

UNIDO**ONUDI**

**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
ORGANISATION DES NATIONS UNIES POUR LE DEVELOPPEMENT INDUSTRIEL**

Progress Report
(01 July 2018 – 30 June 2019)

Name of country Myanmar

Title1	Improvement of Industrial Energy Efficiency in Myanmar
GEF ID:	5321
UNIDO SAP ID:	130042
GEF Replenishment Cycle:	GEF-5
GEF Focal Area:	Climate Change Mitigation (CCM)
Integrated Approach Pilot (IAP) Programs2:	(select)
GEF Project Size:	Full-Sized Project (FSP)
UNIDO PTC Department:	Department of Energy (ENE)
UNIDO Project Manager:	SHRESTHA, Sanjaya

I. Brief description of the project

I.1 Objective: The objective of project is to promote sustained GHG emissions reduction in the Myanmar industry by improving policy and regulatory frameworks and institutional capacity building for industrial energy efficiency and the implementation of energy management system, based on ISO 50001, EnMS and optimization of energy systems in industry. The project is designed with three substantive components to bridge the gaps and barriers currently in the Myanmar market that are preventing the adoption of energy efficiency measures by industry. The project core indicators are as follow:

Project Core Indicators		Expected at Endorsement/Approval stage
1	Direct electricity and fuel savings over project implementation time.	Direct electricity savings: 26,090 (MWh) Direct fuel savings: 114,482 (MWh)
2	Direct GHG emissions mitigated (tCO2) over project implementation time.	Direct GHG (lifetime) emission savings: 30,242 (tCO2)

I.2 Baseline: The country has been facing acute energy and power shortages, especially during summertime. Therefore, drastic measures have been taken, such as load shedding to deal with these shortages and yet continue to provide power. This creates immense difficulties for industrial operations, particularly for those sub-sectors which require continuous power supply. As a result of this, there is large potential to improve energy efficiency in industry. A report by the Economic Research Institute for ASEAN and East Asia (ERIA) which discusses energy growth scenarios for 2010-2035 estimates that based on a GDP growth of 7% per year in the period 2010-2035, total final energy demand is expected to grow by about 6.6% annually. In industry, energy is expected to grow by 6.1% per year, in line with industrial growth, which has increased rapidly.

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1 As per approved CEO Endorsement document

2 Only for **GEF-6 projects**, if applicable

II. Targeted results and progress to-date

II.1 Describe in tabular form the project's progress made in achieving its 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	Target level	Progress to-date
Component 1 – Improvement of policy and regulatory frameworks, incentive schemes, support programmes			
Outcome 1: Improved policy and regulatory frameworks, incentive schemes, support programmes, energy data and awareness will facilitate sustainable energy efficiency improvement in industry			
Output 1.1.1: Energy efficiency (EE) strategy developed based on experience and lessons learned from other countries;	Status of EE strategy	1 EE strategy developed (for industry)	National Energy Efficiency & Conservation Policy, Strategy and Roadmap for Myanmar was approved by the Government on 4/2/2016.
Output 1.1.2: Incentive schemes, e.g. tax breaks or exemptions, grant and non-grant instruments, etc. and support programmes, e.g. consultancy services, training, etc. developed;	Number of schemes and support programmes proposed or in place	1 set of schemes and support programmes developed	MM ISO 50001:2011 Energy Management Systems (Myanmar Version) – Requirements with guidance for use, has been adopted by Government on 8/7/2018. The Energy Efficiency Training Centre with Compressed Air Demo System was implemented at No (192), Gabaraye Pagoda road, Directorate of Industrial Supervision and Inspection office compound (Yangon Region), Bahan, Yangon.
Output 1.1.3 Energy consumption data by large and medium sized industry establishments collected and managed;	Availability and quantity, quality and reliability of industrial energy data	1 data bank: industrial energy data collected, compiled, analysed and presented in a retrievable format	Database frame (format) was developed with assistance of International expert and transferred to Ministry of Industry.
Output 1.1.4 Awareness raising activities on Nationally Appropriate Mitigation Actions (NAMA) and EE conducted.	Number and type of awareness training programmes carried out targeted at experts, managers and concerned government officials	15 half day awareness training workshops for EE	15 EE awareness workshop have been conducted.
Component 2: Capacity building			
Outcome 2: Strengthened or built capacity of institutions, industries, consultants and equipment suppliers on energy management system, energy system optimization, and EE project financing will assist industries in the implementation of EE improvements			
Output 2.1: Introductory, user and expert training on energy management systems (EnMS), based on ISO 50001, conducted;	Availability of EnMS training material available in English and local language	1 set of EnMS Training material available in English and translated into the local language;	1 set of EnMS training material developed in local language (awareness power point; user training manual and power point)
	Number of managers trained on awareness and implementation of EnMS	300 managers trained on awareness and implementation of EnMS	113 participants attended the EnMS awareness workshop
	Number of professional user/ practitioners trained on implementation of EnMS;	150 practitioners trained on implementation of EnMS	386 participants trained through the EnMS user training
	Number of experts trained on implementation of EnMS	At least 40 Experts trained on implementation of EnMS	39 participants trained through the EnMS Expert training
Output 2.2: User and Expert training on energy system optimizations (SO)	Availability of SO training material available in Myanmar language;	1 set of SO training material available in Myanmar language;	Two sets of training material developed in local language for CASO and SSO respectively (User training manual and power point)

