

कोल इण्डिया लिमिटेड
(भारत सरकार का उपक्रम)
COAL INDIA LIMITED
(A Govt. of India Enterprise)

कोल् भवन "COAL BHAWAN"
PREMISES NO: 04, MAR, PLOT NO: AF-III
ACTION AREA-1A, NEW TOWN, RAJHARHAT
KOLKATA-700156 (WB)



महारत्न कंपनी
A Maharatna Company

ENVIRONMENT DIVISION
पर्यावरण बिभाग

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CIN:L23109WB1973GOIO28844

(An ISO 9001:2015, ISO 50001:2011 & ISO 14001:2015 Certified Company)

Work Order

NO: CIL/ENV/WO/NEERI/2020/10260

Date- 21.01.2020
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To,
Principal Scientist & Head
Kolkata Zonal Center, CSIR-NEERI
i-8, Sector-C, East Kolkata Township
Kolkata-700 107, West Bengal.

बिषय : Assignment of job to CSIR-NEERI, Kolkata for Assessment of Change in Carbon Footprint on Construction and Operationalization of Tori-Shivpur Railway Line in CCL Command Area in Jharkhand.

महोदय,

With reference to the above subject, the Competent Authority of Coal India Limited, Kolkata, is pleased to hereby place the **Work Order** on you for the job of 'Assessment of Change in Carbon Footprint on Construction and Operationalization of Tori-Shivpur Railway Line in CCL Command Area in Jharkhand' for a total estimated value of Rs 10,00,000.00 + GST as applicable (Rupees Ten lakh only).

The terms, conditions and scope of work have been indicated below.

I. Terms and Conditions:

Scope of work

- Brief reconnaissance of study area to understand the process of older and new transfer systems
- Collection of road maps and railway maps of the entire coal distribution network
 - To study the coal transfer pathways *vis a vis* road and railway distances
- Collection of secondary data on number and types of trucks that were plying on roads in the older process
- To study vehicle fleet and rail wagon load per unit time and distance
- Collection of fuel consumption data of the trucks that were used in the older process and also, other associated energy uses, if any
- Collection of fuel consumption data of the rail wagons that were used in the new process and also, other associated energy uses, if any
- Assessment of C footprint of older and new transport systems by applying standard CO₂ and other relevant greenhouse gas emission inventory techniques
- Evaluation of advantages of new transport system *vis a vis* energy consumption and reduction in C-footprint
- Projection on C-footprint in next 5 years
- Presentation of Final Report before competent authority of CIL

II. Deliverables:

- 3 hard copy and 1 soft copy of draft report
- 10 hard copy and 1 soft copy of final report

III. Completion of work: 4 months from zero date (i.e. date of receiving 1st installment)

- a) **Draft Report:** At the end of four months from zero date (1 soft copy, 3 hard copies)
- b) **Final Report:** Within 1 month of the receipt of CIL/CCL comments on Draft Report (1 soft copy, 10 hard copies)

IV. Inputs from CIL/CCL :

- a) The **CIL/CCL** will nominate a coordinator who will coordinate all activities with the consultant during the entire study.
- b) The **CIL/CCL** will also nominate local coordinators who shall coordinate all activities with the consultant at various sites.
- c) The **CIL/CCL** will provide all relevant secondary data and documents to the consultant.
- d) The consultant will collect data or information from various agencies. However, CIL /CCL will help, if needed, to facilitate specific coordination with a few agencies/organizations for data or information collection.
- e) The CIL /CCL will arrange for local travel/ pick-up and drop from and to airport/bus/rail stations near study sites, whenever required.
- f) The sponsor will arrange / facilitate for lodging and boarding of consultant team at or near the site during field studies/ meetings/ reconnaissance visits

V. Payment Schedule:

- a) **First Installment:** 50% of the project cost + GST as applicable on acceptance of W.O and submission of Bill/Tax Invoice.
- b) **Second Installment:** 40% of the project cost + GST as applicable, after submission of satisfactory deliberation of Draft Report and on submission of Bill/Tax Invoice.
- c) **Final Installment:** 10% of the project cost + GST as applicable , after submission of Bill/Tax Invoice & acceptance of the Final Report .

VI. Paying Authority: Payment will be released as per the terms and condition stipulated in this letter and duly certified by GM (Mining)/Environment and payment will be released from the following authority:

General Manager (Finance)
Coal India Ltd.HQ

VII. Receiving Authority: Payment to be made through electronic transfer to NEERI account at SBI Nagpur with swift code No SBININBB534, A/c No 30266513766 branch NEERI (The Institute is exempted from Income Tax).

Please send your acceptance within seven days from the date of receipt of the work order and Bill/Tax Invoice for advance payment.

भवदीय,
[Signature]
21/1/2020
महाप्रबंधक (पर्यावरण)

Director Technical, CIL..... for kind information.

प्रति: सादर सूचनार्थः

1. GM/TS to Chairman, CIL
2. GM (F)/IC, CIL
3. TS to Director (T), CIL
4. GM vigilance
5. HoD, Env. CCL
6. Guard file