Request for Proposal (RfP)
for
Technical Support to a Government Establishment for the Implementation of Energy Conservation Measures

1. KEY DATES AND DETAILS

Event	Dates
Closing Time for Submission of Proposals	**19/10/2026 up to 17:30 hrs. IST**.
Pre-bid Queries from Bidders	**09/10/2026 up to 17:30 Hrs. IST.** Please send your queries to the following email ID only: ***procurement_gef6@iiec.org*** Pre-bid queries received after this deadline shall not be considered.
Method to Submit Proposal	Proposals must be submitted to: Procurement Team International Institute for Energy Conservation (IIEC) 944 Mitrtown Office Tower, 27 Floor, Suite no. S27089, Samyan Mitrtown, Rama IV Road, Wangmai, Pathumwan, Bangkok 10330, Thailand. ***E-mail:*** **procurement_gef6@iiec.org** The Bidder shall submit only an electronic version (in PDF format) of the proposal strictly in separate attachments as mentioned below: **Subject Line**: Proposal For **"Technical Support to a Government Establishment for the Implementation of Energy Conservation Measures"** **File 1**: Technical Proposal (not more than 25 pages) including expertise of firm/organization, approach, methodology, implementation/work plan and team members' CVs. The CV of each team member should not exceed 3 pages. However, CVs do not count as part of the 25-page limit. **File 2**: Financial Proposal (not more than 2 pages) **File 3**: Copy of Work Orders showcasing relevant experience. (not more than 15 pages) **File 4**: Certificate of Registration (legal status), audited financial statements for the last 3 years (not more than 15 pages)

	(The proposal document should be single-spaced, 12-point Times New Roman font in Microsoft Word, at least one-inch margins) Proposals with conditional offers or variables, submitted in any manner other than as detailed in this section or submitted after the deadline, shall be deemed invalid and may be excluded from consideration.

2. BACKGROUND

Under the Global Environment Facility (GEF)-6 cycle, the United Nations Environment Programme (UNEP) is the lead implementing agency for managing the project 'Creating and Sustaining Markets for Energy Efficiency'. In India, the project is currently executed by Energy Efficiency Services Limited (EESL), as the 'Executing agency' and the International Institute for Energy Conservation (IIEC) as the 'Co-Executing agency' for this project.

As part of its effort to diversify, EESL is assessing opportunities to support the implementation of energy conservation measures in buildings in the national capital region, aiming to showcase pathways toward net-zero energy performance.

One such opportunity is a large government establishment where EESL & IIEC earlier, under this project, have supported the establishment administration in identifying relevant Energy Conservation Measures with an objective of transitioning towards a net-zero campus. The administration has now decided to implement these measures, for which EESL is developing a detailed implementation strategy for on-ground execution of the proposed net-zero transition.

With this background, IIEC seeks to engage an agency to provide technical support for developing an execution strategy for implementation of identified energy conservation measures and conduct a detailed feasibility study of a District Cooling System for the entire campus.

The campus is a large government establishment in New Delhi with a main building and multiple smaller buildings serving different end-uses spread across the campus. The total cooling demand of all the buildings is approximately 3000 TR, currently served by distributed cooling systems including Chillers, VRV, and DX units. The campus' contract demand is approximately 4000 KVA

3. ABOUT INTERNATIONAL INSTITUTE FOR ENERGY CONSERVATION (IIEC)

The International Institute for Energy Conservation (IIEC) was established in the USA in 1984 as a non-governmental, not-for-profit organization and has regional offices in India, the Philippines, and Thailand. IIEC's mission is to accelerate the global adoption of energy efficiency and renewable energy policies, technologies, and practices to enable economic and environmentally sustainable development. IIEC pursues this mission in developing countries and countries in transition through fieldwork undertaken by its regional offices. For the last four decades, IIEC has been providing solutions to the problems posed by the rapidly increasing energy demand in developing and industrializing countries. IIEC works with governments and the private sector to develop, implement, and evaluate energy efficiency and renewable energy policies, programs, and projects.

4. STUDY OBJECTIVE

The key objectives of this assessment are:

- To evaluate the possibility of setting up a District Cooling System (DCS) for meeting the space cooling and heating demand in the campus
- To provide technical assistance for the implementation of identified energy conservation measures with detailed execution planning.

