



# **Project Implementation Report**

(1 July 2022 – 30 June 2023)

| Project Title:  | Egyptian Programme for Promoting Industrial Motor Efficiency                                  |
|---|---|
| GEF ID:   | 9423  |
| UNIDO ID:   | 160007  |
| GEF Replenishment Cycle:                                | GEF-6   |
| Country(ies):   | Egypt, the Arab Republic of   |
| Region:   | MNA - Middle East and North Africa  |
| GEF Focal Area:   | Climate Change Mitigation (CCM)   |
| Integrated Approach Pilot (IAP) Programs <sup>1</sup> : | NA  |
| Stand-alone / Child Project:                            | Stand-alone   |
| Implementing Department/Division:                       | ENE / ESI   |
| Co-Implementing Agency:                                 | NA  |
| Executing Agency(ies):                                  | Industrial Modernization Centre (IMC) and Egyptian National Cleaner Production Center (ENCPC) |
| Project Type:   | Full-Sized Project (FSP)  |
| Project Duration:                                       | 48  |
| Extension(s):   | 1   |
| GEF Project Financing:                                  | 2,750,000   |
| Agency Fee:   | 261,250   |
| Co-financing Amount:                                    | 16,800,000  |
| Date of CEO Endorsement/Approval:                       | 6/12/2018   |
| UNIDO Approval Date:                                    | 7/5/2018  |
| Actual Implementation Start:                            | 8/6/2018  |
| Cumulative disbursement as of 30 June 2023:             | 1,714,661.60  |
| Mid-term Review (MTR) Date:                             | 6/15/2021   |
| Original Project Completion Date:                       | 8/6/2022  |
| Project Completion Date as reported in FY22:            | 2/29/2024   |
| Current SAP Completion Date:                            | 2/29/2024   |
| Expected Project Completion Date:                       | 2/29/2024   |
| Expected Terminal Evaluation (TE) Date:                 | 2/29/2024   |

<sup>&</sup>lt;sup>1</sup> Only for **GEF-6 projects**, if applicable

| Expected Financial Closure Date:     | 6/30/2024       |
|--------------------------------------|-----------------|
| UNIDO Project Manager <sup>2</sup> : | ATTIA / GHONEIM |

### I. Brief description of project and status overview

#### **Project Objective**

The project objective is to reduce GHG emissions by facilitating and supporting market penetration of highly energy efficient motor systems in the industrial sector in Egypt through promoting policies that support the development of low carbon technologies and mitigation options and demonstrate innovative mechanisms and solutions for technical assistance and financing. The project focuses on implementing a sustainable strategy that utilizes local value chains to meet demand for energy efficient technology in Egypt. The project will strengthen linkages between local manufacturers of energy efficient motors and other products, suppliers, and industrial enterprises/end users.

| Projec | ct Core Indicators   | Expected at Endorsement/Approval stage   |
|--------|--|--|
| 4      | Support to transformational shifts towards a low-emission and resilient development path | 750 million tons of CO2e mitigated (include both direct and indirect Direct: 0.598 Indirect:1.922 Total:2.52 |

#### **Baseline**

The Government of Egypt has identified energy efficiency in Electric Motor Driven Systems (EMDS) as one of the highest impact opportunity areas to increase industrial energy efficiency while combating climate change. Estimates suggest that Egypt has a total stock of 950,000 motors (larger than 1hp), with an installed capacity of over 17GW. The industrial sector accounts for 86% of the installed capacity, with the remaining 14% attributed to the agricultural and commercial sectors. Motor systems consume 60% of the total industrial electricity demand in Egypt accounting for approximately 23,463 GWh. Without policies and support programs in place to encourage motor system optimization and the replacement of old inefficient motors, the industrial sector will continue to find it more attractive to maintain the status quo, postpone the decision to upgrade inefficient motors and continue to rewind old motors due to the low cost of rewinding and electricity compared to the higher costs of new efficient motors.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e., FY23. Please also provide a short justification for the selected ratings for FY23.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management<sup>3</sup>, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e., FY22, in the last column.

<sup>&</sup>lt;sup>2</sup> Person responsible for report content

<sup>&</sup>lt;sup>3</sup> Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

| Overall Ratings <sup>4</sup>  | FY23             | FY22             |
|---|------------------|------------------|
| Global Environmental<br>Objectives (GEOs) /<br>Development Objectives<br>(DOs) Rating | Satisfactory (S) | Satisfactory (S) |
| No changes in ratings   |                  |                  |
| Implementation<br>Progress ( <b>IP</b> ) Rating                                       | Satisfactory (S) | Satisfactory (S) |
| No changes in ratings   |                  |                  |
| Overall <b>Risk</b> Rating  | Low Risk (L)     | Low Risk (L)     |
| No changes in ratings   |                  |                  |

## II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

| Project Strategy  | KPIs/Indicators   | Baseline   | Target level   | Progress in FY23  |  |  |  |  |  |  |  |
|---|---|--|--|---|--|--|--|--|--|--|--|
| Component 1 - Co  | Component 1 - Conducive Policy and Legal Environment for EE Motors  |  |  |   |  |  |  |  |  |  |  |
| Outcome 1: Legisla  | Outcome 1: Legislative and regulatory frameworks for EE motors developed  |  |  |   |  |  |  |  |  |  |  |
| Output 1.1: Recommendations on policy tools and guidelines for the deployment of EE motors developed                          | Number of<br>recommended<br>policy tools and<br>guidelines<br>applicable to<br>energy efficient<br>motors developed | Baseline: 1 MEPS for industrial motors is currently being developed with support from the IFC. The MEPS is expected to go into effect no later than 2021. No other policy tools or guidelines are being developed. | 3 policy tools and guidelines (gender responsive)  | A Market study and updated roadmap to support local industries in the development of Energy Efficiency (EE) and clean technologies for Motors Systems was developed in October 2022 and published on the project website <a href="https://www.imeep-eg.org/wp-content/uploads/2022/12/A-Market-Study-and-Updated-Roadmap.pdf">https://www.imeep-eg.org/wp-content/uploads/2022/12/A-Market-Study-and-Updated-Roadmap.pdf</a> .  This study presents an update to the local manufacturing market of EE motors in Egypt, focusing on the business opportunities (BO) of local manufacturing and the feasibility of top potential BOs. It also updates the roadmap and value chain analysis of the local manufacturing of EE motors, considering the recent market dynamics, particularly reflecting the Covid-19 impact and the launch of the decree 463/2020. The study is divided to four sections as follows;  • Market Assessment of Local manufacturing of electric motors • Business Opportunity Mapping of local manufacturing of EE motors • Feasibility Analysis of local manufacturing opportunities of electric motors components • Roadmap and Policies to support local manufacturing of EE and clean technologies for motors systems.  Rewinders roadmap and guidelines were developed and circulated among |  |  |  |  |  |  |  |
| Output 1.2: Action plans to support rewinding shops in adapting to the changes in the industrial motors marketplace developed | plans and<br>guidelines to<br>support rewinders   | Baseline: 0  | 1 action plan and<br>1<br>guidelines for<br>upgrading<br>operations<br>(gender<br>responsive)<br>developed | project partners and stakeholders. The roadmap was translated into Arabic for wider distribution and knowledge sharing.  Best Practice Manual in Rewinding Three Phase Induction Motors was developed and published on project website; <a href="https://www.imeep-eg.org/wp-content/uploads/2022/05/Best-Practice-Manual-in-Rewinding-Three-Phase-Induction-Motors-Final-28032022.pdf">https://www.imeep-eg.org/wp-content/uploads/2022/05/Rewinding-3-phase-Motors.pdf</a>  |  |  |  |  |  |  |  |

