**Call for Proposals for Demonstration Projects Implementing Sustainable Cooling Solutions under “Cool Up Programme”**

**Terms of Reference**

**Sustainable Cooling Demonstration Projects**

**Background:**

Egypt’s energy challenges include fast-growing demand for cooling and increasing final energy consumption with a heavily strained energy infrastructure. Meanwhile, there is a significant potential to boost energy savings in cooling systems. Much of Egypt's cooling technology still operates on inefficient systems that contribute to high energy consumption along with the use of refrigerants with a high global warming potential (GWP). This not only exacerbates climate change but also increases energy costs for businesses and households. In this context, the United Nations Development Programme (UNDP) is collaborating with national and international partners to support the transition to sustainable cooling systems through the Cool Up Programme.

Cool Up Programme aims to promote the adoption of sustainable cooling solutions in Egypt by focusing on the use of natural refrigerants and energy-efficient technologies. It aims to accelerate the transformation of technology and early implementation of the Kigali Amendment to the Montreal Protocol and the Paris Agreement in Egypt. The programme targets to phase out high- GWP refrigerants and advance energy-efficient equipment to mitigate the effects of rising cooling demand for electricity. The programme’s strategy is to promote technology push instruments by showcasing applications in the markets in order to increase demand for sustainable cooling products. The project is implemented in close alignment with the National Ozone Unit (NOU), Egyptian Environmental Affairs Agency Egyptian, and in partnership with Guidehouse International Consulting Firm and the national counterpart IDG Consulting Firm through funding from the Government of Germany.

**Objective:**

The objective of the Sustainable Cooling Demonstration Projects is to encourage the installation of energy-efficient cooling technologies using natural refrigerants. This aims to verify the technical and financial1 feasibility of the newly introduced technologies including highly efficient operation under Egyptian climatic conditions, which will be evidenced by a long-term monitoring. Disseminating the results of the demonstration projects should promote replication at the national

1 Innovative technologies, which are new to the market and not yet scaled up in terms of sales numbers should at least have the potential to get financially feasible in the near future, when their market volume has risen.

level. Replacement of existing equipment with equipment using natural refrigerants is given priority to newly installed cooling systems for monitoring of energy savings purposes.

**Scope:**

UNDP on behalf of Cool Up Programme Partners will provide a financial contribution to a Responsible Party to implement a Sustainable Cooling Demonstration Project . The financial contribution will be released upon achievement of specific results and completion of the demonstration project. The targeted Responsible Party, should be owner of commercial facilities, enthusiastic to introduce new energy-efficient equipment using natural refrigerants. The most prominent natural refrigerants are carbon dioxide (R-744), ammonia (R-717), water (R-718), and natural hydrocarbons (e.g. Propane (R-290) and Isobutane (R-600a)).

Targeted technologies for demonstration projects are:

**Commercial refrigeration systems operated with natural refrigerants:**

• Commercial plug-in units: Stand-alone commercial refrigerators/freezers, used for refrigeration storage of various products covering plug-in refrigerators, and vending machines

• Cold rooms

• Centralized refrigeration systems

**Air Conditioning systems operated with natural refrigerants:**

• Central Chillers: Compression chillers operating with natural refrigerants, absorption chillers, or other not in-kind technologies without fluorinated refrigerants, i.e. as an example Evaporative cooling technology

• Air handling units: compatible with natural refrigerants

• Split units, DX units

**Eligibility Criteria for Applications**

1. Applicants for Cool Up programme funding should apply for using new energy-efficient equipment using natural refrigerants as described above in the scope section.

2. The requested technology energy-efficient equipment using natural refrigerants has to be

commercially available technology in the market where R&D is not in scope for this award.

3. Applicants must be legally registered private sector companies in Egypt open to trying new technologies and keen to implement energy-efficient systems using natural refrigerants.

4. Commercial facilities including hotels, supermarkets, etc. located across Egypt are eligible to apply. Installations in Cairo and Sharm El Sheikh cities will be given a higher consideration, given their relatively higher potential impact and cooperation opportunities with other development programs.

5. The case should demonstrate a technically and financially feasible business case/model for the replacement that can encourage replication.

6. Selected suppliers for the equipment must fit the minimum eligibility criteria in Annex 1.

Priority will be given to installations, with a short realization period.

7. Selected equipment should fit with the infrastructure and services in the host facility.

8. Selected equipment must be compliant with relevant national and international standards, including all related national rules and regulations.

**Responsibilities of the Responsible Party (Funding Recipient)**

1. The Responsible Party assumes full responsibility for the implementation on of the demonstration project and achieving the intended objectives and accept to be paid the financial contribution after an achievement of agreed upon measurable results as verified by Cool Up Independent Assessor.

2. Submit evidence for the legal status of the company by providing tax registry information, tax card number including business type, annual revenue, number of employees, ownership of property, and background on the company.