5. SCOPE OF WORK

The scope of work is structured into the following key work packages that the agency shall undertake to meet the study objectives. The assignment shall focus on developing a detailed design brief, execution plan, and associated detailed coordinated engineering drawing sets for the proposed DCS arrangement as well as the identified energy efficiency measures.

The scope of work of the assignment is broadly categorized as follows:

Work Package 1: Detailed assessment for DCS

The government establishment where the project will be executed encompasses diverse end-use buildings; the agency shall assess the cooling load patterns of each building and propose a district cooling system for the entire campus.

The key tasks for DCS feasibility may include

Baseline development

i. Prepare a schematic layout of the campus, including the existing building blocks, utility networks, and cooling systems.
ii. Estimate the current and projected cooling demand of each building on the campus, considering usage and occupancy patterns. Develop an annual cooling load profile of the campus. In addition, a detailed cooling assessment for each space/zone in the main building shall also be undertaken.
iii. Compile an inventory of existing cooling equipment in the main building, including type & capacity. Make a broad assessment of their refrigerant, age, operating condition, and efficiency.
iv. Estimate current annual energy consumption, peak demand, refrigerant top-up requirements, and water consumption associated with cooling loads.

Design of District Cooling Systems

i. Assess the compatibility of existing building systems with the DCS arrangement.
ii. Evaluate suitable DCS technology options, including commercially available low-energy solutions, natural refrigerant-based systems, non-refrigerant-based systems, and thermal energy storage systems.
iii. Determine the space requirement for the central cooling plant and associated support infrastructure.
iv. Review the existing site layout and identify the modifications required for installation of the proposed system (Including the option of erecting a new plant room combining all existing chiller plants).
v. Identify the most feasible route for the chilled water distribution network, preferably through underground utility corridors or other site-appropriate concealed routes.
vi. Indicate the principal supply and return routes, branches, and tie-in points for the proposed

distribution arrangement. Identify routing conflicts or missing existing-system information.

vii. Prepare the Design Basis Report (DBR) and a schematic layout of the proposed district cooling system, including plant room, piping network, pumping arrangement, and integration points with buildings. Include an estimate of any requirements to update the civil, electrical, and mechanical infrastructure.
viii. Develop detailed technical specifications, including energy efficiency parameters, bill of materials (BoM), and bill of quantities (BoQ) of the proposed system.
ix. Estimate the upfront capital expenditure (CAPEX), equipment replacement costs over the system's lifetime, and recurring operational expenditures (OPEX) for the proposed system, including the distribution network.
x. Develop the detailed design drawing set for the finalised DCS arrangement and associated electrical and building automation system infrastructure.

Cost-benefit analysis and financial viability of DCS

i. Estimate CAPEX for the proposed DCS. The estimate shall include the cost of equipment, expected electrical systems, controls, distribution network, and contingencies.
ii. Estimate operating expenditure, replacement costs, and lifecycle maintenance requirements over the system life.
iii. Compare the proposed DCS with the existing cooling arrangement in terms of energy consumption, water use, refrigerant use, installed capacity, power demand, and operating cost.
iv. Estimate greenhouse gas emission reductions due to lower electricity consumption and reduced refrigerant leakage.
v. Assess co-benefits such as improved thermal comfort, better system reliability, reduced maintenance burden, and reduced UHI impact.
vi. Prepare detailed calculation sheets for baseline, adjusted baseline, annual savings, and lifecycle performance.
vii. Conduct a lifecycle cost analysis, including levelized lifetime cost of cooling (LLCC), expressed in INR/TR-h.
viii. Prepare a financial model assessing project viability, including assumptions on capital structure, financing pattern, cash flow, NPV, IRR, RoI, payback period, and sensitivity analysis.

Develop the execution plan/strategy for the proposed District Cooling System

i. Develop the work plan for proposed cooling demand reduction interventions.
ii. Develop a framework for bidding process management for the identification and selection of a DCS developer.
iii. Identify project risks, including technical, environmental, financial, operational, and regulatory risks, and propose mitigation measures.
iv. Identify applicable statutory approvals, permits, codes, and regulatory authorities.
v. Establish baseline metrics and a monitoring, reporting, and verification (MRV) methodology based on international best practices for DCS.
vi. Prepare detailed engineering drawings GFC set including layouts for high-side and low-side equipment, piping routes, and utility integration.

Work Package 2: Develop a detailed execution strategy for implementing identified Energy Efficiency Measures.

The agency shall prepare a detailed execution strategy for the approved energy efficiency measures identified in the existing DPRs, based on site verification and current ground realities.