<sup>&</sup>lt;sup>4</sup> Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

|  | Number of action plans to support rewinders in reintegrating into the job market developed and adopted by the relevant stakeholders |  |  | Motor local manufacturing reports developed and circulated among project partners and stakeholders and were translated into Arabic.  An online calculator for the motor registration platform was developed.  Fourth working group conducted presenting ESCO framework, the accreditation, and M&V framework.  Policy gender report was completed and published on project website.       |
|--|---|--|--|---|
| Output 1.3.: Action plan to support local industries in the development of EE and clean technologies for motor systems developed | -Number of action<br>plans to support<br>local industries<br>-Number of match-<br>making<br>opportunities<br>facilitated            | Baseline: 0                                      | 1 action plan to<br>support local<br>industries (gender<br>responsive) by the<br>end of year 2<br>5 matchmaking<br>events by the end<br>of the project | https://www.imeep-eg.org/policy-making-support-material/  Motors registration platform is currently under development. The platform aims at registering the imported and locally manufactured certified motor models. The platform is developed in close cooperation with the Egyptian Organization for Standardization (EOS). A Beta Version is presented to EOS for trial and comments. |
| Output 1.4: ESCO<br>market support<br>policies and tools<br>developed  | Number of<br>supports<br>frameworks for<br>ESCO<br>developed  | There are no support policies in place for ESCOs | 3 ESCO support<br>frameworks<br>developed  |   |

# Component 2 – Awareness and Capacity Building on Energy Efficient Motors

Outcome 1: Key stakeholders trained and awareness campaign conducted on EE motors and motor systems

| Outcome 1: Key sta  | akeholders trained a   | nd awarenes  | s campaign conduct   | ted on EE motors and motor systems   |
|---|--|--|--|--|
| Output 2.1: National awareness campaign on the benefits of EE upgrades to Electric Motor Driven Systems   | -Number of workshops, conferences, stakeholder engagement meetings -Number of people reached (disaggregated by sex) -Award for "EE EMDS Champion" [as part of the Ministry's Innovation Award] with a category for women | Baseline:<br>A few<br>meetings<br>conducted<br>by IFC to<br>promote<br>MEPS/S&L<br>for<br>industrial<br>motors | 20 workshops, conferences, and meetings conducted; 500 people reached (at least 30% women) 1 award ceremony within the life of the project | Managing the project's website and social media platforms.  https://imeep-eg.org/ https://www.facebook.com/MotorsProgramme https://www.linkedin.com/company/71107403/admin/feed/posts/  3 Raising awareness events took place in July 2022 with 135 participants (3.7% females).  Energy video created with Egyptian Ministry of International Cooperation (MoIC) which was disseminated during the "Africa Climate Week 2022" Aug/Sep 2022.  A number of articles were published in August and October 2022 in both languages English and Arabic covering the following topics: "Introduction to the Methodology of Electric Motors Maintenance and Replacement" and "Benefits of Using High-Efficiency Motors & Its Role in Saving Energy".  An English and Arabic infographic video was published on all social media   |
| Output 2.2: Peer-to-peer platform for information exchange, cooperation and partnerships among seekers and providers of services and information on EE motors developed | Number of peer-<br>to-peer platforms<br>established  Number of active<br>participants on the<br>platform<br>(disaggregated<br>by sex)  | Baseline: 0<br>(Basic<br>platform<br>developed<br>for<br>IFC project<br>but<br>currently<br>inactive)          | 1 peer-to-peer<br>platform<br>20 active<br>participants<br>(at least 20%<br>women)   | platforms in August 2022 and disseminated in IMEEP's 1st virtual newsletter.  A virtual newsletter was launched to over 290 technical engineers, local consultants, steering committee members, suppliers, academics, and some project's beneficiaries.  Contributing to the UNIDO Energy Accelerator content creation, show casing the project's efforts on how countries face energy crises, publishing success stories from the project.  A Peer-to-Peer Network was established to promote the deployment of   |
| Output 2.3:<br>Information gained<br>through the 30<br>demonstration<br>projects<br>disseminated  | -Number of<br>published<br>case studies, web<br>stories, or reports<br>about 30<br>demonstration<br>projects   | Baseline: 0  | 30 case studies, reports, or web stories; reaching at least 200 people online (at least 30% women reached)                                 | energy-efficient motor driven systems in the petrochemical and plastics sectors in Egypt, with the participation of 62 representatives from the petroleum sector (11 companies). A LinkedIn group was created in order to enhance communication and better exchange knowledge; https://www.linkedin.com/feed/update/urn:li:activity:7042536512990646272? utm_source=share&utm_medium=member_desktop.  Developing and publishing testimonial and success story from manufacturing company "NatPack" stemming from the peer-to-peer partnership with SIDPEC (https://youtu.be/FopktRZaqYs)  A platform is currently under development and will be hosted by the Industrial Modernization Center (IMC). This platform will serve as a knowledge base for future use by the industrial sector where the project uploads its knowledge content which was accumulated over the years. The platform will also serve |

|   |   |             |   | as a tool to register consultants and services which are offered through the  |
|---|---|-------------|---|---|
| Output 2.4:<br>Industrial end<br>users, suppliers,<br>and motor system<br>optimization<br>experts trained                             | Number of<br>Qualified<br>System<br>Optimization<br>Practitioners<br>(including experts,<br>suppliers and<br>enterprises)<br>trained and<br>certified<br>(disaggregated<br>by sex)  | Baseline: 0 | 300 users, of<br>which<br>50 certified system<br>optimization<br>experts (at least<br>20% women)                          | project.  9 Training rounds took place in reporting period FY-23; 175 trainees (6.8 % females participations)  Training is part of the Peer-to-Peer network established with SIDPEC for the petrochemical sector that covered the following topics;  • Energy Management Systems (EnMS)  • Compressed Air Systems Optimization (CASO)  • Motors Systems Optimization (MSO)  • Pumps Systems Optimization (PSO)  Overall, the project completed 38 training rounds with total 1,187 trainees (191 females 16.1%) |
| Output 2.5: Local rewinding and refurbishing workshops technical capacity improved  | Number of staff<br>from<br>rewinding<br>workshops<br>trained in best<br>practices   | Baseline: 0 | Staff from 20<br>rewinding<br>workshops trained<br>on best practices<br>for rewinding                                     | 56 qualified system optimization experts (17.85% females)  Completed and reported previously in FY22 with no further updates;  Rewinders best practices manual, guidelines and training material for the local rewinding and refurbishing workshops were developed and used.  3-Days rewinders training took place in March 2022 over two rounds with the presence of 28 trainees (1st and 2nd rounds) 0% females.  |
| Component 3 – Te  | echnical Assistance   | for Techno  | logy Demonstratio   | n and Upgrading   |
| Outcome 1: Techno   | ology demonstrations  | and mecha   | nism to support wide  | e scale deployment are in place   |
| Output 3.1: Detailed motor efficiency audits for 40 selected enterprises conducted by UNIDO-trained motor system optimization experts | -Number of detailed motor efficiency audits and technical assistance support conducted -Number of EE motor upgrade projects implemented with support from GEF   | Baseline: 0 | 40 energy audits and technical assistance support to identify EE measures conducted 30 motor upgrade projects Implemented | 16 new registration forms received 24 walkthrough visits were reported.  Reaching over 240 registration forms, 100 walkthrough reports and 52 audit reports during project life time, exceeding the project target in the number of audit reports by 30%.  Through the peer-to-peer platform, technical support is provided to 5 companies in order to develop feasibility studies for MSO, CASO, PSO   |
| Output 3.2:<br>Technical and<br>business advisory<br>services for 30<br>motors<br>upgrade projects<br>facilitated                     | Number of pilot<br>and<br>business projects<br>receiving technical<br>and business<br>advisory services   | Baseline: 0 | 30 enterprises and projects receiving TA  | projects.  In total, more than 75 enterprises have received technical support from the project, exceeding the project targets by more than 100%.  |
| Output 3.3:<br>System<br>optimization for<br>EMDS<br>implemented and<br>EE motors<br>installed in 30<br>enterprises                   | -Number of motors upgrade and system optimization projects implemented with support from GEF -Number of industrial facilities with firm plans to procure and install EE motors due the technical assistance provided by the project |             | 30 EE motors and system optimization projects 30 industrial facilities assisted   | 240 registration forms received from beneficiaries 100 walkthrough reports developed 52 audit reports developed exceeding the project target in the number of audit reports by 30%.  In total, more than 75 enterprises have been assisted and have received technical support from the project, exceeding the project targets by more than 100%.   |
| Output 3.4:<br>Public private<br>partnerships with<br>international<br>suppliers  | Number of public-<br>private<br>partnerships with<br>international<br>suppliers   | Baseline: 0 | 1 public-private partnership  10 EE motors projects initiated through   | A series of sessions were conducted by the project lead by IMC branches' staff to promote the deployment of energy-efficient motor driven systems to the private sector in various industrial areas as reported in output 3.2. Those sessions have lead to the participation of the beneficiaries and their willingness to be enrolled in the project services.   |