conducted;	Number of users/practitioners trained SO in industry;	30-50 users/practitioners trained SO for each of the selected energy systems in industry;	202 participants trained through CASO user training. 213 participants trained through SSO user training 36 participants trained through FAN user training
	Number of local experts trained on SO in industry;	10-15 local experts trained on SO for each of the selected energy systems in industry;	7 participants trained through SSO expert training. 5 participants are being trained with CASO expert training.
	Number of energy system equipment vendors that received half-day vendor training on SO;	Energy system equipment vendors receive 3 half-day vendor trainings on SO;	Energy system equipment local vendors were part of the participants who attended user training due to the small number in this category.
Output 2.1.3. Training on EE project financing provided to industry and financial institutions.	Number of technical personnel of industry and managers trained on the development of bankable EE project proposals to improve their chances of accessing financing.	100 technical personnel of industry and managers trained on the development of bankable EE project proposals to improve their chances of accessing financing	14 participants from Industry trained through financing training for EE project proposal.
	Number of personnel of financing institutions trained on the appraisal of EE project proposals.	At least 30 personnel of financing institutions trained on the appraisal of EE project proposals	39 participants from financing institution trained through financing training for EE project appraisal.
Component 3 – Demonstrations and Upscaling			
Outcome 3: Demonstrated projects on energy management system, and energy system optimization in selected plants and sub-sectors and widely used case studies result in direct GHG emissions reductions and leverage the interest and belief in investment in IEE projects			
Output 3.1: Energy management systems implemented in 50 industrial establishments; case studies prepared	Number of EnMS projects implemented in selected industrial establishments	15 projects on EnMS implemented in selected industrial establishments. <i>(On 12 December 2018, PSC meeting, number of EnMS projects implemented was revised as 15.)</i>	10 plants are in the process of implementing EnMS.
Output 3.2: At least 20 optimization projects implemented on energy systems: pump, compressed air, fan, and steam, case studies prepared.	Number of SO projects implemented in selected industrial establishments	20 projects on SO implemented in selected industrial establishments	8 plants are in the process of implementing SSO and 6 plants are in the process of implementing CASO.
Component 4 - Monitoring and Evaluation			
Outcome 4: Adequate monitoring and evaluation facilitates smooth and successful project implementation			
Output 4.1: Regular monitoring exercises conducted, PIRs prepared; tracking tools prepared according to GEF requirements			1 st PSC meeting: 30 October 2015, MOI, Nay Pyi Taw 2 nd PSC meeting: 17 November 2016, MOI, Nay Pyi Taw 3 rd PSC meeting: 8 December 2017, Yangon 4 th PSC meeting: 21 June 2018, MOI, Nay Pyi Taw 5 th PSC meeting: 12 December 2018, MOI, Nay Pyi Taw
Output 4.2: Mid-term and final project evaluation conducted.			Mid Term Evaluation mission was carried out during 1 st to 10 th October 2018. The Mid Term Evaluation team met and interviewed stakeholders from: - Ministry of Industry (MOI) - Ministry of Natural Resources and Environmental Conservation (MoNREC) - Ministry of Electricity and Energy (MOEE)

