



एनटीपीसी-सेल पावर कंपनी लिमिटेड

(एनटीपीसी और सेल का संयुक्त उपक्रम)

NTPC-SAIL Power Company Limited

(A joint venture of NTPC & SAIL)

केन्द्रीय कार्यालय

Corporate Centre

NSPCL Corporate

4th Floor, NBCC Tower New Delhi 110066(India)

Fax No.: 011-26717365 Tel No.: 011-26717377

CIN - U74899DL1999PLC098274

SERVICE PURCHASE ORDER

PAN Number: AABCN5467A

GSTIN: 07AABCN5467A1ZP

PO No: 4500006226/1110 Date:28.02.2024

To,
M/s EdCIL (INDIA) LIMITED
Sector-16A, 18A EDCIL HOUSE, FILM CITY
NOIDA
Noida
Uttar Pradesh-201301, India
Tel No.: 0120-4310840

Vendor Code: 1200003093

GSTIN: 09AAACE0575F1ZU

PAN No. AAACE0575F

Subject : Set-up of STEM Lab under NSPCL CSR initiatives.
Our Enquiry No. : **Date** :
Your Reference : 1) Your Mail dated 02.02.2024 giving consent for the Scope of Work
Our Reference : 1)E-File No.CMCC240014

Dear Sir,

This has reference to our above mentioned enquiry, your offer and subsequent correspondences/discussions. We are pleased to accept your offer and confirm the award of the work for **Set-up of STEM Lab under NSPCL CSR initiatives**. for a total value of **INR 804,487.00 (EIGHT LAKH FOUR THOUSAND FOUR HUNDRED EIGHTY SEVEN Rupees)** mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from **12.02.2024** to **11.04.2025**. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. **GM(HR) or any other Official authorised by GM(HR)** shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorized signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,
For & on behalf of NSPCL.

V.S.Subramanian
Sr.Manager(C&M)

Enclosures

COPY TO: VENDOR/ DUPLICATE/ OFFICE/FINANCE/INDENTOR/ OTHERS

Payment Instruction:

All the required documents along with the Invoices have to be Digitally Signed and uploaded to the following (contract e-Payment Portal) CePP portal for payment processing

पंजीकृत केन्द्रीय कार्यालय : चतुर्थ तल, एनबीसीसी टावर, 15, भीकाजी कामा प्लेस, नई दिल्ली . 110066

दूरभाष / Tel: 011-26717378-79-80-82, 26172273/ Fax: 011-, 26717364, 26717365, 26717366, 26717381

Registered Corporate Office: 4th Floor, NBCC Tower, 15 Bhikaji Cama Place, New Delhi-110066

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PO No: 4500006226/1110 **Date:** 28.02.2024

URL: <https://sapportal.nspclsrijan.co.in:50200/irj/portal>

BILL OF QUANTITY

Name of Work : Set-up of STEM Lab under NSPCL CSR initiatives.

Delivery Address:
NSPCL Corporate
4th Floor, NBCC Tower
New Delhi-110066,INDIA
Tel No: 011-26717377
store.cc@nspcl.co.in

Purchase Order Currency: INR

S.No	Service Code	Description	Qty.	UM	Net Price	Total	
10		STEM LAB SET UP	1	AU	804,487.00	804,487.00	
Tax: IN: State GST - ND @ 9% + IN: Central GST - ND @ 9%							
S.No	Activity	SAC	Description	Qty.	UM	Unit Rate	Net Price
10.10	HRCSR00GN630	90230010	CORPORATE SOCIAL RES (\diamond) Matl Supply	1	MON	654,687.00	654,687.00
10.20	HRTNG05HS080	90230010	TRAINING PROGRAMME (EXTERNAL) .	2.000	NO	19,250.00	38,500.00
10.30	HRCSR00HS031	90230010	CORPORATE SOCIAL RES(\diamond)OTHER ACTIVITIES	1.000	NO	72,800.00	72,800.00
10.40	HRCSR00HS031	90230010	CORPORATE SOCIAL RES(\diamond)OTHER ACTIVITIES	2.000	NO	19,250.00	38,500.00
Item Total						804,487.00	
Net Price						804,487.00	

Total Amount	INR	804,487.00
Discount Value(Lumpsum)		0.00
Net Amount	INR	804,487.00

Amount in Word : INR EIGHT LAKH FOUR THOUSAND FOUR HUNDRED EIGHTY SEVEN Only

Units Legend :
AU : Activity unit
MON : Months
NO : Numbers

V.S.Subramanian
Sr.Manager(C&M)

SERVICE DESCRIPTION

Name of Work : Set-up of STEM Lab under NSPCL CSR initiatives.