| developed to<br>accelerate the<br>deployment of EE<br>motors  | Number of EE<br>motors<br>projects initiated<br>through<br>these partnerships  |                | these partnerships  |  |
|---|--|----------------|---|--|
| Component 4: Supprades  | pport for developin  | g the ESCO     | market, with a spe  | cific focus on EMDS optimization and motor   |
| Outcome 1: ESCO   | models to provide e  | nergy efficier | ncy services to indus   | try piloted  |
| Output 4.1: Contractual framework for energy performance contracting [ESCO business models] developed                         | -Number of contractual frameworks developed  -Number of arbitrations and dispute resolution options identified and disseminated  -Number of trainings for independent arbitration bodies | Baseline: 0    | contract for energy performance contracting, with a specific focus on EMDS  1 guideline developed on arbitration and dispute resolution relating to EPC projects  3 trainings for independent arbitration bodies in | The ESCO business model was developed and discussed with project partners in a working group as mentioned in component1.  A consortium composed of Eenovators and Shahata & partners is working to develop the Contractual framework for energy performance contracting for ESCOs. The consortium will develop 3 contracts forms covering the 3 models which were proposed through the ESCO assessment report which were developed through component 1 (not only 1), based on the market needs. The draft contracts will be delivered in August 2023 and will be discussed with various stakeholders to incorporate comments and findings.  The consortium is also working on the development of the guideline and training material for the arbitration body which was identified namely "The Cairo Regional Centre for International Commercial Arbitration"   |
| Output 4.2:<br>M&V tools<br>established and   | -Number of M&V tools made available  | Baseline: 0    | Egypt on ESCO<br>contracts (at least<br>20% women<br>participants)  - 1 standard M&V<br>plan for EMDS<br>projects   | https://crcica.org/  A call for expression of interest for potential ESCOs was published by the project. Approximately, 20 ESCOs showed interest in engaging to the project technical services and activities.   |
| made available to<br>ESCOs, M&V<br>providers and<br>industry  | -Number of M&V<br>service providers<br>trained<br>-Number of M&V<br>service providers<br>accredited  |                | - 1 mobile testing<br>lab to support<br>M&V activities<br>developed<br>-10 M&V service<br>providers trained<br>-2 M&V service<br>providers  | The technical material which will be delivered to potential ESCOs are in the process of preparation and will be finalized in August 2023 in order to deliver the training in September 2023 as planned.  The project has identified potential candidates who will carry out the M&V function. Those candidates are the calibre who have been qualified by UNIDO in various technical trainings on EnMS, MSO, CASO, PSO and who have high technical skills to fulfil this function. Potential M&Vs will receive technical training by the project in order to familiarise them on how to check energy savings and establish the necessary links with the ESCOs,   |
| Output 4.3:<br>ESCO businesses<br>developed<br>and established  | -Number of motors systems optimization experts/companies registered to implement EPC projects within the market  | Baseline: 0    | accredited 5 experts/companies (at least 1 women expert/women-led business)   | the industrial sector beneficiaries as well as the financing institutions.  The technical material for the M&V training is currently under development and will be finalized in August 2023 for the training to be delivered in September 2023.  Setting up the revolving fund which supports the industrial sector  |
| Output 4.4: Output<br>4.1.4: Revolving fund to<br>offer project-<br>based financing<br>packages EPC<br>projects<br>introduced | -Number of financial institutions participating in the revolving fund -Number of bank officers trained in energy performance contract project assessment -Number of energy service       | Baseline: 0    | -1 participating financial Institution -10 bank officers trained (at least 30% women) -10 companies/MSO experts trained (at least 20% women) \$500,000 invested   | and/or local manufacturers as well as energy service companies to implement energy projects, with a total budget of US\$ 500,000 is currently in its final stages. Setting up this fund will follow the same structure of the GEF5 USD 4 Million revolving fund for promoting the deployment of solar thermal installations with the National Bank of Egypt (NBE). The project steering committee agreed to the project proposal and has identified NBE as the bank which will host this fund because NBE provides its financial expertise, experience, guidance and knowledge administering the revolving fund. Also, NBE provides an equivalent amount of fund from its own resources to the UNIDO-GEF fund, doubling up the total fund's amount which is allocated for serving the beneficiaries. A contract will be signed between UNIDO and NBE as soon as the internal review process is completed by the procurement department in UNIDO. |

service

companies/MSO experts trained in

|  |  |               | ı  |   |
|--|--|---------------|--|---|
|  | financial analysis for EPC projects  -\$ invested in EMDS optimization projects during the life of the project |               |  |   |
|  | project  | 1             |  |   |
| Component 5: Mo  | nitoring and Evalua  | ation         |  |   |
| Outcome 1: Project   | t progress towards o   | bjectives con | tinuously monitored                              | and evaluated   |
| Output 5.1.: Project progress monitored, documented and recommended actions formulated | Number of evaluations reports completed  | Baseline: 0   | 1 Midterm review<br>and 1 Terminal<br>Evaluation | Monthly reports are generated by the project team for internal use.  Quarterly reports submitted to the Government (the Ministry of Trade and Industry) covering project summaries and disbursements. |
| Output 5.2.<br>Terminal<br>Evaluation (TE)<br>conducted in a<br>timely manner          | Number of progress reports   | Baseline: 0   | At least one progress report per year            | Total three progress reports developed (3-PIRs)  4 GEF reports (2020, 2021, 2022, 2023)  12 MTI Quarterly Reports  Mid-Term Evaluation (MTR) completed.  TE planned for Q1 2024                       |

# III. Project Risk Management

**1.** Please indicate the <u>overall project-level risks and the related risk management measures</u>: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

|   | (i) Risks at CEO<br>Stage   | (i) Risk<br>level<br>FY22 | (I)<br>Risk<br>level<br>FY23 | (i) Mitigation measures   | (ii) Progress to-date  | New<br>defined<br>risk <sup>5</sup> |
|---|---|---------------------------|------------------------------|---|--|-------------------------------------|
| 1 | Policy<br>recommendations<br>are not<br>approved or<br>effectively<br>enforced by<br>relevant | Low                       | Low                          | The project will develop policy recommendations and tools in close collaboration with all relevant stakeholders including: policy makers, industrial sector representatives and EE                    | The Ministry of Trade and Industry is encouraging the adoption of highly efficient motors. A ministerial decree #463 was issued in October 2020, identifying the Minimum Energy Performance Standard (MEPS) and promoting the use of IE3 motors.  The project developed policy recommendations and   | Low 🗌                               |
|   | authorities   |                           |                              | motors manufacturers. By creating final recommendations, tools, and action plans in an inclusive, collaborative manner, it is expected that the recommendations are adopted and effectively enforced. | various operational policy tools, guidelines, market sizing and engagement plan were developed. The project has formulated a working group comprising various stakeholders to include 14 different entities in order to encourage participation and sharing of opinions and views. A series of meetings were held where the policy recommendations were presented and welcomed by the stakeholders. The policy recommendations were enforcing the Ministerial decree and helping the Ministry in its implementation. |                                     |
| 2 | Users of old<br>motors do not<br>want to<br>purchase EE<br>motors                             | low                       | Low                          | End users of industrial motors<br>may not want to replace their<br>old motors, especially if they<br>are still functional. The project<br>will include comprehensive<br>awareness raising and         | The Minister of Trade and Industry has issued a decree # 463/2020 with six articles to support manufacturers and producers of the Electric Motors to move to IE3 and gave them a grace period for smooth transition.   | Low 🗆                               |
|   |   |                           |                              | promotion activities to ensure<br>that end users fully understand<br>the benefits of EE motors,<br>especially from an energy and<br>cost savings perspective.   | The Project is creating the enabling environment through the policy recommendations and proposing various tools to enforce the above-mentioned decree and through the advocacy for the use of highly efficient motors so that end users would recognize the benefits   |                                     |