			<ul style="list-style-type: none"> - Ministry of Education (MOE) - Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) - Myanmar Industries Association (MIA) - Myanmar Engineering Society (MES) - Management of partner plants - 20 national expert trainees <p>MTE team presented the findings of MTE mission at the Ministry of Industry on 9 October 2018.</p>
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III. Project Risk Management

III.1 Please indicate the overall risk management: (i) as identified in the CEO Endorsement document, and (ii) progress to-date.

[Describe in tabular form the priority activities undertaken during the reporting period in line with the project document. **Note** that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document.]

	(i) Risks	(i) Risk level	(i) Mitigation measures	(ii) Progress to-date	New defined risk ³
1	Management priorities in the participating public and private sector organizations change over time, before and during project implementation.	Low Risk(L) (select)	To mitigate this risk, extensive consultations with industrial enterprises and associations, including multiple workshops, were undertaken in the PPG phase. To concretize the commitments made by industries, commitment letters from the MOI, Ministry of SME Development and the Myanmar Industries Association (MIA) have been obtained. Furthermore, key stakeholders will be members of the PSC to ensure ongoing participation in project decision-making.	<p>PMU is working closely together with the project main counterpart, Ministry of Industry and informs the MOI EECD focal persons about all activities, events and trainings and provide progress reports on a monthly basis. PMU let EECD staff participate in SO assessments whenever host plant permits us. PMU is cooperating with EECD for other energy efficiency promotion events/meetings/trainings.</p> <p>PMU frequently discuss with the Myanmar Engineering Society (MES), Myanmar Industries Association (MIA) and look for cooperation opportunities, especially in terms of technical assistance to interested plants that want to implement EnMS and/or SO.</p>	<input type="checkbox"/>
2	Lack of effective coordination between the various project partners.	Low Risk(L) (select)	Coordination has been key in the PPG phase of the project, and a similar approach will be taken during project implementation. The PSC will provide a forum for this, as well as ad-hoc working groups for specific sub-sectors or themes that will be established where necessary to ensure ongoing coordination.	<p>Till June 2019, PSC meetings have been conducted 5 times with PSC members from UNIDO, MOI, MoNREC, MOEE, MOE, UMFCCI, MIA and MES. PMU has reported on project progress, barriers, plan for upcoming period and welcome guidance from PSC members. PSC meeting are conducted on a biannual basis.</p> <p>The PMU also conducted ah-hoc meetings with relevant industrial associations, engineering association, plant management, and is offering project's technical assistance, sharing project implementation information, case studies.</p>	<input type="checkbox"/>
3	Companies have doubts on techno-economic viability. Thus, demonstration projects are delayed, limiting the opportunity to disseminate success stories and develop case studies	Modest Risk(M) (select)	Awareness raising and capacity building activities will seek to mitigate this risk by carefully explaining the benefits of such interventions to management where such decision-making is made. The additional support on the development of bankable project proposals will further support enterprises to understand the cost-benefit factors associated with the projects.	<p>Various levels of EnMS and SO trainings have been conducted at the energy efficiency training centre set up by the project and at industrial places. Furthermore, the PMU is delivering in-house energy efficiency trainings at partner plants, where potential EnMS and SO implementation has been identified.</p> <p>PMU continuously meet with potential plants and their management to explain in detail about the project technical assistance, including the offered energy assessment with a professional expert in</p>	<input type="checkbox"/>

³ New risk added in reporting period. Check only if applicable.

