, Central Organization for Railway Electrification, 1, Nawab Yusuf Road, Allahabad- 211001" by registered post. On receipt of EOI form, Central Organization for Railway Electrification will hold a talk/discussion session at CORE/ALD with interested firms on 12th April'2016.

A model tender document has been uploaded on core website www.core.indianrailways.gov.in. For further information about the CORE organization, ongoing and planned projects and other details interested agencies are advised to visit CORE website www.core.indianrailways.gov.in. Interested agencies may also contact CEE(P&D) and Dy CEE(OHE) or send their queries on email id ohe.core@gmail.com for further information if any.

Disclaimer: The above invitation is only for guidance of prospective tenderers. This invitation in no way guarantees any work or part thereof being assigned to the firms expressing interest. Interested firms may visit CORE website to get details of tenders floated and participate in tenders directly as per eligibility.

केन्द्रीय रेल विद्युतीकरण संगठन 1, नवाब यूसुफ रोड ,इलाहाबाद-211001

सिरोपरि उपस्करों (ओ एच ई) को खडा करने तथा चालू करने, ट्रैक्शन सब स्टेशनों तथा रेल विद्युतीकरण से सम्बद्ध कार्यों को करने हेत् नये ठेकेदारों के लिए अभिरुचि की अभिव्यक्ति ।

विश्व के नेटवर्क में भारतीय रेल एक विशाल नेटवर्क है जिसमें 65000 रुट किलोमीटर (आर के एम)/ 89000 ट्रैक किलोमीटर (टी के एम) है इस समय 45% नेटवर्क 25 के वी विधुत कर्षण पर विद्युतीकृत है शेष नेटवर्क के बडे भाग का विद्युतीकरकण प्रगति पर है बारहवीं योजना (2012-2017) में भारत सरकार ने 6500 (आर के एम) के विद्युतीकरण का महत्वाकांक्षी लक्ष्य निर्धारित किया था जो कार्य निष्पादन के विभिन्न चरणों में हैं । बजट 2016 में 2000 किलोमीटर के

विद्युतीकरण का लक्ष्य निर्धारित किया गया है ।

केन्द्रीय रेल विद्युतीकरण संगठन (कोर) भारतीय रेल की एक इकाई को पूरे भारतीय रेल नेटवर्क के विद्युतीकरण का कार्य सौपा गया है । योजना में निर्धारित लक्ष्य को प्राप्त करने के लिए कोर वर्तमान वर्ष तथा बाद के वर्षों में रेल नेटवर्क के लगभग 1500-2000 आर के एम के विद्युतीकरण के लिए लगभग रु. 800-1000 करोड़ वार्षिक लागत की दर से निविदाओं को अन्तिम रुप देगा ।

इस वृहत लक्ष्य के अनुरुप ऐसे नये ठेकेदारों की आवश्यकता है जिन्हें इसी प्रकार के कार्यक्षेत्र जैसे एच टी/ई एच टी लाइनों आदि के बिछाने आदि का अनुभव हो । भारत / विदेश में एच टी / ई एच टी के लिए खम्भे खड़े करने (इरेक्शन), ट्रान्सिमशन लाइनों की जॉच (टेस्टिंग)तथा चालू करने और इससे सम्बन्धित सामग्री की आपूर्ति के लिए टर्नकी ठेकों , सब स्टेशनों ,स्काडा अथवा ऐसे ही अन्य कार्यों को हैंन्डिल करने के ठेके लेने का अनुभव रखने वाली एजेन्सियों से अभिरुचि की अभिव्यक्ति आमंत्रित की जाती है ।

इच्छुक एजेन्सियों से अनुरोध है कि वे कोर की वेबसाइट <u>www.core.indianrailways.gov.in</u> पर उपलब्ध ई ओ आई (EOI) के अनुसार अपने विवरण भेजें । ई ओ आई (EOI) फार्म को प्राप्त करने के लिए लक्ष्य तिथि 22.03.2016 है । विधिवत भरे हुए ई ओ आई (EOI) फार्म "मुख्य बिजली इंजीनियर /केन्द्रीय रेल विद्युतीकरण संगठन,1,नवाब यूसुफ रोड ,इलाहाबाद-211001" को रिजस्टर्ड डाक द्वारा भेजे जाएंगे । ई ओ आई (EOI) फार्म प्राप्त हो जाने पर केन्द्रीय रेल विद्युतीकरण संगठन इच्छुक फर्मो के साथ 12 अप्रैल - 2016 को एक वार्ता/परिचर्चा सत्र आयोजित करेगा ।