<sup>&</sup>lt;sup>5</sup> New risk added in reporting period. Check only if applicable.

|   |   |        |        | Through the ESCO business models, the up-front cost of replacing the motors will be shifted to the ESCO and its financing institutions and therefore reduce this risk.  | which they will gain when changing to highly efficient motors. The project aims at helping the government to reach a smooth transition to highly efficient motors systems in the near future.  |        |
|---|---|--------|--------|---|--|--------|
| 3 | ESCOs local<br>market remains<br>underdeveloped   | Medium | Medium | The ESCO market in Egypt is underdeveloped as there is limited expertise, awareness and service supply in the country. To mitigate this risk, the project has identified the challenges faced by local ESCOs, especially with regards to working with industrial enterprises  The project will provide technical support to the relevant stakeholders to develop a contractual framework for EPC, an accompanying dispute and arbitration mechanism, independent M&V protocols, business plans and opportunities to access finance for MSO and EE motors upgrades. It is expected that the ESCOs market will expand and the industrial sector will be eager to seek ESCOs services. | The Industrial Motors Energy Efficiency Programme aims to focus on Energy Service Companies' (ESCO) market transformation by identifying challenges in the ESCO assessment, specifically: lack of an enforceable contractual framework, lack of M&V frameworks and expertise, and lack of access to finance for ESCOs.  Contractual framework for energy performance contracting (ESCO business models) to be developed.  M&V tools to be established and made available to ESCOs, M&V providers and industry.  ESCO businesses to be developed and established.  Revolving fund to offer project-based financing packages for system optimization EPC projects to be introduced   | Medium |
| 4 | Industrial enterprises receiving TA and/or the ESCOs might not be able to come up with the required co- financing | Low    | Low    | Industries, especially SMIs, might not be able to access financing to cover system optimization and motor upgrade projects. This could cause delays in the demonstration projects, limiting the opportunity to disseminate success stories and to develop case studies. The demonstration projects will be designed so that milestones can be documented and disseminated with the aim of encouraging knowledge sharing and peerto-peer dialogue.  In order to mitigate the cost and risk factors, the project will establish a \$500,000 revolving fund with a participating financial institution to support  | The industrial sector is eager to receive UNIDO services related to the TA for EE Motors as a continuation of the GEF4 Industrial Energy Efficiency project which has created a market for EE services in Egypt.  A Market study and updated roadmap to support local industries in the development of Energy Efficiency (EE) and clean technologies for Motors Systems was developed in October 2022 and published on the project website <a href="https://www.imeep-eg.org/wp-content/uploads/2022/12/A-Market-Study-and-Updated-Roadmap.pdf">https://www.imeep-eg.org/wp-content/uploads/2022/12/A-Market-Study-and-Updated-Roadmap.pdf</a> .  This study presents an update to the local manufacturing market of EE motors in Egypt, focusing on the business opportunities (BO) of local manufacturing and the feasibility of top potential BOs. It also updates the roadmap and value chain analysis of the local manufacturing of EE motors, considering the recent market dynamics, particularly reflecting the Covid-19 impact and the launch of the decree 463/2020. The study is divided to four sections as follows;  • Market Assessment of Local manufacturing of electric motors • Business Opportunity Mapping of local manufacturing opportunities of electric motors components • Feasibility Analysis of local manufacturing opportunities of electric motors components • Roadmap and Policies to support local manufacturing of EE and clean technologies for motors systems. | Low    |
| 5 | Climate change risk   | Low    | Low    | Climate change would not impact the implementation of this project.   | None   | Low 🗆  |

| • | Socio-economic risk: Industrial enterprise owners lose interest in the programme due to lower energy prices and longer payback periods  | Low    | Low    | The Government of Egypt has extended its five-year plan to phase out energy subsidies until 2021, which means that the costs for energy in the industrial sector will rise each year. Furthermore, the lack of security of the energy supply has become a major driver for industrial consumers to adopt EE measures. The project will highlight the benefits both financial and social of energy efficient motors to mitigate this risk   | Egypt was initially planning to entirely phase out electricity subsidies by the end of the 2018-2019 fiscal year, but it extended the period until the end of 2021-2022, before announcing in June 2020 that subsidies will be phased out even more gradually through 2024-2025.  In July 2022; Egypt announced to spend EGP 55 billion in annual diesel subsidies during the fiscal year FY 2022/23 after the government's decision to raise diesel prices for the first time in 30 months by EGP 0.5 per litre.  In June 2023; The Egyptian cabinet has announced planning to implement a new increase in electricity prices, starting from July 1, 2023, due to the increase in natural gas and fuel prices.  Egypt postponed applying electricity price increases for three times, which led to the state budget bearing nearly LE25 Billion due to the increase in natural gas and fuel prices.  | Low    |
|---|---|--------|--------|--|---|--------|
| 7 | Economic and financial instability  | Low    | Medium | Future economic and financial instability in Egypt could result in currency devaluation and increased interest rates. Changes in the financial market could affect the ability of industrial enterprises to access finance. Increased interest rates could make EE investment, especially motors upgrades, unattractive for industrial enterprises. This project, therefore, will provide a \$500,000 revolving fund with stable terms and conditions, so that ESCOs and industrial end users can access finance for MSO upgrades and support public-private partnerships with suppliers to offer low prices and soft-financing options for EE motors upgrades | Electricity and gas prices in Egypt are increasing and subsidies are being waived specially from the private industrial sector. Prices for electricity fees are expected to hike between 17 to 30 percent starting July 1, 2023. The change, in line with the government's plan to gradually removing power subsidies, will manifest in the August 2023 electricity bills where the subsidy lifting delay will cost the government EGP 26.7 billion (approximately \$1.64 billion).  Egypt has devalued the Egyptian pound by about 50% against the dollar since February 2022. Inflation rates have dramatically increased, reaching 31%. This has had an enormous impact on the country's economy. As the local currency loses value, companies have had to adjust their budgets and business strategies to remain competitive. Currency risk, commonly referred to as exchange-rate risk, arises from the change in price of one currency in relation to another. Investors or companies that have assets or business operations across national borders are exposed to currency risk that may create unpredictable profits and losses.  Commercial lending rates in banks, have increased to reach approximately 19%. This might affect the appetite of the private sector to borrow fund from the banks and will affect the subsidized interest rate which the project is intending to provide through its revolving fund. | Medium |
| 8 | Social and Gender Risk: There could be a risk of resistance against the involvement of women or activities that promote GEEW. Or there could be a lack of interest in the project activities from stakeholders, especially with regards to the active promotion of gender equality. Low participation rates of suitable female candidates due to lack of interest, inadequate | medium | Medium | To mitigate this risk the project will pursue thorough and gender responsive communication showing the benefits of gender equality for both women and men, and ensure stakeholder involvement at all levels, with special regard to involving both women and men, as well as CSOs and NGOs promoting GEEW, and gender experts. This shall mitigate social and gender related risks, promote gender equality, create a culture of mutual acceptance and understanding, and maximize the potential contribution of the project to improving gender equality in the energy field. To attract qualified female candidates to the project, adequate and gender      | Awareness raising activities is all inclusive of females.  All campaigns completed under the second capacity building component outreach for both genders equally with the encouragement of females' participation.  The project has succeeded to complete 38 training rounds during its life time with a total of 1,187 trainees including 191 females (16.1%) participation.  Awareness raising took place during project life-time for 704 participants with 155 females (22%)  With regards to project management, the Project Steering Committee meetings had female participation of 32% females at the third steering committee meeting.  Qualified consultants females; 17.8% equivalent to 10 female qualified consultants out of 56.  Policy component; all working groups had female participation of 21% equivalent to 38 females out of 180 participants.  | Medium |