			Regarding the specific technologies to be implemented, these have been applied and proven in a number of developed and developing countries. To ensure that the correct and cost-effective technology choices are made by enterprises, detailed assessments of demonstration sites and consultations with international experts will be a key part of the implementation process. This approach will also help to bridge technology transfer barriers faced by Myanmar industries. The demonstration project proponents are anticipated to provide initial case studies results and thus serve as examples for other factories to replicate.	SSO, CASO. Sharing sample assessment reports, successful ASEAN and especially Myanmar case studies, increases the awareness and interest in energy efficiency implementation. PMU is cooperating with MIA, MES to facilitate that their members participate in project activities.	
4	Limited number of participants interested in training and no immediate demand of services for trained experts as the growth of the market for energy efficient technology is slower than expected.	Low Risk(L) (select)	The awareness raising campaign under Component 1 and the case studies to be shared with industry and stakeholders under Component 3 will aim to mitigate this risk. In addition, the project will work to develop a policy framework that supports the development of a market for the national experts of the program, thus providing additional incentives to take part in the project.	The Ministry of Industry is drafting the energy efficiency and conservation law and the draft law has already been released. According to the law, factories above a defined energy usage level will need to assign an energy manager and implement energy efficiency measures. The Ministry of Industry is developing an Energy Conservation (EC) guideline and manual and the PMU is contributing energy efficiency knowledge support. The Myanmar Government has raised the electricity tariff and it raises the awareness of people of higher energy cost in industries. It sends a signal that the Government cannot continue to subsidize electricity, which in turn increases the opportunity for energy efficiency service provider/experts to sell their service.	<input type="checkbox"/>
5	Incentive and financial support system are insufficient.	Modest Risk(M) (select)	The risk of lacking incentive and financial schemes deterring investment in energy efficient measures, will be mitigated through the development of a comprehensive Energy Efficiency Strategy and training for financial institutions on the benefits of such investments. In addition, the project will develop specific grant and non-grant instruments to improve access to financing for participating enterprises. Experiences from other countries will be shared, and results from the demonstration projects will be widely presented.	One financing training for EE project appraisal with participants from financing institution and one financing training for EE project proposal with participants from industries have been conducted at the IEE training centre. PMU is facilitating opportunities for interested plants to take on energy efficiency improvement projects, for which they can apply for a funding programme, jointly implemented by Development partners and the Ministry of Industry.	<input type="checkbox"/>

III.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.

NA

IV Environmental and Social Safeguards (ESS) & Stakeholder Engagement

IV.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 been escalated to Category A or B).

[Notes on new risks:

- If **new risks** have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.
- If these new/additional risks are related to Operational Safeguards # 2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.
- Please refer to the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP) on how to report on E&S issues.]

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
(i) Risks identified in ESMP at time of CEO Endorsement			
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	NA	NA	NA

IV.2 Please provide any feedback submitted by co-financiers, and other Partners/Stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

NA

IV.3 Please provide any **relevant stakeholder consultation documents**:

5321_PSC Meeting Minutes_12 Dec 2018

V Knowledge Management

V.1 Please provide any **relevant knowledge management mechanisms / tools** that the project has generated:

[Examples: *online information exchange/sharing platforms, relevant technical reports, UNIDO Indicator Tracking Tools, GEF Tracking Tools/Core Indicators, project websites, videos, publications, flyers, etc.*
All attachments are to be named as per the GEF required format, i.e.: "**GEFID_Document Title**"]

5321_IEE Myanmar Animation

5312_SSO Assessment Report No 5 Fertilizer Factory March 2019

New project website link: www.ieemyanmar.org

VI Financial report

VI.1 **Financial** implementation of the project:

Please see the attached Project Delivery Report.

