



Project Implementation Report

(1 July 2022 – 30 June 2023)

Project Title:	Industrial Energy Efficiency Improvement in South Africa through Mainstreaming the Introduction of Energy Management Systems and Energy Systems Optimization
GEF ID:	5379
UNIDO SAP ID:	120487
GEF Replenishment Cycle:	GEF-5
Country(ies):	South Africa
Region:	AFR
GEF Focal Area:	ССМ
Integrated Approach Pilot (IAP) Programs ¹ :	NA
Stand-alone / Child Project:	Stand-alone
Implementing Department/Division:	DSE/ESD
Co-Implementing Agency:	NA
Executing Agency(ies):	Department of Trade and Industry (dti), now [dtic] Department of Energy (DoE), [now DMRE] National Cleaner Production Centre of South Africa (NCPC-SA) The South African National Energy Development Institute (SANEDI)
Other Project Partners:	Department of Forestry and Fisheries of Environment (DFFE)
Project Type:	FSP
Project Duration:	48
Extension(s):	3
GEF Project Financing:	5,776,484
Agency Fee:	548,766
Co-financing Amount:	38,860,000.00
Date of CEO Endorsement/Approval:	10/14/2015
UNIDO Approval Date:	11/20/2015
Actual Implementation Start:	12/01/2015
Cumulative disbursement as of 30 June 2023:	5,690.489.85
Mid-term Review Date (MTR):	02/26/2020
Original Project Completion Date:	12/01/2019

¹ Only for **GEF-6 projects**, if applicable

Current SAP Completion Date:	09/30/2022
Expected Project Completion Date:	09/30/2022
Expected Terminal Evaluation Date (TE):	08/30/2022
Expected Financial Closure Date:	09/30/2023
UNIDO Project Manager ² :	Rana Ghoneim

I. Brief description of project and status overview

Project Objective

To accelerate and expand the introduction of Energy Management Systems (EnMS), Industrial Energy Systems Optimization (ESO), and the Energy Management Standard ISO 50001 Series within the South African industrial (and selected commercial) context in order to realize increased investment in industrial energy efficiency (IEE) through the wide- scale adoption of the two methodologies and ISO 50001 under

- (i) enhanced institutional frameworks and regulatory environments,
- (ii) technical and implementation assistance to industry and
- (iii) multi-level engineer, technician and operator capacity building programmes.

South Africa can be classified as a relatively energy intensive economy ranking 7th in the world in 2013 in terms of economic energy intensity. The economy is still heavily structured around, and dominated by energy intensive and inefficient large-scale operations, such as mining and minerals processing industries. At the end of 2014, a number of factors converged to push South Africa into a period of power shortages. These factors included delays to bringing new generating capacity online, a falling level of thermal efficiency within the aging power station fleet and the instigation of much needed maintenance of these power stations. These factors, combined with the fact that consumers still use electricity as if it is not a scarce resource, are resulting in the electrical system becoming extremely constrained. Major load shedding started again in late 2014 and continues to be implemented on a rotating basis throughout the country and between districts as the reserve margin drops below zero. This situation has threatened industrial production, GDP levels, and social cohesion through potential job losses. Industrial energy performance has improved over the past years to some degree, especially in larger enterprises, as a result of the 2008/09 national power constraint and ensuing increases in energy and electricity prices, new legislative measures, financial incentive schemes and project initiatives. However, Government and industry technical capacity for IEE policymaking and implementation, and industry's ability to take on new EE methodologies remains significantly constrained, with this being particularly pressing within the SME sector. The Project builds on the 2010-2016 UNIDO 'South Africa Industrial Energy Efficiency Improvement Project (SA IEE Project)' to further assist the Government of South Africa to capacitate the industrial and engineering sectors in the methodologies of EnMS and ESO and ensure long-term and sustainable improvements in energy performance within the industrial sector. The project is structured in five technical components, plus a monitoring and evaluation component.

Proje	ect Core Indicators	Expected at Endorsement/Approval stage	
6	Incremental direct GHG emission reduction (tons of CO ₂ eq)	Cumulative direct emission reduction of 3,280,000 tCO ₂ e	
11	Incremental indirect GHG emission reductions (tons of CO ₂ eq)	Indirect emission reduction of 25,233,800 tCO ₂ eq from 2020 to 2029	
x	Reduction of energy consumption (GJ or MWh) in targeted industrial and commercial sector	Implementation of EnMS and ESO improvements in 150 enterprises lead to lifetime fuel and energy savings of 32,422,400 GJ Primary Energy.	