project activity or responsive communication Complete gender report completed covering gender missing qualified strategy will be carried out by and gaps analysis within the motors industry and EE in female population reaching out to women's the Egyptian market was developed in October 2022 groups and associations, while within and published on project website https://www.imeepeg.org/wp-content/uploads/2022/12/Gender-Report.pdf. engineering also making trainings and sector workshops accessible for This report assesses the level of gender balance and barriers to women inclusion along the value chain, an women, e.g., by providing safe transport, offering childcare, overview of female participation in the labor market with offering trainings at suitable focus on industrial sector at large based on literature times for women when and interviews with the value chain players to shed light children are in school and dayon barriers and challenges women could face in the EE care, etc. If necessary and in motors and EMDS value chain. the scope of the project additional bridging courses for Media coverage activities focus on women women will be considered, representation to promote and empower female developed and implemented to participation within this sector. empower women 2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this. Not Applicable 3. Please indicate any implication of the COVID-19 pandemic on the progress of the project. Reported previously in FY22: The COVID-19 pandemic has led to slow down of the implementation rate due to restrictions and protective measures in Egypt. The project is working on accelerating the project execution towards catching up with all delays during the current and coming period. The completion date was highly impacted by the pandemic and a request for extension was raised and approved during 3<sup>rd</sup> steering committee meeting. **4.** Please clarify if the project is facing delays and is expected to request an **extension**. The project might request extension beyond February 2024 due to the delays in setting up the revolving fund and consequently the delays in its operationalization. 5. Please provide the main findings and recommendations of completed MTR, and elaborate on any actions taken towards the recommendations included in the report. Reported previously in FY22 report. IV. Environmental and Social Safeguards (ESS) 1. As part of the requirements for projects from GEF-6 onwards, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project? Category A project Category B project Category C project

(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

Please expand the table as needed.

|   | E&S risk   | Mitigation measures undertaken during the reporting period   | Monitoring methods and procedures used in the reporting period   |
|---|--|--|--|
|   | Replaced motors in industry are not disposed in a sustainable way.         | - Clarification note to elucidate<br>the details and scope of Decree<br>#463/2020 ( developed)<br>- Effective Market Regulation<br>Framework for Decree<br>#463/2020 implementation (  | The project is currently working on developing potential surveys to monitor methods and procedures (under development) |
|   |  | developed)  - Registration of EE motor models (informative): creating a platform to register IE3 and higher efficiency motor models will inform end-users and allow them to ensure they procure compliant motors while being able to find reliable information on motor efficiency and savings. (under development)  |  |
|   |  | <ul> <li>Mainstreaming of motors<br/>finance within existing green<br/>finance facilities</li> </ul>   |  |
| (i) Risks identified in ESMP at time of |  | - Knowledge and Awareness Raising conducted on various important aspects including the scope of the decree, saving opportunities, value proposition for end-users and suppliers, payback and techno-financial details, etc.  |  |
| CEO Endorsement                         |  | 9423_Policy Report_Final 24072022  |  |
|   |  | 9423_UNIDO - Motor Rewinders<br>Roadmap and<br>Policies_20220612   |  |
|   | Rewinding of motors has health and safety implications on the technicians. | Adding a section with regards to the health and safety of the technicians/engineers in the rewinders guidelines is under progress.   | A section focusing on the health and safety of the technicians/engineers was added in the rewinders guidelines         |
|   | Job loss for rewinders   | Under a conclusion of the rewinding roadmap, the assessment showed an expected business loss of about 330,000 USD, versus an expected business gain of about 600,000 USD. Therefore, the net expected impact is a business gain (or increased market size) of about 270,000 USD. Accordingly, it is concluded that no specific measures are required to mitigate the negative impact of the decree on the Egyptian motor rewinding market. | The project confirmed that the net result will be business gain.   |

|   |     | 9423_UNIDO - Motor Rewinders<br>Roadmap and<br>Policies_20220612 |     |
|---|-----|--|-----|
| (ii) New risks identified during project implementation (If not applicable, please insert 'NA' in each box) | N/A | N/A  | N/A |

## V. Stakeholder Engagement

**1.** Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

## Ministry of Trade and Industry

<u>Mandate:</u> MTI is responsible for overseeing activities related to industrial development and international trade.

<u>Progress</u>: The ministry is supporting the project and issued a minister decree # 463/2020 to force manufacturers and producers of the Electric Motors to move to IE3 which is considered the corner stone for the projects' implementation activities.

The Ministry has identified both the Industrial Modernization Centre (IMC) and the Egyptian National Cleaner Production Centre (ENCPC) to be the national executing entities in order to ensure sustainability and consequently the IMC was added as a stakeholder.

Challenges: None

<u>Outcomes</u>: The project has close collaboration with MTI as the main Government counterpart responsible for the overall coordination and monitoring of this project. The Ministry is the chair of the Project Steering Committee (PSC) where 3 meetings took place.

MTI approved the project extensions, involved in the MTR assignment and continuous communication channel is established with the ministry for collaboration and alignment on project outputs with the Ministry's plans and strategies.

## Egypt National Cleaner Production Centre (ENCPC) of the Ministry of Trade and Industry

<u>Mandate:</u> Egyptian National Cleaner Production Center (ENCPC) established by the Ministry of Industry, Trade & SMEs (MITS) in close cooperation with the UNIDO as a service provider for the Egyptian Industry providing technical assistance for technology transfer in the fields of resource efficiency in addition to energy efficiency and renewable energy applications.

<u>Progress:</u> PMU with ENCPC and IMC are collaborating to focus on the technical activities and services to be provided during the project time and beyond its life-time inclusive to assisting the registered industrial factories to become energy efficient factory.

During project life-time a total of 100 walkthroughs took place by ENCPC under IMC supervision.

<u>Challenges:</u> Deficiency of human resources available at the ENCPC has impacted achieving targeted technical assistance indicative numbers within the project.

<u>Outcomes</u>: The project identified ENCPC in collaboration with IMC as the executing agency for this project due to their strong relationships with governmental stakeholders, suppliers, and industrial enterprises. ENCPC with IMC focus on executing project outcomes such as creating policy recommendations and tools in Component 1 (Outputs 1.1.1, 1.1.2, and 1.1.3); raising awareness and trainings on the benefits of EE EMDS in Component 2 (Outputs 2.1.1, 2.1.4, and 2.1.5); and; supporting industrial enterprises and demonstration projects (Outputs 3.1.1 and 3.1.3).

#### **Industrial Modernization Center (IMC)**

<u>Mandate:</u> The industrial Modernization Center (IMC) provides technical support to the industrial sector through performing Preliminary Energy Audits (PEA) and delivering energy efficiency Technical Assistance (TA) services as well as fostering the implementation of energy management systems. Furthermore, the project has encouraged a favourable technology transfer environment to enhance technological and non-technological innovation while stimulating the set-up of a supply chain in the EE sector. The proposed project will build upon the IMC by supporting technology demonstration for motor system optimization and EE motor deployment in the industrial sector as well as developing the market for ESCOs.

<u>Progress</u>: IMC is working closely with the Project Management Unit PMU throughout components 1, 2 &3. IMC participated in the first, second and third project steering committee meetings and presented to all members the progress covering the capacity building activities as they are responsible for all logistical aspects of the trainings. In addition to adding the list of verified trained consultants of the project to their list of certified consultants with MSO and CASO services to the list of provided services by IMC. Also, IMC is supporting policy component development by hosting the working group meetings and handling logistical matters inclusive of development of meeting minutes and distribution amongst all WG members.

During project life-time a total of 100 walkthroughs took place by ENCPC and Service providers under IMC supervision.

The fourth working group meeting was held in October 2022 in cooperation with IMC covering ESCO market support policies. Frequent meetings and open communication channel are well-established with IMC.

<u>Challenges</u>: IMC as a strong technical governmental arm of MTI has strongly supported the implementation of the project, however several challenges were raised and communicated with IMC during the implementation period such as; communication delays, various changes in IMC management led to prolonged hand-over period as well as challenges in events management/organizational quality. That resulted in several bottle-necks in contract management and amendments that impacted project implementation schedule

<u>Outcomes</u>: The project identified ENCPC in collaboration with IMC as the executing agency for this project due to their strong relationships with governmental stakeholders, suppliers, and industrial enterprises. Therefore, the ENCPC with IMC will focus on executing project outcomes such as creating policy recommendations and tools in Component 1 (Outputs 1.1.1, 1.1.2, and 1.1.3); raising awareness and trainings on the benefits of EE EMDS in Component 2 (Outputs 2.1.1, 2.1.4, and 2.1.5); and; supporting industrial enterprises and demonstration projects (Outputs 3.1.1 and 3.1.3).