3. Submit all required documents attached to the application request covering information to confirm compliance of the Responsible Party, Supplier, and the equipment including the area of the building, site suitability, design of the demonstration project, product specifications and testing certificates, safety precautions, capacities of cooling systems, energy consumption data, energy and CO2eq savings calculations, used refrigerants, etc.

4. Provide an overview about the (estimated) total cost (including installation and commissioning) and the requested funding including an economic feasibility calculation which considers the differential cost and savings of the innovative sustainable cooling technology compared to the usual standard alternative.

5. Provide an implementation plan that specifies the expected implementation duration from the date of signing the agreement until the installation.

6. Select a supplier(s) that meet the criteria (attached Annex 1) and equipment that is

compliant with international and national standards.

7. Accept all articles in the attached UNDP Performance -Based Payment Agreement without any changes.

 8. Submit all documents related to the financial transactions to UNDP upon request for financial audit purposes, as requested.

9. Identify the exact location for installation and facilitate inspection missions by UNDP, Cool

Up programme teams.

10. Prepare the technical and financial procurement documents, bearing full responsibility for selecting the suppliers according to the criteria in Annex 1.

11. Contract the supplier in not more than 10 days after receiving notification that the Responsible Party is selected and share copies of the contract with programme/project teams.

12. Commit to pay all dues to the supplier, upon satisfactory completion according to the standards.

13. Commit to complete the implementation within the agreed-upon timeline.

14. Cooperate with the programme team for the monitoring system installation to collect actual data on system performance and efficiency of:

- the actual energy consumption of the existing equipment to be replaced and estimate projected energy savings from the replacement of existing equipment, if applicable

- the newly installed equipment using natural refrigerants energy consumption figures. This is as per the approved monitoring approach in the proposal, for at least one year for the newly installed equipment.

- to compare energy consumption figures of the typical new conventional alternative equipment (using business-as-usual refrigerants) of the same capacity and specifications as the new equipment using natural refrigerants to be installed, only if applicable.

15. Commit to allowing training of engineers and technicians staff of the Responsible Party by the Cool Up programme and supplier of equipment during the implementation of the sustainable cooling systems to be installed.

16. Facilitate regular site visits, inspections, and audits by the Cool Up team to ensure compliance with all conditions in the agreement, monitor efficiency and performance and showcase to others. Non-compliance may result in grant revocation and the request to repay disbursed funds.

17. Allow to share the performance and efficiency data and results from the monitoring system and allow use in brochures to promote the replication of sustainable cooling systems in other facilities.

18. Participate in awareness and capacity-building conferences and seminars, to present the demonstration project results whenever possible.

19. Agree to display a project-provided sign acknowledging participation in the project carrying the logos of the project partners and commitment to sustainable cooling in a prominent location at the installation site.

**Duration:**

The implementation of the demonstration project (installation and commissioning) must be completed within a maximum duration of six months starting from the date of signing the agreement between UNDP on behalf CoolUp Programme and the Responsible Party, while an earlier implementation is encouraged. Within 30 days of receipt of the notification of selection, the successful applicant shall sign and date the agreement and return it to the UNDP. The Responsible Party has to inform UNDP in case that the duration of implementation will exceed six months. UNDP can accept extensions if the reasons are beyond the control of the Responsible Party, but the last UNDP payment should be released by the end of October 2025 which is dependent upon the successful installation, testing and commissioning.

Failure of the selected applicant to comply with the requirement of UNDP stipulated in the agreement forms shall constitute sufficient grounds for the annulment of the offer. In this case, the UNDP may make the award to the next evaluated Applicant.

**Low Value Payment Agreement**



***Note:***

*Double click on the word document icon to open.*

 **How to Apply**

This call is open for applications from 10th April 2025 and will be closed on 10th May 2025. To develop proposals for demonstration projects implementing sustainable cooling solutions for

this funding, you need to fill out and submit an application form available here:

**Application Form Link:**



***Note:***

*Double click on the word document icon to open.*

The application should include all required information, calculations, and evidence documents. All supporting documents should be enclosed with the application form and submitted by email to:

 tarneem.ashoush@undp.org and CC to sara.ewida@undp.org

**Selection Process**

All submitted proposals will be reviewed and evaluated by an evaluation committee composed of

 Cool Up Programme partners. The evaluation process will be guided by the UNDP principles of fairness to ensure integrity and transparency.