VII Work Plan and Budget

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

Outputs by Project Component		Year 2019		Year 2020				Year 2021				GEF Grant Budget Available (US\$)	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Component 1 – Improvement of policy and regulatory frameworks, incentive schemes, support programmes													
Outcome 1: Improved policy and regulatory frameworks, incentive schemes, support programmes, energy data and awareness will facilitate sustainable energy efficiency improvement in industry.													
Output 1.1: Energy efficiency (EE) strategy developed based on experience and lessons learned from other countries.	Continue cooperation with EECD for Energy Efficiency and Conservation Law drafting & onsltation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	363,833.11	
	Continue cooperation with EECD for Energy Manual (EM) and Energy Conservation (EC) guidelines development.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Output 1.2: Incentive schemes, e.g. tax breaks or exemptions, grant and non-grant instruments, etc. and support programmes,	Coordinate with EECD to created "incentive schemes"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Coordinate with EECD to use "EE training centre" in a sustainable manner.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Output 1.3: Energy consumption data by large and medium sized industry establishments collected and managed.	Arrange Database expert mission	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Follow up for database update.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Output 1.4: Awareness raising activities on Nationally Appropriate Mitigation Actions (NAMA) and EE conducted.	Continue "EE awareness event" at potential plants/organization premises.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Component 2 – Capacity building													
Outcome 2: Strengthened or built capacity of institutions, industries, consultants and equipment suppliers on energy management system, energy system optimization, and EE project financing will assist industries in the implementation of EE improvements													
Output 2.1: Introductory, user and expert training on energy management systems (EnMS), based on ISO 50001, conducted	Continue "in-house introductory training" at partner plants for EnMS initiation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	329,519.37	
	Conduct "implementation training" for EnMS EXPERTs.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Follow up activities at partner plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Continue discussion with Yangon Technological University for "Energy Engineering course"	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

	development.										
Output 2.2: User and Expert training on energy system optimizations (SO) conducted.	Conduct CASO focused training with CASO assessment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Conduct SSO focused training with SSO assessment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Continue on "in-house introductory training" at partner plants for SSO, CASO initiation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Follow up activities at partner plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 2.3: Training on EE project financing provided to industry (IND) and financial institutions (FI).	Revision of financing training material (FI and IND courses, should be combined)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Conduct (FI & IND financing) trainings at their premises.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component 3 – Demonstrations and upscaling											
Outcome 3: Demonstrated projects on energy management system, and energy system optimization in selected plants and sub-sectors and widely used case studies result in direct GHG emissions reductions and leverage the interest and belief in investment in IEE projects											
Output 3.1: Energy management systems implemented in 15 industrial establishments; case studies prepared.	Continue to assign National Experts (NEs) to partner plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Engage with new potential plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Follow up activities to partner plants and assist them.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Create "Project Documentary Video"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Re-Create "Project Promotion material"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Output 3.2: At least 20 optimization projects implemented on energy systems: pump, compressed air, fan, and steam, case studies prepared.	Continue to assign National Experts (NEs) to partner plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Engage with new potential plants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Follow up activity at assessed plants and assist them.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component 4 - Monitoring and Evaluation											
Outcome 4: Adequate monitoring and evaluation facilitates smooth and successful project implementation											
Output 4.1 Monitoring and Evaluation	Prepare Quarterly report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Prepare PSC meeting,	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Prepare PIR, AMR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Prepare TR, TE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Component 5 - Project Management Cost											

553,933.25

116,203.20

	15,864.31
	TOTAL: 1,379,353.24

VIII Synergies

VIII.1 Synergies achieved:

[Describe potential synergies arising out of closer integration of the service modules within the project or cooperation with (external) multilateral and bilateral projects/programmes.]

The Energy Efficiency and Conservation Department (EECD), under Ministry of Industry (MOI) is the only mandated department to deal with energy efficiency and is currently developing an *Energy Efficiency and Conservation Law*. When the Law is enacted, Industries that are consuming more than a defined energy consumption level, need to appoint an *Energy Manager*, report energy consumption data, and submit an energy efficiency improvement plan to the Government. The Project is supporting the EECD on that issue by providing energy efficiency knowledge.

The Energy Efficiency Training centre has been jointly set up by the Project and MOI as the main training centre for various energy efficiency trainings and will contribute *Energy Managers* needed by the industries.

The increase in the electricity tariff raises the awareness of the industry of the importance of energy efficiency and MES and MIA have shown more interest to cooperate. There have been more frequent enquires on the project technical assistance from developing organizations whom are interested in the Project's experiences on energy efficiency implementation.