#### Egyptian Environmental Affairs Agency (EEAA)

Mandate: EEAA represents the executive arm of the Egyptian Ministry of State for Environmental Affairs. The Administrative Council of the Agency is composed of the Minister of Environmental Affairs as Chairman, with the EEAA Chief Executive Officer as Vice Chairman, plus representatives from the ministries involved in environmental issues, non-governmental organizations (NGOs), the State Council, the public business sector, universities and scientific research centres. The main functions of EEAA include: i) Formulating environmental policies. ii) Preparing the necessary plans for environmental protection and environmental development projects, following up their implementation, and undertaking pilot projects. In addition, EEAA is the National Authority in charge of promoting environmental relations between Egypt and other countries, as well as regional and international organizations.

<u>Progress and Outcome</u>: EEAA is engaged with the project through annual meetings (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> PSC meetings). It was fully briefed about the project implementation since it is the main coordinating entity responsible for monitoring progress. EEAA had 3 representatives attending the 3<sup>rd</sup> PSC meeting as well as their engagement through participation in the policy working group and involvement in Mid-Term Review.

#### Egyptian Organization for Standardization and Quality (EOS) - Under MTI

Mandate: The official body responsible for standardization activities, and quality and industrial metrology aiming at increasing the competitiveness of the Egyptian products in the international and regional markets along with consumer's and environment protection.

Role: EOS assists with Component 1 and Component 4: developing policy tools and guidelines (Output 1.1.1) and supporting the accreditation and certification of ESCOs MSO experts (Output 1.1.4 and Output 4.1.3).

Challenges: None

## Progress and outcome:

Work is on-going with EOS on developing an online registration platform for suppliers to register motors standards IE1, IE2, IE3. The online platform will assist the consumers in ensuring the energy saving from motors they purchase, raise awareness of consumers on efficiency values of motor models available in the market and facilitate linkages between motor importers and producers, and end-users.

EOS is fully engaged with the project on many levels; through participation in policy working, steering committee meetings and mid-term evaluation.

#### Federation of Egyptian Industries (FEI)

<u>Mandate</u>: FEI is a group of industrial associations with It has 16 Chambers and 17 Decision Support Committees that develop programs and services to facilitate and support the various industrial associations within Egypt. FEI's business agenda is:

- i) To directly represent members' interests before governmental and legislative bodies, as well as other local and international associations.
- ii) To participate in developing policies and legislation that result in encouraging investment and developing suitable environments conducive to rapid growth of national economy.
- iii) To advocate for structural reforms that lead to transparency in governmental legislative and enforcement practices.
- iv) To contribute to the development of Egyptian industry by adopting new technology and international quality standards

Role: FEI play a role in promoting the peer-to-peer knowledge sharing platform in Component 2 (Output 2.1.2) and disseminating calls for proposals for industrial enterprises to benefit from energy audits and demonstration projects in Component 3 (Outputs 3.1.1, 3.1.2 and 3.1.3).

<u>Progress</u>: The project has invited FEI to all three steering committee meetings to engage the federation in the project implementation and meeting minutes and progress reports are shared after each PSC meeting. <u>Challenges</u>: FEI was invited to all steering committee meetings however no show up. Environmental Compliance Office (ECO) Office has participated in 3<sup>rd</sup> PSC meeting.

#### General Organization for Import and Export Control (GOIEC) - under MTI

<u>Mandate</u>: The General Organization for Import and Export Control is an authority directly affiliated to the Minister of Economy and Foreign Trade which main functions are:

i) Import and export control, ii) Issuance of Certificates of Origin

<u>Role</u>: The organization's role in the project will focus on Component 1: developing policy tools and guidelines to promote EE motor deployment (Output 1.1.1) and support the action plan for local manufacturing (Output 1.1.3).

#### Progress and Outcome:

GOEIC is responsible for motors imported testing and auditing at its testing facilities. ICA to monitor locally manufactured motors.

At the beginning of the project; A meeting was conducted with GOIEC director to be fully briefed about the project objectives, targets and challenges. GOIEC director was informed of the project status and the expected role of its esteemed organization within the project framework and received its support. GOIEC manager director has participated in all three working groups meetings under the policy component umbrella and the meeting minutes were shared to be aligned with the different roles and responsibilities of the different project entities.

Another meeting was developed on the 2nd of November 2021 with GOIEC, EOS, and ICA to discuss their roles regarding decree no 463. They agreed on the technical memo and finalize the operational framework/market regulation for the decree 463/2020\_Motors Decree Operational Framework

Finally, GOIEC has participated in the workshop held on 9th of March 2022 for the validation of the roadmap

to support the rewinding motor industry as well as the presentation of the market study for local manufacturing of motors systems as well as regulation framework for Decree 9432. GOIEC has also contributed to the business-to-business linkage event which was held on the 30<sup>th</sup> of March 2022. The event focused on connecting components manufacturers with producers of motors, suppliers, and financial facilities.

**2.** Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

The project team conducts close coordination with all its stakeholders and collects continuous feedback from MTI and its affiliated entities such as ENCPC and IMC. The project communicates with the private sector such as SIDPEC where a peer-to-peer network is established, as well as regular links with the industrial sector companies on their technical assistance appetite. Ministry of International Cooperation has participated in UN Day that took place in close partnership with MoIC in Q1 2023 which was a further opportunity to showcase the project achievements.

3. Please provide any relevant stakeholder consultation documents.

Please list here the documents which will be submitted in addition to the report

- 9423\_B2B Event report \_October2022
- 9423\_Best Practice Manual in Rewinding Three Phase Induction Motors.docx
- 9423\_IMEEP-Gender Brochure
- 9423 IMEP 3rd PSC MoM 06DEC2022 FINAL
- 9423\_IMEP 4th WG MoM Oct2022
- 9423\_IMEP UNIDO PIR -3 Final
- 9423\_Inception Report For the UNIDO Development of ESCO Framework in Egypt\_Final
- 9423\_Inspirational Women & Their Success Stories
- 9423\_Motor Rewinding Guideline- Final\_20220815
- 9423\_Motor value chain validation workshop (WS1)
- 9423\_MTI Annual Progress Report\_IMEEP 2022
- 9423\_MTI\_UNIDO IMEEP Quarter Progress Report\_Q1 2023
- 9423\_MTI\_IMEEP Project Disbursement Plan Q1-2023
- 9423\_MTI\_IMEEP Project Disbursement Plan Q3-2022
- 9423\_MTI\_IMEEP Q3 2022 Projects Progress Report
- 9423 MTI IMEEP Q4 2022 Projects Progress Report
- 9423\_P2P-EEPPP First progress report 1-09-2022
- 9423\_P2P-EEPPP Second progress report 29-03-2023
- 9423\_SAP 30June2023
- 9423 UNIDO IMEEP Communication Assets 2022

#### VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress** achieved **on implementing gender-responsive measures** and **using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent).

Using previous reporting period as a basis;

IMEEP project has gender dimension integrated within project activities, publications and all related events. This is apparent within the gender sensitive language in publications, photos showing both women and men via project social media platforms and website, women representation is highlighted in pictures, videos and statements to empower and encourage women involvement in the industrial sector.

- 4<sup>th</sup> policy working group female participation 29% (11 females out of 37 attendees) reaching to a total for Policy component; all working groups female participation 21% (38 females out of 180).
- Complete gender report completed covering gender and gaps analysis within the motors industry and EE in the Egyptian market: 9423\_ Gender Baseline Report\_UNIDO Motors
- The project targets women attendance at all training courses during the project duration whether to engage women as participants or as facilitators. Females' participations is 206 with equivalence of 16.3 % of the overall trainees attendance. (Increased from 13% at last reporting period)
- Mainstreaming Gender in the Energy Sector brochure developed (add to the supporting documents)
- Awareness raising took place during project life-time for 704 participants with 155 females (22%)
- Reporting tool completed end of 2022 regarding the planned activities of gender streaming activities and the completed actions: 9423\_GEEW ENE Work Plan 2021\_Review2021 and plan for June 2022
- Gender-sensitive recruitment will be practiced at all levels, when possible, especially in selection of project staff and consultants.: This is evident through the PMU setup consisting of 88% of females.
- With regards to project management, the Project Steering Committee meetings had female participation of 32% females at the third steering committee meeting.