Sr.No	Services Code	Services Text
10.10	HRCSR00GN630	CORPORATE SOCIAL RES (<>) Matl Supply

As per SOW

Setup of 80 Nos. plug & play physical models along with user’s manual, colorful backgrounds, Safety Placard, Teachers' Manual;
One-year Comprehensive Warrantee is included in cost

10.20	HRTNG05HS080	TRAINING PROGRAMME (EXTERNAL) .
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As per SOW

Teachers Training Program - 02 times in a year
(4 - 5 hour duration for each session);

10.30	HRCSR00HS031	CORPORATE SOCIAL RES(<>)OTHER ACTIVITIES
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As per SOW

infrastructural Setup (with 2 ft width MDF Board) along with the Electrical connection with in the lab & Installation of the models;

10.40	HRCSR00HS031	CORPORATE SOCIAL RES(<>)OTHER ACTIVITIES
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As per SOW

Baseline & Endline survey per school including all tour &travel, boarding, lodging etc. for complete project;

SCOPE OF WORK AND SPECIAL TERMS & CONDITIONS

Name of Work : Set-up of STEM Lab under NSPCL CSR initiatives.

SCOPE OF WORK

Scope of Work

1.0 Scope of Work

Setting up of Science, Technology, Engineering and Mathematics (STEM) Labs with teachers training programmes in School identified by NSPCL i.e. Government Girls Senior. Secondary School, Tajpur, Badarpur, New Delhi.

2.0 General terms

2.1 The lab will be for understanding of basic principles / concepts of STEM. The lab shall have Plug & Play based table top working physical models (80 no's) are being proposed to make students well understand the basic concepts of Science, Technology, Engineering and Mathematics (STEM). Along with these 80 no's models, user placard, colourful backgrounds, safety placard and teacher manual will be provided.

2.2 The agency shall undertake visits to school for carrying out baseline survey needed for implementation and monitoring of program.

2.3 The scope also includes to provide the training to teachers for understanding the functional requirement of the models. The training may be provided to teacher twice during the project period preferably after set-up of the STEM Lab and second training after 06 months of first training provide, so that the model operational functionality concepts get cleared to the teacher(s) / school management. The agency shall also ensure for the maximum participation of the teachers of concerned department who shall be handling the STEM lab.

2.4 The agency shall deliver & provide Infrastructure required set-up of platforms and electric connections useful for the lab.

2.5 The agency shall conduct baseline and End line survey where the cost of travel, boarding, lodging etc. shall be borne by agency only.

2.6 The agency need to submit baseline report at the start and end-line report after completion of the project. The agency shall also list the project progress, challenges and way ahead that is to be required at school premises.

2.7 The agency need to provide comprehensive 1-year warranty after installation of Lab, where works towards maintenance / repair, electrical connections etc. shall be covered under the project awarded.

3.0 STEM LAB Physical Modules

The agency is required to provide the following physical models for setup of STEM Lab:-

- | | |
|------------------------------|--|
| Sl Model's Name | Sl Model's Name |
| 01 CONSTELLATION VIEWER | 31 Two Congruent Right Triangles |
| 02 NEWTON DISC | 32 AREA OF A CIRCLE |
| 03 COLOUR SHADOW | 33 $(a + b)^2 = a^2 + b^2 + 2ab$ |
| 04 PERISCOPE | 34 $(a+b+c)^2 = a^2+b^2+c^2+2ab+2bc+2ac$ |
| 05 KALEIDOSCOPE | 35 $a^2 \# b^2 = (a + b) (a - b)$ |
| 06 LAWS OF REFLECTION | 36 Sum of the Angles of a Triangle |
| 07 CORNER MIRROR | 37 TANGRAM |
| 08 INFINITY WELL | 38 PARKING PUZZLE |
| 09 MAGIC WELL TAP | 39 ORGAN PIPES |
| 10 TOTAL INTERNAL REFLECTION | 40 AREA OF RHOMBUS |
| 11 FUN WITH MAGNETS | 41 TRANSVERSE WAVE PENDULUM |
| 12 LAW OF INERTIA | 42 AREA OF A TRIANGLE |

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13 CIRCLE AND BALL 43 AREA OF A PARRELLELOGRAM
 14 ACTION AND REACTION 44 COUPLED PENDULUM
 15 PARROT IN THE CAGE 45 SOLAR LIGHT
 16 ZOETROPE 46 WIND MILL
 17 PN SCREEN 47 Shape Of Earth Due To Rotation
 18 FLOATING BALL 48 KE PE TRACK
 19 FLOATING FAN 49 LOOP THE LOOP
 20 TORNADO 50 ROPE PUZZLE
 21 HAND PUMP 51 REFRACTION CYLINDER
 22 ANAMORPH 52 NEWTON'S CRADLE
 23 FLOATING MAGNETS 53 REFLECTION TRANSMISSION
 24 Magnetic Field Tube & Immiscible Fluid 54 HAND BATTERY
 25 MOMENT OF INERTIA 55 DAY AND NIGHT
 26 LAZY TUBE 56 CONE RUN UPHILL
 27 HYPERBOLA 57 TOWER OF PISA
 28 Magnetic Effect Of Electric Current 58 LEVER
 29 Pythagoras Model & Moiré Pattern 59 PULLEY BLOCKS
 30 ELLIPTICAL CARROM BOARD 60 WHEEL AND AXLE
 61 HEAT ABSORPTION 71 CENTRIFUGE PUZZLE
 62 CONDUCTORS AND INSULATORS 72 AREA OF TRAPEZIUM
 63 VISCOSITY TUBE 73 Sum Of Angles Of Quadrilateral
 64 ROCK AND MINERALS 74 $(A+B)^2 - (A-B)^2 = 4AB$
 65 DNA 75 ELECTRIC BELL
 66 LATERAL SHIFT 76 HUMAN TORSO
 67 FORCES AND TYPES OF FRICTION 77 EAR AND EYE
 68 FUNNY MIRRORS 78 HUMAN JOINTS
 69 MARBLE SLIDE 79 PLANT CELL
 70 RESONANCE 80 ANIMAL CELL