² Person responsible for report content

Baseline

Industrial energy performance has improved over the past years to some degree, especially in larger enterprises, as a result of the 2008/09 national power constraint and ensuing increases in energy and electricity prices, new legislative measures, financial incentive schemes and project initiatives. However, Government technical capacity for IEE policy-making and implementation, and industry's ability to take on new EE methodologies remains significantly constrained, with this being particularly pressing within the SME sector.

Legal Framework for Industrial Energy Efficiency

The South African 'National Energy Act' No. 34 of 2008, signed by the President of South Africa on 17 November 2008, is the legal instrument by which the supply and consumption of energy is governed in South Africa. The Act aims to ensure that diverse energy resources are available, in sustainable quantities and affordable prices, to the South African economy in support of economic growth and poverty alleviation, taking into account environmental management requirements. The Act provides the DoE with the legal mandate and obligation, among other conditions, to: collect, collate and analyze energy data and information, and develop a gazetted 'Integrated Energy Plan'. This plan is reviewed on an annual basis and takes into account security of supply, universal access to energy, international commitments, the environment and the contribution of energy supply to economic development.

The Act also has the objective of facilitating the effective management of energy demand and its conservation including EE where industry is concerned. While the Act grants considerable powers to the DoE (and hence the Government) to develop EE regulations and enforce them, the Act itself does not contain the necessary follow-up polices, secondary legislation or regulations to force, promote or incentivize changes in behaviour within industry or the wider economy. Many of these follow-up measures have yet to be developed or effectively enforced, and therefore, considerable scope exists for initiatives to assist the Government in developing the tools that will foster greater achievement of policy and regulatory objectives.

The South African Carbon Tax has been set in place by the government to fulfil the Paris Agreement. Essentially, every industrial company has to pay carbon tax in South Africa. Officially, the carbon tax is set to R120 / ton of CO2-equivalent. However, there is a transitional period until the tax is set to full force in 2022. During that transitional period, there is a tax-free allowance of 70%. During phase 1 of the South African Carbon Tax, there are a lot of ways for businesses to pay less. However, this will change very soon.

The purpose of the National Greenhouse Gas Emissions Reporting Regulations is to introduce a single national reporting system for the transparent reporting of greenhouse gas emissions, which will be used to maintain a National Greenhouse Gas Inventory, allow South Africa to meet its UNFCCC reporting obligations and to inform the formulation and implementation of legislation and policy. The emission sources and data providers who are covered by the Regulations are set out in Annexure 1 and Regulation 4. The sectors covered include energy, transport, industry, agriculture and forestry. The Regulations also set out the reporting requirements, calculation methodology, verification procedure (to be carried out by the National Inventory Unit) and penalties (which include fines and imprisonment).

IRP 2019 provides for uncapped procurement of Distributed Generation up to and including 2022, and thereafter, procurement would be capped at 500MW a year up to 2030. Distributed Generation is defined in IRP 2019 to mean "small-scale technologies to produce electricity close to the end users of power".

South Africa Industrial Energy Efficiency Improvement Project (SA IEE Project)

The GEF Project will build on the work of the SA IEE Project, which was implemented by UNIDO and funded by the South African Government (UK Department for International Development (DFID) and Swiss State Secretariat for Economic Affairs (SECO). The South African National Cleaner Production Centre (NCPC-SA) is the national host of the project with the dti and the DoE being the national implementation partners. The project began implementation in April 2010 and was scheduled for completion at the end of December 2015. The overall objective/development goal of SA IEE Project was to increase IEE in South Africa in order to contribute to national efforts to improve energy security and electricity supply continuity while seeking that GDP growth is not constrained by energy shortages and rising prices. The strategy for achieving this

goal was the introduction, piloting and promotion of EnMS and ESO as well as the ISO50001 Energy Management Standard. Thus, the SA IEE Project aimed to contribute to the sustainable transformation of energy usage practices in South African industry.