## VII. Knowledge Management

1. Using the previous reporting period as a basis, please elaborate on any **knowledge management activities** / **products**, as documented at CEO Endorsement / Approval.

Using previous reporting period as a basis; the project continues its update on social media platforms (LinkedIn, Facebook, Instagram) with the latest news, events and meetings for public engagement.

The project has conducted the following during its time-span;

- 4 Working groups with more than 14 different entities participations; briefed about the project objective, targets and expected outcomes. The entities received a full presentation and WG meeting minutes as part of the knowledge management activities.
- Third project steering committee meeting took place in November 2022 with the attendance of 18 participants representing 7 entities.
- Virtual Newsletter launched in August 2022 with objective of providing updated information to the interested target audience (over 300 subscribers)
- Matchmaking Business Event; Enhancing Business Linkages & Networking with the objective of paving the way for collaborations within the different sectors having various participants: Motors Manufacturers, Exporters, Government Sector and National & International Funding Enterprises
- Project participation in different forums such as; COP27, Siemens Energy Egypt Service Centre/Egyptian German Technical Academy (EGTA), the Third Egyptian Petroleum Sector Energy Efficiency Conference & Exhibition (EPEEC 2022).
- 10 Awareness Sessions (webinars and seminars): 710 participants
- Project website tab Publications containing https://www.imeep-eg.org/manuals/;
  - Training material
  - o Infographics
  - o Promotional Material
  - Policy making support material

Training Manuals

#### 2. Please list any relevant knowledge management mechanisms / tools that the project has generated.

- LinkedIn: https://www.linkedin.com/company/industrial-motors-efficiency-program-imep-project
- Facebook: https://www.facebook.com/MotorsProgramme
- Twitter: https://twitter.com/MotorsProgramme
- YouTube channel: .youtube.com/channel/UCNS7hnr07c33zgMkWV- lgg
- Website: https://www.imeep-eg.org/
- QR code flyer for Infographics: <a href="https://www.imeep-eg.org/wp-content/uploads/2022/06/QR-code-flyerIMEEP.pdf">https://www.imeep-eg.org/wp-content/uploads/2022/06/QR-code-flyerIMEEP.pdf</a>
- Infographic brochures: <a href="https://www.imeep-eg.org/infographics/">https://www.imeep-eg.org/infographics/</a>
- Project Brochure: <a href="https://www.imeep-eg.org/wp-content/uploads/2021/05/final-accepted-brochure-en-ar-14">https://www.imeep-eg.org/wp-content/uploads/2021/05/final-accepted-brochure-en-ar-14</a>
   EnAr-IMEEP.pdf
- Articles August 2022; <a href="https://www.facebook.com/egygazettee">https://www.facebook.com/egygazettee</a> & October 2022
   <a href="https://www.facebook.com/alahram">https://www.facebook.com/alahram</a>
- 9423\_IMEEP-Gender Brochure
- 9423\_IMEEP\_Gender Baseline Assessment Report\_October2022
- 9423\_Inspirational Women & Their Success Stories
- Energy Projects Across Egypt (English Version); <a href="https://www.youtube.com/watch?v=h5V37ZuUf9U">https://www.youtube.com/watch?v=h5V37ZuUf9U</a>
- Peer to Peer Networking Kick-off Event With SIDPEC June 2022; <a href="https://www.youtube.com/watch?v=CLA5tpM7i2g">https://www.youtube.com/watch?v=CLA5tpM7i2g</a>
- https://www.youtube.com/channel/UCNS7hnr07c33zqMkWV-\_lqg/videos
- IMEEP In Media; <a href="https://www.imeep-eg.org/imeep-in-media/">https://www.imeep-eg.org/imeep-in-media/</a>
- Published testimonial and success story "NatPack" <a href="https://youtu.be/FopktRZaqYs">https://youtu.be/FopktRZaqYs</a>
- Coverage of UNIDO's SIDPEC side event in COP'27 in November 2023 "Sidpec's Decarbonization Strategy and SBTi"
   https://www.linkedin.com/video/live/urn:li:ugcPost:6997127147140050944/?fbclid=lwAR0SBL0Cizgzjl2rveiVzUJ59Cl8pCoePMPloyMgEhoyCbFP5SVCSK3G2vl
- Story on how countries including Egypt face energy crises has rolled out on accelerator <a href="https://www.industrialenergyaccelerator.org/morocco/how-are-industries-in-low-and-middle-income-countries-coping-with-the-energy-crisis/">https://www.industrialenergyaccelerator.org/morocco/how-are-industries-in-low-and-middle-income-countries-coping-with-the-energy-crisis/</a>
- Youth story in coordination with HQ published on UNIDO website https://www2.unido.org/stories/climate-action-young-egyptians-making-more-energy-management

## VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes achieved/observed** with regards to project implementation.

Project management unit (PMU) is collaborating closely with the Ministry of Trade and Industry and its executing arms represented in IMC and ENCPC where their roles mainly include activities related to the implementation of the activities under the following project outcomes:

- Component 1: Legislative and regulatory frameworks for EE motors developed
- Component 2: National awareness campaign on the benefits of EE upgrades to Electric Motor Driven Systems (EMDS)
- Component 3: Technology demonstrations and mechanism to support wide-scale deployment are in place
- Component 4: Support for developing the ESCO market, with a specific focus on EMDS optimization and motor upgrades

Policy component is progressing as planned where they following was developed throughout four working groups and stakeholder's engagement;

- Baseline assessment report,
- Market sizing report
- Policy recommendation

- Rewinder guideline.
- Best practice manual in rewinding 3-phase induction motors (En/Ar)

Awareness raising component is progressing as planned, where the following was completed;

- Project website and social media channels on-going updates
- 3 extra awareness events
- MoIC ENE Video (AR/EN)
- SIDPEC Knowledge Management Video
- Infographic flyer-QR Code
- Field Footage
- 4 News articles published in the reporting period
- Infographics
- Testimonials
- Gender Equity Brochure

Capacity building component is progressing as planned, where the following was completed;

For the reporting period FY23, nine (9) training rounds took place as part of the synergy with SIDPEC peer-to-peer network. The four rounds covered the following trainings;

- Energy Management Systems (EnMS)
- Motors System Optimization (MSO)
- Compressed Air System Optimization (CASO)

Reaching 175 trainees for the reported period with a total of 1,187 trainees during the project life-time. Training material and manuals on MSO, PSO, EnMS and rewinders.

Technical assistance component is progressing as planned as follows;

- Over 200 registration forms
- 100 walkthroughs
- 52 audits completed.
- Qualified consultants from the project are added to IMC list of consultants. 35 MSO, 22 CASO and 32 PSO.

Monitoring and evaluation component;

- Monthly reporting within project team
- MTI quarterly reporting
- Yearly progress report.

Third steering committee meeting was conducted in November 2022 at MTI premises.

#### **Completed Activities:**

- Action plan and guideline for upgrading operations developed.
- Action plan for reintegrating rewinders into the job market developed.
- Policy tools and guidelines to promote EE motors and motor systems.
- Gender Diversity through capacity building with 17.3% females.
- Peer-to-Peer Network; Technological Assessment to 17 companies in the plastic and petroleum sectors.
- 12 MTI Reports, 3 PIRs, 3 GEF Reports, 3 PSC Meetings and 1 MTR Evaluation.