4.0 PROJECT COST

The cost to be incurred towards setting up of one number STEM Lab shall be including supply of Lab Equipment, Platforms, Teacher Training, Travel expense along with the supply, installation and Commissioning per lab exclusive of taxes is given below: -

- 4.1 Setup cost for supply and installation of 80 no's Plug & Play physical model along with the user's manual, colourful backgrounds, Safety Placard, Teachers' manual; One-Year Comprehensive Warranty is included in this cost.
- 4.2 Cost towards Teachers' Training Program # session of 4-5-hour duration, 02 times in a year.
- 4.3 Cost towards infrastructural Setup - All arrangements towards providing proper Infrastructural setup (MDF Board of 2Ft Width) along with all Electrical Connection within the Lab and installation of the models.
- 4.4 Base-line survey and End-line survey cost which is essential to acknowledge the Functional / Operational requirements and After Installation Impact.
- 4.5 The above model is designed for better understanding and learning of Concepts for students studying in Class V to Class X.
- 4.6 "On award of contract, the agency will carry out a preliminary survey of the school to identify suitability of setting up of the STEM Lab in terms of infrastructural requirement. The time period of the contract is valid for 14 Months from issuance of Purchase Order / LOI / LOA from NSPCL Contract Department. The agency is required to complete the baseline survey, supply, installation and commissioning of 80 no's Physical Models along with First Teacher Training Program within 3 months from the issuance of order from NSPCL. The second Teacher Training Program is to be carried out after 06 months of commissioning of the Project, both TTP are subject to availability / consent of school. The agency shall also undergo End-Line survey for determine the after impact of the project. The agency shall also provide necessary assistance towards repair / maintenance of civil / electrical works whenever required, so as to ensure the Comprehensive Warranty of 1 year after the commissioning of STEM lab comprising of 80 models in the School."

V.S.Subramanian
 Sr.Manager(C&M)

TERMS & CONDITIONS

Terms and Conditions

5.0 PAYMENT TERMS

- 5.1 85% of Line Item 10.10 & 10.30 on supply, installation and commissioning of 80 no's Model.
- 5.2 100% of Line Item 10.40 - Payment towards carrying out Base-line survey shall be payable after receipt of the reports at NSPCL Corporate Centre.
- 5.3 Balance payment shall be released after completion of the project.
- 5.4 Security deposit @10% of the PO value shall be deducted with a ceiling of Rs. 80,450.00.

Invoices should be submitted in accordance with the line items mentioned in the PO and are required to be submitted at NSPCL Corporate Centre in original. The agency is required to submit the photographs taken during survey, Teacher Training, Feedback etc. along with Utilization and Completion Certificates

6.0 GUIDELINES FOR THE SURVEY

6.1 BASELINE SURVEY

- (i) Title / Cover page
- (ii) Table of Contents
- (iii) Executive Summary
- (iv) Lis of Acronyms and Abbreviations
- (v) List of Tables and Figures
- (vi) Lis of Photos
- (vii) Introduction
- (viii) Survey Methodology
- (ix) Findings
- (x) Conclusion
- (xi) Annexures (list of documents reviewed, survey tools, questionnaires etc.)

6.2 END-LINE SURVEY

- (i) Background
- (ii) Purpose
- (iii) Research Objectives
- (iv) Method of Survey # Study Location, Selection Criteria, Sampling Procedure, Sample size, survey tools, Instruments, survey team etc.
- (v) Data Collection # Data Entry, analysis, timeline, ethical considerations, consent.
- (vi) Findings and Recommendations
- (vii) References.

7.0 LIQUIDATED DAMAGES

LD charges @0.50% per week or part thereof for the portion of works executed beyond the agreed completion date subject to a maximum of 5% of the PO value shall be applicable.

8.0 SPECIAL INSTRUCTION

- 8.1 Price Basis : The prices would remain firm and fixed throughout the contract.
- 8.2 Defect Liability Period : NIL as the project will be covered under Comprehensive Warranty.

V.S.Subramanian
Sr.Manager(C&M)