The SA IEE Project had four main components where Component One focused on IEE policy development; Component Two focused on energy management standards (including supporting the Government and relevant standards bodies/institutions with the introduction of the main Energy Management Standard ISO 50001); Component Three focused on training and developing a series of EnMS and ESO training packages offered to industry and the industrial consulting sector. Under the project's fourth component a programme of EnMS and ESO industrial piloting (was established with this being combined with an awareness raising and project communications programme, involving a process of initial sector awareness creation and a company outreach and recruitment initiative. Originally, the SA IEE Project focused on five highly energy intensive industry sectors that had significant energy consumption reduction potentials: agro-processing; chemicals and liquid fuels; metals processing and engineering; automobile manufacturing; and mining and minerals. However, the SA IEE Project broadened its reach in Phase II to include other industrial sub-sectors (clothing and textiles, non-metallic minerals, food processing, glass, paper and pulp, construction materials and printing sub-sector), as well as commercial and even public buildings/institutions sub-sectors where they presented significant energy consumption.

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 FY22.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management³, 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. FY21, in the last column.

Overall Ratings ⁴	FY23	FY22			
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	Satisfactory (S)	Satisfactory (S)			
Project <u>achieved most</u> of its <u>maje</u> only minor shortcomings, in the I	Project <u>achieved most</u> of its <u>major</u> global environmental objectives, and yielded satisfactory global environmental benefits, with only minor shortcomings, in the last financial year. Therefore, there rating has not changed.				
Implementation Progress (IP) Rating	Moderately Satisfactory (MS)	Satisfactory (S)			
The ongoing TE indicated that Im plan with some components requ	plementation of <u>some</u> components is in substan uiring remedial action.	tial compliance with the original/formally revised			
Overall Risk Rating Low Risk (L) Low Risk (L)		Low Risk (L)			
The risks are low and have not changed from the previous year.					

³ 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

⁴ 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

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.

Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
Component 1 – Data Qua	ality Improvement to Faci	litate Data Rich Industrial Energy	Efficiency and Energy Management Policy Im	plementation
Component 1.1 Energy of challenges of EnMS and	consumption/performanc	e mapped with the savings potent 06 methodologies within selected	ial determination, against potential penetration industrial and commercial sectors	n and implementation
Strengthened energy planning (and related energy and GHG emissions reduction target setting) through improved data and reporting on energy consumption and potential savings under EnMS and ESO	Gap analysis and assessment of necessary capacity assistance to strengthen data collection, quality processing and interpretation analysis by the DMRE and SANEDI.	Gap Analysis and assessment of DMRE/SANEDI	Workshops between parties to understanding data collection gaps. Concluded this activity.	Gap Analysis, Technical capacity Enhancement and Alignment on Data Collection Processes, Tools and Methodologies are developed. These activities are completed by 30 July 2021.
Output 1.2:	Technical capacity enhancement programme to strengthen data mechanisms and data processing practices within the DMRE and SANEDI	Reviewing of existing tools, instruments, methodologies and data collection and processing practices within DMRE and SANEDI.	Concluded this activity.	Gap Analysis, Technical capacity Enhancement and Alignment on Data Collection Processes, Tools and Methodologies are developed. These activities are completed by 30 July 2021.
Output 1.3:	Assistance to inter- governmental initiatives to align data requirements, surveying methods and industrial enterprise outreach methods, as well as supporting tools to assist in the setting of targets & performance indicator establishment, in line with ISO 50006.	Inter-governmental initiatives to align data requirements.	Report under review and workshop was conducted by 31 st of July 2021. Concluded this activity.	Gap Analysis, Technical capacity Enhancement and Alignment on Data Collection Processes, Tools and Methodologies are developed. These activities are completed by 30 July 2021.
Output 1.4:	Baseline assessment in selected industrial	Data collection to develop energy footprint, energy savings potential	Activity 1.1.4. was broken down into three (3) sub-activities, namely, (i) " A Study to Determine	An RFQ for each of these sub-activities was released