The execution strategy shall include at minimum the following:

i. Site verification of the identified measures and validation of existing utility conditions.
ii. Phase-wise implementation plan for each identified measure, with sequencing to minimize disturbance to building operations.
iii. Consultation with Technology Solution providers (TSP) and coordination of Site inspection by TSP to address any concerns for the implementation.
iv. For cooling-related interventions: Identify the required interfaces with existing services. Prepare chilled water piping routes and connection arrangements for the indoor units for the areas being switched over to chilled water, using the specified capacities/ loads in the technical documents, etc.
v. For electrical systems-related interventions: Identify the required interfaces with existing services, prepare HT/LT cable routing, Electrical layout for DG and Transformer, Cable tray layouts, LT panel layout, integration of APFC, STATCOM, AMF panel, and chiller VFD panel, etc.
vi. Report any deviations from the original DPR during implementation while undertaking detailed design.
vii. Optimization of execution timelines while ensuring compliance with site operational requirements and statutory approvals.
viii. Preparation of a Design Brief Report and detailed engineering drawings, including 2D CAD drawings aligned with architectural and MEP layouts of the campus.
ix. Finalization of design documents, including DBR and drawings, shall be done in consultation with IIEC, EESL & CPWD.
x. Quality assurance and quality control plan for major components, equipment, and installation works.
xi. Integration plan for existing and new services associated with energy efficiency interventions.
xii. Detailed engineering drawings for retrofit and new energy-efficient equipment, including interconnections with existing systems and utility routing.
xiii. Phased commissioning plan for switchover from old systems to new systems without disruption to routine activities.
xiv. Review and update the energy consumption and GHG emission Baseline data for the energy conservation measures and assess the savings proposed in the DPRs. Report any deviations in baseline and expected savings with justification.

Note: The DPRs of identified energy efficiency measures will be provided to the successful agency at the time of commencement of the work.

The identified energy efficiency measures include:

i. Retrofitting of old chillers with new energy-efficient chillers (and shifting all chillers to a new service block) with the addition of a Chiller Plant Optimizer (CPO) / Chiller Plant Manager (CPM).
ii. Provisioning for connecting the areas of the main building to the chilled-water network, where cooling is served through VRF or other distributed cooling equipment. (retrofit and integration of existing low-side equipment)
iii. Implementation of a Building Automation System with integration of BMS, CPM/CPO, Fire safety system, and access control systems.
iv. Integration of Heat pumps in the existing hot water system.
v. Energy Efficiency improvement in the Electricity Distribution, covering APFC and STATCOM. With suggestions for the relocation of electrical utilities in a new service block, which include
vi. The relocation and upgrading of the old HVAC Plant and Electrical substation, DG sets to a dedicated service block with removal of outdated or dysfunctional equipment and addition of new energy-efficient equipment.

The agency shall carry out all necessary site surveys, utility verification, measurements, design basis development, technical analysis, financial modelling, engineering drawings, and implementation planning required to prepare a DPR (for DCS) and detailed execution plan for both DCS and previously identified

ECMs. The agency shall also provide all supporting calculations, assumptions, editable working files, and draft detailed technical specifications required for procurement and execution. All the drawings shall be provided in 2D CAD DWG format, PDF format, and 3 copies in print at a suitable scale. The agency is expected to provide the final fully coordinated GFC drawing set suitable for execution. The consultant shall also carry out periodic site visits during execution, which will be undertaken by the third party directly appointed by CPWD.

6. DELIVERABLES

i. DPR for the proposed District Cooling System, including:
   - Technical assessment and baseline report;
   - Cooling demand assessment and demand reduction analysis;
   - System design basis and concept design;
   - Technical specifications, BoM, and BoQ;
   - Financial and economic analysis;
   - Implementation strategy and risk assessment;

ii. Detailed execution plan for the proposed DCS, including:
   - Implementation schedule;
   - Procurement and bidding strategy;
   - Phase wise commissioning plan;
   - Detailed engineering drawings. (2D CAD DWG, PDF formats, and 3 hard copies of each printed at appropriate scale)
   - QA/QC plan

iii. Detailed execution strategy for approved energy efficiency measures, including:
   - Site-verified implementation plan;
   - Detailed drawings and MEP layouts (2D CAD DWG, PDF formats, and 3 hard copies of each printed at appropriate scale);
   - Utility integration and switchover plan;
   - QA/QC plan;
   - Phased execution schedule.