## **Exceeded:**

- Rewinders capacity building 28 out of 20 targeted trainees.
- CASO/MSO/PSO/EnMS 948 (18% females) out of 300 targeted trainees.
- Certified consultants: **56** (17.8% females) out of targeted **50** consultants.
- Peer To Peer Networking: 175 out of 20 targeted trainees.
- Awareness Raising Activities over 704 out of targeted 500 people reached.
- Energy audits and technical assistance 52 out of targeted 40 audits.

| • | Policy Gender Report for industrial sector with recommended action plan. |  |
|---|--|--|

**2.** Please briefly elaborate on any **minor amendments**<sup>6</sup> to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

| Results Framework                             |   |
|---|---|
| Components and Cost                           |   |
| Institutional and Implementation Arrangements |   |
| Financial Management                          |   |
| Implementation Schedule                       | Previously reported in FY22 report;  Project start date was delayed 1.5 years due to Governmental approval and ministerial changes. |
| Executing Entity                              | Previously reported in FY22 report;  IMC with ENCPC are executing few activities under the supervision of UNIDO                     |
| Executing Entity Category                     |   |
| Minor Project Objective Change                |   |
| Safeguards                                    |   |
| Risk Analysis                                 |   |
| Increase of GEF Project Financing Up to 5%    |   |
| Co-Financing                                  |   |
| Location of Project Activities                |   |
| Others  |   |

**3.** Please provide progress related to the **financial implementation** of the project.

The main project expenditures per component from the beginning of the project till  $30^{th}$  June 2023 are as follows:

• Component 1 - Policy component: 314,991.29 USD

Component 2 – Awareness raising and Capacity building: 547,183.99 USD

Component 3 – Technical Assistance: 459,152.93 USD

Component 4 – ESCO: 244,840.36 USD

Component 5 – M&E: 21,857.03 USD

Total fund spent during the reporting period: 258,798.65 USD. Equivalent to 9.41% of total project

<sup>&</sup>lt;sup>6</sup> As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

amount.

Total cummulative: 1,714,661.60 USD equivalent to 62.35% of total project amount.

The information on the financial implementation is given in attached report covering the expenses since execution and remaining available budget until the date of 30 June 2023.

9423 IMEEP SAP - All till 30June23

## IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for <u>the remaining duration of the project</u>, as per last approved project extension. Please expand/modify the table as needed.

Please fill in the below table or make a reference to a file, in case it is submitted as an annex to the report.

| Outputs by Project   | Year 5 | (2023) | Year 6 (2024) | GEF Grant Budget Available<br>(US\$) |
|--|--------|--------|---------------|--------------------------------------|
| Component  | Q3     | Q4     | Q1            |                                      |
| Output 1.1: Recommendations on policy tools and guidelines for the deployment of EE motors developed   |        |        |               | 235,008.71 USD                       |
| Output 1.2: Action plan and guidelines to support rewinding shops and their workers in adapting to the changes in the industrial motors marketplace developed            |        |        |               |                                      |
| Output 1.3: Action plan to<br>support local industries in the<br>development of EE and clean<br>technologies for motor<br>systems<br>developed                           |        |        |               |                                      |
| Output 1.4: ESCO market support policies and tools developed   |        |        |               |                                      |
| Output 2.1: National<br>Awareness campaign on the<br>benefits of EE upgrades to<br>Electric Motor Driven Systems<br>in the industrial sector<br>conducted                |        |        |               | 2,815.98 USD                         |
| Output 2.2: Peer-to-peer platform for information exchange, cooperation and partnerships among seekers and providers of services and information on EE in EMDS developed |        |        |               |                                      |
| Output 2.3. Information gained through the 30 demonstration projects disseminated  |        |        |               |                                      |
| Output 2.4: 300 industrial end users, suppliers, and motor system optimization experts trained   |        |        |               |                                      |

|   |  | ı | ı              |
|---|--|---|----------------|
| Output 2.5: 20 local rewinding and refurbishing workshops capacity improved   |  |   |                |
| Output 3.1: Detailed motor efficiency audits for 40 selected enterprises conducted by UNIDO-trained motor system Optimization experts |  |   | 847.07 USD     |
| Output 3.2: Technical and<br>business advisory services for<br>30 motor systems efficiency<br>projects facilitated                    |  |   |                |
| Output 3.3: System optimization for EMDS implemented and EE motors installed in 30 enterprises  |  |   |                |
| Output 3.4: Public private partnerships with international suppliers developed to accelerate the deployment of EE motors              |  |   |                |
| Output 4.1: Contractual framework for energy performance contracting developed  |  |   | 695,159.67 USD |
| Output 4.2: M&V tools<br>established and made<br>available to ESCOs, M&V<br>providers, and<br>industry                                |  |   |                |
| Output 4.3: <b>5</b> ESCO businesses developed and established  |  |   |                |
| Output 4.4: Revolving fund to offer project-based financing packages for system optimization EPC projects introduced                  |  |   |                |
| Output 5.1.: Mid-term Review (MTR) and Terminal Evaluation (TE) conducted in timely manner  |  |   | 53,142.97 USD  |
| Output 5.2: Project progress<br>monitored, documented, and<br>recommended actions<br>formulated                                       |  |   |                |

## X. Synergies

#### 1. Synergies achieved:

Project team is working closely with the Ministry of Trade and Industry and gathering previous experiences from the national centers of excellence such as IMC and factories previously cooperated through the GEF-4 IEE project, GEF-5 Utilizing Solar Thermal in Industrial Process Heat in the Egyptian Market, to continue the efforts to optimize and maximize their efficiencies and production.

SIDPEC – One of the GEF4 project industrial beneficiaries is continuing to disseminate knowledge through its Peer-to-Peer networking to promote the deployment of energy-efficient motor driven systems in the petrochemical and plastics sectors in Egypt. (Two P2P progress reports are attached to the report)

## 3. Stories to be shared (Optional)

#### XI. GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate.

Web mapping applications such as <a href="OpenStreetMap">OpenStreetMap</a> or <a href="GeoNames">GeoNames</a> use this format. Consider using a conversion tool as needed, such as: <a href="https://coordinates-converter.com">https://coordinates-converter.com</a>

Please see the Geocoding User Guide by clicking here

| Location Name     | Latitude | Longitude | Geo Name ID | Location and Activity Description                                |
|-------------------|----------|-----------|-------------|--|
| Cairo, Egypt      | 30.06263 | 31.24967  | 360630      | Energy Efficient<br>Industrial Motors<br>technical<br>assistance |
| Alexandria, Egypt | 31.20176 | 29.91582  | 361058      | Energy Efficient<br>Industrial Motors<br>technical<br>assistance |

| Please provide any further geo-referenced information and map where the project interventions is aking place as appropriate. |  |  |  |  |
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#### **EXPLANATORY NOTE**

- 1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2022 30 June 2023.
- 2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
- 3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
- 4. **Results-based management**: The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

| Global Envir                      | Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings   |  |  |  |  |  |
|-----------------------------------|---|--|--|--|--|--|
| Highly Satisfactory (HS)          | Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".  |  |  |  |  |  |
| Satisfactory (S)                  | Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings.  |  |  |  |  |  |
| Moderately<br>Satisfactory (MS)   | Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits. |  |  |  |  |  |
| Moderately<br>Unsatisfactory (MU) | Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives.  |  |  |  |  |  |
| Unsatisfactory (U)                | Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits.  |  |  |  |  |  |
| Highly Unsatisfactory (HU)        | The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits.   |  |  |  |  |  |

|                                   | Implementation Progress (IP)  |  |  |  |  |  |  |
|-----------------------------------|---|--|--|--|--|--|--|
| Highly Satisfactory (HS)          | Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice". |  |  |  |  |  |  |
| Satisfactory (S)                  | Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.                               |  |  |  |  |  |  |
| Moderately<br>Satisfactory (MS)   | Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.                                 |  |  |  |  |  |  |
| Moderately<br>Unsatisfactory (MU) | Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action.                      |  |  |  |  |  |  |
| Unsatisfactory (U)                | Implementation of most components in not in substantial compliance with the original/formally revised plan.   |  |  |  |  |  |  |
| Highly Unsatisfactory (HU)        | Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan.   |  |  |  |  |  |  |

| Risk ratings   |   |
|--|---|
| Risk ratings will access the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale: |   |
| High Risk (H)  | There is a probability of greater than <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face high risks.                   |
| Substantial Risk (S)   | There is a probability of between <b>51%</b> and <b>75%</b> that assumptions may fail to hold or materialize, and/or the project may face substantial risks.  |
| Moderate Risk (M)  | There is a probability of between <b>26%</b> and <b>50%</b> that assumptions may fail to hold or materialize, and/or the project may face only moderate risk. |
| Low Risk (L)   | There is a probability of up to <b>25%</b> that assumptions may fail to hold or materialize, and/or the project may face only low risks.                      |