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
	sectors of energy use dynamics, energy consumption and energy savings potential (& associated GHG emissions reductions), EnMS & ESO against potential penetration rate scenarios & implementation challenges for implementation in non- mapped industrial sectors.	and determine energy use dynamics, implementation challenges for Pulp & Paper and Automotive. (Baseline Assessment) Pulp & Paper Baseline Assessment Automotive Baseline Assessment including workshop and publication	the Energy Footprint and Savings Potential for the South African Pulp & Paper and Automotive Subsectors", (ii) " Database Design Expert to Conduct Data Cleaning and Functionality Upgrade of the 12L Tax Incentive Web- Database System and (iii) " Technical Expert for the Development of a Standard Operating Procedure Manual".	to the panel and Catalyst and Promethium were appointed for the respective aub-activities. The sub activity conducted by Catalyst commenced on the 17 th December 2021 and concluded on the 29 th of April 2022, the sub activities conducted by Promethium commenced on the 1 st of November and 1 st of December 2021 and both sub-activities concluded on the 31st of March 2022 .
		Review and development of a practical guideline for the application of a simplified Measurement and Verification (M&V) of energy savings for small and medium size 12L Energy Efficiency Tax Incentives Projects in line with the SANS50010:2011 M&V Standard with related stakeholder engagement sessions	An accelerated programme to drive the uptake of 12L Energy Efficiency Tax Incentive. A guideline to support the implementation of energy efficiency projects by small and medium size enterprises. Capacity building initiatives for unemployed youth and women in collaboration with accredited SANAS M&V Bodies, National Business Initiative (NBI) and other relevant entities	This is one of the activities being executed within the 3 months extension, and is scheduled for completion by 30 September 2022.
Output 1.5:	Technical assistance (in the form of expert review & focus/ stakeholder consultation groups), provided for planned periodic reviews & updates of energy intensity reduction & energy management targets.	Data reference group created between DMRE/SANEDI and DFFE. The data reference group is utilized as peer review group and facilitates review of the energy intensity targets study.	Hold two more joint sessions between September and December 2021.	Data Reference Group has already been established with key project stakeholders such as SANEDI, DMRE and DFFE, from Terms of Reference. SANEDI to act as secretariat however, there may be a need to review the Terms of Reference. This activity is now part of the operational requirements at SANEDI

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
				and will be carried out annually.
Output 1.6:	Technical assistance (in the form of expert review and focus/stakeholder consultation groups) to periodically and independently review and update GHG calculations and targets of the NCCRS, (DEFF).	Support DMRE/SANEDI with the GHG Calculation and targets	There are other active activities within the DMRE that complement this activity.	This could not be implemented due to time constraints and the nature of the activity as it is only logical to form a data reference group towards the end of the project implementation to ensure sustainability and longevity of facilitating a data-rich industrial energy efficiency and energy management policy implementation.
1.2	Country Specific EnMS a	and ESO best practice technology	and process benchmarks established in line	with the NEES and NEEAP
Output 1.2.1:	EnMS and ESO technology and process best practice benchmarks, using country specific examples (also considering international best practice where appropriate), under the Industry and Mining Action Plan contained within the NEES.	Study on the technology and best practice benchmarks using country specific examples. Interactive sessions, workshop and pulications on EnMS and ESO technology and process best practice benchmarks using country-specific examples and in alignment to the NEES	Work in progress as this activity requires input from other ongoing activities on the project.	This one of the activities being executed within the 3 months extension, and is scheduled for completion by 30 August 2022.
Component 2 – Strength	ening Policy Implementa	tion and Support Frameworks for	EnMS, ESO and Energy Management Standar	ds
Component 2.1: Targeted technical assistance and capacity building to enhance and implement IEE policies, incentives and regulatory frameworks supporting EnMS and ESO uptake and strengthening the coordination of associated activities across government agencies				
Output 2.1.1: Enhanced promotion of investment in IEE through strengthened policy and regulatory frameworks and support to increase the uptake of	Analysis of existing South African national governance structures and legislative instruments to determine relevance to IEE implementation for	Technical expert already appointed to undertake the activities. Activity 2.1.1 is merged with activity 2.1.2 and 2.1.3	An RFQ addressing Activities 2.1.1. + 2.1.2. + 2.1.4. was released to the open market, Accruetech was appointed in August 2021 to conduct an Analysis on the Legislative Instruments and Governance Structures which are relevant to South African Industrial Energy Efficiency	. These activities were completed on the 31 December 2021

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
energy management standards	enhanced implementation effectiveness.			
Output 2.1.2:	Institutional needs assessment to determine the capacity gaps within the Government (DMRE, DEFF, DSI, dtic, National Treasury, SABS, SANEDI, NCPC-SA), in regard to modifying and strengthening the implementation policy and regulation related to IEE. The needs assessment will also include a review of industry related gender issues and how to actively promote increased participation of women in IEE.	Technical appointed to undertake the activity (merged activity).	An RFQ addressing Activities 2.1.1. + 2.1.2. + 2.1.4. was released to the open market, Accruetech was appointed in August 2021 to conduct an Analysis on the Legislative Instruments and Governance Structures which are relevant to South African Industrial Energy Efficiency.	These activities were completed on the 31 December 2021
Output 2.1.4:	IEE Government policy consultative dialogue workshop series (two per year and eight in total), with the corresponding establishment of a network group between Government departments/bodies (DMRE, DEFF, DSI, dtic, SANEDI, NCPC- SA), as well as other relevant stakeholders, to improve IEE policy and regulatory implementation and to link EnMS and ESO implementation measures employed by enterprises under incentive programmes and within offsetting under the possible	Workshop to be facilitated following the activities regarding institutional needs	Use the data reference group to facilitate the execution of this activity.	An RFQ addressing Activities 2.1.1. + 2.1.2. + 2.1.4. was released to the open market, Accruetech was appointed in August 2021 to conduct an Analysis on the Legislative Instruments and Governance Structures which are relevant to South African Industrial Energy Efficiency. These activities were completed activities on the 31 December 2021