7. PAYMENT SCHEDULE AND TIMELINES

The shortlisted Organization/Agency is expected to complete the deliverables as per the timelines mentioned below:

Milestones	Timeline (Weeks)	Percentage of Total Contract Value (%)
Inception Report with Detailed Work Plan	Within 1 week from the inception meeting	20% of the contract value
On submission and approval of Deliverable (i) mentioned above in clause no. 6]	Within 5 Weeks from the date of the award of the contract.	25% of the contract value
On submission and approval of Deliverable (ii) mentioned above in clause no. 6]	Within 8 weeks from the date of the award of the contract	25% of the contract value

On submission and approval of Deliverable (iii) mentioned above in clause no. 6]	Within 12 weeks from the date of the award of the contract	30% of the contract value

Note: If the selected agency cannot complete the deliverables/milestones within given timelines, then the timelines may either be extended (without additional cost) or contract may be short closed. In case of short closing of the contract, only the payment of the completed deliverables/milestones shall be paid to the Consultant.

8. SUBMITTAL & REPORTING

Interested organizations/agencies must provide information indicating that it is qualified to perform the services, along with budgetary quotes, by submitting separate proposals as described above via email to **procurement_gef6@iiec.org** with the subject as Proposal **for "*Technical Support to a Government Establishment for the Implementation of Energy Conservation Measures*"** in the subject line by **19 October 2026 up to 17:30 hrs. IST**.

Proposals should include the following information.

- Brief background about your organisation.
- Organizational & team's relevant experience.
- A narrative outlining the vision for the work along with the suggested methodology, work plan, and/or other technical inputs for the assignment.
- Team composition and individual qualifications & experience.
- References of similar projects/studies with contact details (email and telephone).
- Budget information. The Organization/Agency should submit a detailed cost proposal **in USD only**.

9. QUALIFYING REQUIREMENTS

- The bidder should have a legal status in India enabling the firm to carry out the assignment and an office in Delhi-NCR where the project team will be stationed during the assignment period.
- The bidder should have an average annual turnover for the last three financial years of USD 1,500,000
- The bidder should have at least ten (10) years of experience in undertaking consulting assignments related to building energy efficiency project implementation / MEP design / design of district cooling systems / assignments related to development of detailed engineering drawings for energy efficiency projects in buildings.
- The bidder should have completed at least two assignments on DPR preparation or design of District Cooling systems in the last 3 years in India.
- The bidder shall have experience in the preparation of detailed engineering drawings, GFC drawings, and MEP design basis reports for buildings for at least 3 projects in the last three (3) years.

Note: Bidders shall submit the relevant supporting documents showcasing their qualifications and experience relevant to the qualifying criteria mentioned above. However, IIEC reserves the right to seek any additional documents during the evaluation process as deemed necessary.

10. EVALUATION CRITERIA

The evaluation of bids shall be done on Quality and Cost Based Selection (QCBS) with **80%** (Eighty percent) weightage to technical score and **20%** (Twenty percent) weightage to financial bid. The following are the

qualification criteria for the selection of organization/agency.

- Pre-screening: All applications meeting the minimum eligibility criteria and conformance to the application content requirements will be evaluated by the Evaluation Committee (EC).

- Final Evaluation: The proposals will be evaluated based on the marks obtained as per the criteria provided below against each category by the EC.

Parameters	Marks	Maximum Marks
Quality of Technical Proposal Sub-Criteria: a. Adequacy of the proposed methodology in responding to the Terms of Reference. b. Technical approach and work plan. c. Specific experience of the proposed team members.	20 20 20	60
Specific experience of the Organization/Agency relevant to the assignment	20	20
Bid cost competitiveness	20	20
TOTAL		**100**

11. TEAM COMPOSITION AND EDUCATIONAL & PROFESSIONAL QUALIFICATIONS

The agency shall deploy a multidisciplinary team with the following minimum composition and qualifications. All key personnel shall have proven experience in similar assignments in the government / institutional sector and shall be available for site visits, stakeholder meetings, and review presentations as required.

Sr. No.	Role	Minimum Number of professionals	Minimum Education Qualification	Minimum Experience Criteria
1	Team Lead	1	Bachelor's degree in engineering/ technology (B.E./B. Tech.) or equivalent	Should have at least 25 years of experience, with at least 20 years of similar studies experience, preferably in building energy efficiency and built-environment sustainability. Should know about Energy Efficiency Standards and Codes (e.g., Energy Conservation Building Code (ECBC), National Building Code (NBC), CPWD guidelines, and building bye-laws.