कोर की वेबसाइट <u>www.core.indianrailways.gov.in</u> पर निविदा का एक नमूना अपलोड किया गया है । इच्छुक एजेन्सियो को सुझाव दिया जाता है कि वे कोर संगठन के बारे में,चालू तथा योजना के अन्तर्गत परियोजनाओं और अन्य विवरणों के लिए कोर की वेबसाइट <u>www.core.indianrailways.gov.in</u> पर जाए । इच्छुक एजेंसियां अन्य सूचनाओं के लिए मुख्य बिजली इंजीनियर (पी तथा डी) और उप मुख्य बिजली इंजीनियर (ओ एच ई) से भी सम्पर्क कर सकते हैं अथवा Email ID <u>ohe.core@gmail.com</u> पर जानकारी प्राप्त कर सकते हैं।

अस्वीकरण:- उपर्युक्त आमंत्रण केवल भावी निविदाकारों के मार्गदर्शन के लिए हैं । यह आमंत्रण अभिरुचि अभिव्यक्त करने वाली फर्मों को कोई कार्य अथवा उसका भाग सौपनें की कोई गारण्टी नहीं देता है । इच्छुक फर्में प्रासारित की गयी निविदाओं की जानकारी के लिए कोर की वेबसाइट पर जा सकती हैं और पात्रता के अनुसार निविदाओं में सीधे भाग ले सकती हैं ।

Brief working of Railway Electrification (RE)

New RE Works are proposed by Zonal railways and are sanctioned by Railway Ministry. After sanction by Railway board the work is assigned to CORE for execution.

Field unit of CORE carries out detailed survey for work assessment site conditions, special conditions prevailing etc. Based on survey the quantities of various items to be executed are listed out in detail and detailed estimate is prepared.

Tender is invited for supply, erection & Commissioning of various items based on detailed estimate. Few items are excluded from contractor supply scope and are directly supplied by CORE.

Tender is invited through open tendering. Tender notice is published in news papers & document is uploaded on CORE website. Participating firms/JVs of the firms can directly download the tender document free of cost. Document can also be purchased from office of CEE/CORE. Firms fulfilling technical/financial eligibility criteria as mentioned in tender document can participate in the tender.

Technically suitable & eligible firm offering lowest reasonable rates is awarded contract.

Further execution of the work is carried out by field unit of CORE. Each filed unit(project unit) is headed by a Chief Project Director(CPD). CPD is assisted by officers and supervisors of different technical wings (Engineering, Electrical, Signal etc.) who monitor and supervise the work in their respective area.

Project unit provides following details to the contractor:-

- (a) Pegging plan- Indicating details of all structures/building etc. with reference to railway track along with proposed location of OHE structures to be erected.
- (b) General supply diagram:- Indicating proposed lay out plan of sub sectioning post(SSP), sectioning post (SP) and traction sub station(TSS)
- (c) Wiring cum sectioning diagram:- Indicating track to be wired with sectioning arrangement for isolation of different feeders/lines etc.
- (d) Location plan for TSS/SP/SSP:- indicating location of TSS/SP/SSP in reference to existing track.

Based on above details the contractor submits designs for approval by RE.

- (a) Layout Plan:- Detailed plan for erection of over head equipment indicating location of each structure, anchoring arrangement, over lap arrangement, Signal locations, implantation details and details of platform structures/buildings etc. along the track, Detailed layout is prepared based on guidelines/drawing of RDSO/CORE.
- (b) Soil test Report: Soil test or Standard penetration test (SPT) is carried out every 5 km of the track to know soil strength and for foundation design.
- (c) Cross section diagram:- This indicates cross section details of each foundation.

On getting approval the contractor starts foundations, erection of masts/portals, fixing of brackets and wiring of overhead conductors using rail mounted crane and wiring train.