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
	national Desired Emission Reduction Outcomes (DEROs) & Carbon Tax scenarios.			
Output 2.1.5.	Technical assistance provided to Government departments to prepare five additional industrial enterprise guidelines and technical support packages (one per selected sector) proposed and to be promulgated industry policy/regulation in line with Government IEE regulatory schemes, e.g., Energy Management Planning and their contained energy intensity reduction targets. This will include the development of enhanced policy tools that will promote female roles in IEE.	 Prepared guideline documents for the following sub-sectors, to inform future EE policy development: 1. Commercial Buildings sub- sector 2. Clothing and Textile sub- sector. (Previously Automotive sub-sector) 3. Mineral Beneficiation sub- sector 4. Cement Sub-sector. (Previously Agro-Processing sub-sector) 5. Best Practice Guideline on Energy Use in the Metal Casting Foundries and Non- Ferrous Metals sub-sector 	Nominated sectors reviewed and reprioritized after discussions with SANEDI and dtic, to prevent duplication of efforts. TORs developed and finalized for first four sector guides listed in the adjacent column. Procurement concluded and work commenced. Completion scheduled for completion by end July 2022. CSIR Energy Centre awarded contract to develop Best Practice Energy Use Guideline for the Metal Casting Foundries and non-ferrous metals sub-sector. Technical proposal approved and work commenced.	Work delayed due to procurement moratorium imposed by National Treasury between February and end of March 2022. The four listed guides (Comm Blds, Clothing & Textile, Metals and Cement anticipated completion is 30 August 2022. Regarding the metals guide there were delays due to data gaps and availability. The anticipated completion is 30 September 2022.
Component 2.2: Assistan Bodies to promote and r (ISO 50006)	nce to operationalize SAI nainstream Energy Audit	NS/ISO 50001 with additional advis (ISO 50002); Conformity Assessm	ory support, and recommended actions for G ent (ISO 50003); and Energy Baselines and Po	overnment and Standards erformance Indicators
Output 2.2.4.	Technical assistance provided in the form of three training seminars to potential SANS 50010 auditing and certification bodies, including SANAS accreditation support and preparation.	Deliver Online EnPMI Training workshop targeting GP. Deliver Online Training Seminar targeting the WC/GP.	Sent invitation to SANAS and 12L accreditation practitioners to attend the training seminars on SANS 50010.	Two training workshops hosted for EnPMI and EnMS End User courses. Attendees included, DMRE, DFFE, dtic, SANAS and SANEDI representatives. Attendance of first two training workshops did not warrant a dedicated third workshop. NCPC-SA

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23	
				extended regular invitations to certification body representatives to consult the NCPC-SA training calendar for future course offerings.	
				Target achieved.	
Component 3.0: Main	streaming EnMS and E	SO Training and Skills Develo	pment Programmes		
Component 3.1. Exp professionally recog materials	anded Engineer-Level nized ESO topics, grad	EnMS and ESO Industry Capac duate mentorship and SME En	city Building courses developed and deli MS Implementation Guide resource pack	vered including new ages and learning	
Expansion of the EnMS and ESO capacity building programme with the inclusion of new ESO topics and multi-level enterprise trainee courses under parallel NQF institutionalization and market capacitation enhances the capacity of the South African industrial sector to implement EnMS and ESO and achieve energy savings	New ESO courses prepared, presented and taken through the SAIMechE CPD accreditation process.	CPD Accreditation for the PQ, Biogas and M&V training courses will be applied once new material has been completed. CPD Accreditation for the Chillers and Refrigeration training courses will be applied once new material has been completed.	27 Courses awarded CPD Accreditation by SAIMECHE, including new courses: CRSO expert, Biogas End User and Expert, Power Quality End User and EnPMI	Target Achieved	
Component 3.2	EnMS and ESO Technician-Level Courses developed and delivered with supporting bridging courses for enterprise staff as well as development of Vocational EnMS and ESO Training Course Modules and supporting materials				
Expansion of the EnMS and ESO capacity building programme with the inclusion of	Development and delivery of EnMS training programmes for South African industry personnel at the technician/plant operator	This training is a requirement in all EnMS implementations and ESO assessments.	Beneficiary plant operators are trained after energy/ESO assessments and after successful EnMS implementations. Course material adapted by the NCPC-SA and consultants.	Target Achieved	