Sr. No.	Role	Minimum Number of professionals	Minimum Education Qualification	Minimum Experience Criteria
2	Building Energy Efficiency Expert	1	Bachelor's degree in engineering/architecture (B.E. / B. Tech.) or equivalent	Should have at least 20 years of experience, with at least 15 years of similar studies experience in building energy efficiency and built-environment sustainability. Should be a BEE Certified Energy Auditor. Should have experience in building energy audits and green building design and certification; Should have accreditation as a professional under any of the following: • IGBC Accredited Professional (IGBC AP) – Indian Green Building Council • LEED Accredited Professional (LEED AP) – U.S. Green Building Council (USGBC) • GRIHA Certified Professional – GRIHA Council
3	HVAC Design Expert	2	Bachelor's degree/Diploma in engineering or equivalent	Should have at least 20 years of experience, with at least 15 years of experience in similar assignments in buildings. Should have specific experience in designing HVAC systems in large buildings and campuses. Should have demonstrated experience in the design, audit, and feasibility of DCS.
4	Electrical System Design Expert	2	Bachelor's degree/Diploma in engineering or equivalent	Should have at least 20 years of experience, with at least 15 years of experience in similar assignments in buildings. Should have specific experience in designing electrical distribution systems in large buildings and campuses. Including HT/LT distribution, substations, DG sets, APFC, STATCOM, and integration with building automation / BMS. Experience with single-line diagrams, load flow studies, and energy efficiency measures in electrical systems. Should have

Sr. No.	Role	Minimum Number of professionals	Minimum Education Qualification	Minimum Experience Criteria
				demonstrated experience in design, supervision, and demonstration of energy efficiency projects related to electrical systems in buildings.
5	Draftsman (MEP/Building Services)	2	Diploma in engineering / ITI or equivalent	Should have at least 10 years of relevant experience in MEP / building services drafting, including: HVAC and chilled water systems, electrical single-line diagrams and layouts, utility routing and service coordination. Should have advanced proficiency in drafting tools such as AutoCAD. Should be able to read and interpret architectural layouts, structural drawings, MEP drawings, equipment data sheets, and vendor drawings.

The agency shall also demonstrate the availability of backstopping support and adequate field staff/resources for supporting the project team in conducting various tasks of the assignment.

12. INSTRUCTIONS FOR BIDDERS

- Bidders are requested to submit the complete proposal as mentioned on Page 1 of this RFP document.
- Files/ Folders greater than 20 MB in size will not be delivered to the above-mentioned email ID, resulting in non-submission of the bids.
- The bidders can submit the proposal and documents in a maximum of two separate emails due to the size limitations of email as mentioned above.
- Submission of bids through any open source or links to shared drives such as Google Drive, OneDrive, WeTransfer, Dropbox, etc. shall not be entertained and will stand disqualified.
- Project references and the associated documentary evidence should be easily identifiable for ease of evaluation.
- Submission of Financials should indicate the component of local taxes, as applicable.

13. TERMS AND CONDITIONS

- JV/consortium or any kind of sub-contracting shall not be allowed for this assignment.
- The maximum cumulative liability of the Agency/ agency entering a contract with the Client shall be limited to the Contract Value.
- IIEC is under no obligation to accept any proposal or part thereof received in response to this study.

- IIEC reserves the right to seek clarification or request any additional documents as deemed necessary. Furthermore, the IIEC reserves the right to modify or cancel the RFP (including extending the deadline for the receipt of proposals) without justification or compensation payable to the bidder.
- It will be at IIEC's discretion whether it may accept a request for an interim payment based on the situation of the ongoing project.
- IIEC will not reimburse bidders' expenses, including those related to responding to this RFP. In case any additional tasks are required, the agency should seek prior approval in writing from IIEC.
- Confidentiality: All data and information received from IIEC and partner organizations, provided to the agency for this assignment, are to be treated confidentially and are only to be used in connection with the execution of these Terms of Reference (a specific separate confidentiality agreement may be agreed between the Consultancy and IIEC, if needed to provide information more freely). All intellectual property rights arising from the execution of these Terms of Reference are assigned to IIEC. The contents of written materials obtained and used in this assignment may not be disclosed to any third parties without the express advance written authorization of IIEC and its partner organizations.