Evaluation Criteria

The evaluation criteria for the selection of winners will focus on the commitment of the applicant and methodology for implementation, qualifications of the supplier, and specifications of the proposed equipment and impact of change.

|  |  |
| --- | --- |
| **Part 1: Applicant** | **Maximum Points****Obtainable** |
| 1.1 | Energy efficiency levels within the targeted facilities | 10 |
| 1.2 | Potential size of replication inside the Applicant facilities | 10 |
| 1.3 | Availability of required infrastructure and services in the facilities to implement the demonstration project. | 5 |
| **Total Part 1** | **25** |
| **Part 2: Technology** | **Maximum Points****Obtainable** |
| 2.1 | Technical feasibility in terms of convenience of the technology to serve its functions:- Quality of evidence of potential improvements by the innovative technology compared to a conventional alternative (using business-as-usual refrigerants), including quality,performance, energy efficiency, CO2 saving, safety, etc.- Testing certificates for the existing equipment or quality/performance labels | 20 |
| 2.2 | Business case/model for the replacement that can encourage replication at the national level including financial feasibility interms of energy savings potential in comparison to the existing/old system. | 20 |
| **Total Part 2** | **40** |
| **Part 3: Supplier** | **Maximum Points****Obtainable** |
| 3.1 | Company profile: Supplier's previous relevant experiences in the field of cooling systems in projects of similar value, nature, and complexity in Egypt | 10 |
| 3.2 | Supplier’s after-sales services experience and the available facilities(e.g. maintenance and service center) in Egypt | 15 |
| 3.3 | Supplier’s warranty period for the supplied equipment | 10 |
| **Total Part 3** | **35** |
| **Total score** | **100** |

Applications receiving the highest scores will be selected for funding according to availability of funds.

UNDP reserves the right to organize an interview with recommended applicants as needed

to clarify details of the project idea. UNDP reserves the right to request from the applicant any additional information and documents to support the evaluation process.

**Terms of Payment**

On behalf of Cool Up programme, UNDP will provide a financial contribution equivalent to 60% of the total value of the equipment for implementing a demonstration project for energy -efficient equipment using natural refrigerants for both the refrigeration equipment (plugins, cold rooms, etc) and air conditioning equipment (AC chillers, split units...etc.). This is based on the contract value and official invoice from the supplier to the Responsible Party, with a maximum ceiling equivalent to USD 40,000 per project for small refrigeration and air conditioning equipment. The maximum ceiling of the financial contribution will reach the equivalent to USD 100,000 for chillers and large refrigeration equipment. Payments to selected applicants will be disbursed in two installments based on achieving the following the milestones:

1. The first installment is equivalent to 50% of the total Cool Up contribution and will be disbursed after inspecting the delivered equipment on site and the programme team approving technical specifications as per the supplier’s offer.

2. The second and final installment (50%) will be disbursed upon completion of all the works including testing and successful commissioning as agreed between Cool Up and the applicant in the agreement, submission of the first monthly monitoring report, the funding utilization report (financial report), and the final narrative report (combined technical performance and financial analysis report).

**Ownership of the Equipment**

The sustainable cooling system installed through this project under this agreement is owned by the Responsible Party. In the event of a change of ownership, the obligations of this contract will be transferred to the new owner.

All operational and maintenance obligations, including any arising technical issues or malfunctions, are the responsibility of the Responsible Party, who also bears the responsibility for the operation and maintenance of the installed sustainable cooling system.

**Copyrights**

While the Responsible Party will receive recognition for their efforts, the intellectual property rights of demonstration project and generated results will remain with UNDP/Cool Up Programme and the solution will be made public.

**Scope Changes**

If unforeseen circumstances require modifications to the project scope, such as alterations to the cooling system's size or installation site, a formal request for a contract amendment must be submitted. Requests must include a justification for the change, a revised project plan, and an

updated budget. In case of accepting the change, UNDP on behalf of Coolup Programme will provide approval in writing.

**Time Extensions**

Extensions to the project timeline may be granted in the event of significant delays due to force majeure events, supply chain issues, or other unforeseen circumstances. Requests for extensions must be submitted in writing at least 30 days before the original completion date with a detailed explanation of the reasons for the delay and a revised schedule.

**Budget Adjustments**

Amendments to the budget may be considered if project costs significantly deviate from initial estimates, provided the total financial contribution ceiling is not exceeded. Requests for budget adjustments must include a detailed financial report explaining the need for the adjustment along with any supporting documentation.

**ANNEX: Criteria for Suppliers of Equipment**

1. The supplier must be legally certified to work in Egypt in the field of cooling systems for at least five years. The Applicant will submit evidence including legal registration documents.

2. The supplier must have a minimum of 3 contracts of similar value, nature, and complexity over the last 5 years in Egypt. The supplier must provide a list of these contracts showing the value, reference person for each contract and certificates, if available.

3. In case of imported equipment, the supplier must be an authorized agent and/or dealer for the international company. The supplier must provide evidence of such authorization (a letter from the international company describing the relationship with the national company). The supplier should also state if there are any local components or assembly of components is done within Egypt.

4. The supplier must be capable to offer after-sales services in Egypt. The supplier must provide evidence of after-sales services and the available facilities such as maintenance and service center and labor, its website and local address in Egypt as well as the availability, in Egypt, of all needed/required spare parts.

5. The supplier must verify the compliance of the supplied equipment with relevant international and national standards and regulations including product design, testing certificates, installation procedures, safety precautions, etc.

6. The supplier must provide a warranty of its supplied equipment of a minimum of one year for the product.

7. Proposal should include suppliers’ commitment to train engineering staff responsible for the

operation of equipment.