The erection work is done during day/night as per site availability. Since the work is to be done near railway track where trains are already running, traffic block (if required) is arranged by Project unit. Traffic block is normally given in small patches of 2-3 Hrs.

On completion of overhead wiring work and availability of power supply the section is offered for commissioning. Divisional organization of railway checks the installation as per approved plan. Defects/deficiencies/deviation(if any) are pointed out for rectification. EIG(Electrical Inspector General) sanction is given by Chief Electrical Engineer of concerned Zonal Railway on satisfactory completion of the work. Supply to OHE is given from Traction Sub Station (TSS) at 25 KV, which is obtained by stepping down 220 KV/132 KV using traction transformers & switch gear.

Before running any Electric Engine for train services, CRS (Commissioner of Railway Safety) sanction is required to be obtained, after which normal rail traffic with Electric traction is allowed.

On completion of charging & CRS sanction the section is handed over to maintenance organization (Open Line) of railway for further maintenance attention. Contractor's bills are passed for on account payment against material supply and erection on completion of the work.

Projects for which Tenders are being Invited in current Year

Proj	Section	RKM	TKM	Nature of Work
BBS	Dungripali-Titlagarh	116	230	Design, Supply, Erection, Testing & Commissioning of 25 kV, 50 Hz, AC, Single Phase Overhead equipment(OHE) along with Traction substation(TSS), sectioning post (SP) /sub-sectioning posts(SSP) etc.
JP	Delhi-Sarai Rohilla-Rewari, Alwar- Bandikui-Jaipur-Phulera, Phulera-Madar	374	887	Engineering, procurement & construction contract for OHE, TSS, SP/SSP, Signaling and associated civil engineering works
UMB	Rohtak-Bhiwani	48	56	Design, Supply, Erection, Testing & Commissioning of 25 kV, 50 Hz, AC, Single Phase Overhead equipment(OHE) along with Traction substation(TSS), sectioning post (SP) /sub-sectioning posts(SSP) etc.
JP	Idgah-Achnera-Mathura & Achnera- Bharatpur	87	112	do
JP	Ajmer-Berach-Mavli-Udaipur	294	378	do
JBP	Singrauli-Katni	260	373	do
LKO	Jhansi-Manikpur incl. Khairar-Bhimsen	409	467	do
DNR	Koderma-Hazaribagh-Barkakana-Ranchi	203	242	do
DNR	Kiul-Tilaya	87	90	do
DNR	Valmiki Nagar-Narkatiaganj-Sungauli- Muzaffarpur incl,Sugauli-Raxaul.	240	286	do
KKK	Bonidanga Link Cabin/Bonidanga- Barharwa-Sahibganj-Kiul incl. Tinpahar- Rajmahal	247	572	do
SC	Paddapalli-Lingampet-Jagtiyal	83	98	do
SC	Pagidipalli-Nallapadu	285	357	do
MS	Erode-Karur-Tiruchchirapalli & Salem- Karur-Dindigul	300	359	do

Note: Cost per TKM of OHE erection/commissioning in above works is Approximately Rs 25 lac.

EOI FORM

Firm's Ref No.:	Date:
To,	
CL: CEL 4: LE :	

Chief Electrical Engineer Central Organization for Railway Electrification, 1, Nawab Yusuf Road, Allahabad – 211001

Sub: Response to EOI

Dear sir,

In response to your EOI we are interested in participating in tenders for Railway Electrification. The details of our firm are as below:

1	Name of firm							
2	Name of Proprietor/MD/CEO							
3	Address of firm							
4	Mobile/Phone No.							
5	E-mail							
6	Turnover and Net worth in last 3 years							
	Financial Year	Tui	nover		Networth			
7	Dataila of work avanuted	haing avacuted in last	a avacuted in last 2 years					
/	Details of work executed/being executed in last 3 years (only works with Ag. Value more than Rs. 1Cr. Be listed)							
	Name of work			For which	Agreement Val.			
				department	<u> </u>			

Any other Info:

We are <u>interested</u> / <u>not interested</u> in participating information sharing seminar/talk.

Note: Interested parties are advised to send queries/questions they would like to discuss in the seminar/talk.(pl attach as separate sheet).

(Stamp & Sign. Of authorized person with name & desgn.)