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
new ESO topics and multi-level enterprise trainee courses under parallel NQF institutionalization and market capacitation enhances the capacity of the South African industrial sector to implement EnMS and ESO and achieve energy savings	staff level. Including consideration of gender dimensions and forming network groups with women's groups to actively promote the participation of women.			
3.2.2.	Development and delivery of ESO training programmes for 314 (balance) South African industry personnel at the technician / plant operator staff level – including bridging assistance for plant- based training courses. Including consideration of gender dimensions and forming network groups with women's groups to actively promote the participation of women	This training is now a requirement in all ESO assessments and will be pursued aggressively, and assessment awareness training.	UNIDO developed gender focussed training module aimed at promoting gender equity. The content for this training is incorporated in every single NCPC-SA training delivery. The team had a strong focus on this activity in quarter 2. Over 314 plant operator level staff have been trained.	Target achieved.
3.2.3	Development and embedding of different Technician / Operator level EnMS and ESO course modules within vocational programmes offered by selected TVET institutions including the EnMS and ESO methodology capacity building of their lecturing staff.	Vaal University of Technology - Share EnMS and ESO 2-Day End User training materials and lecturers to deliver our EnMS and ESO post graduate courses. Cape Peninsula University of Technology - Share EnMS and ESO 2-Day End User training materials and lecturers to deliver our EnMS and ESO post graduate	Delivered in Q2 Delivered in Q3	The University of Johannesburg was accredited for the Energy Audit Technician qualification. All NCPC-SA qualified expert trainers are deemed qualified to be contracted as trainers in the delivery of this qualification. 5 Modules from this qualification were used to register a new qualification

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
		courses. Tshwane University of Technology Share EnMS and ESO 2-Day End User training materials and lecturers to deliver our EnMS and ESO post graduate courses	Delivered in Q4	titled Energy Performance Certification Practitioner certificate at NQF level 5. The NCPC-SA extended invitations to train lecturing staff of Ekurhuleni East College and the College of Cape Town to become qualified as trainers for the EPC qualification.
				Three hundred TVET college graduates are currently being trained by UJ as Energy Performance Certification practitioners.
				The Energy Audit Technician qualification, registered on the National Qualification Framework (NQF) at level 6 includes the EnMS and ESO methodology reflected by UNIDO/NCPC-SA training courses. The NCPC-SA is currently supporting Mafiri Trading in their accreditation application to the QCTO to offer this qualification. They will also be supported by providing training opportunities to their lecturing staff.
				All subsequent applications by TVET colleges and Universities of Technologies, to be accredited for this qualification, will be supported in a similar fashion.
Component 3.3	Institutionalized and NQ Providers combined with Green Industry Professio	F Compliant EnMS and ESO trainin h targeted capacity building and m onal Association	ng course materials developed and provided a arket development initiatives as well as assis	Target achieved. to commercial Training stance to establish a

	Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
	Output 3.3.7	Support gender inclusive marketing and communication activities, aimed at growing the membership interest and demand for the professional body through the activities of Component 5.0.	Ongoing support through communications work. The responsibility and budget for this resides with the UNIDO Pretoria Office.	The final steps to register the Professional body now needs to be taken by duly authorized external industry representatives. The NCPC-SA remains committed to continue providing expertise and other support.	Target achieved
	Component 4.0:	Investment Promotion and incentives for ind	s financial mechanisms		
Component 4.1 EnMS and ESO demonstration program of 150 indi and selected commercial sectors				idual enterprises (50 large, 100 SMEs) ac	ross multiple industrial
	Output 4.1.4 Access to finance increased with the energy and cost saving benefits of EnMS and ESO proven within the South African industrial context, with industry actively and progressively pursuing enhanced IEE	Post EnMS and ESO implementation technical support through twice- yearly on-site oversight / check-up sessions for EnMS implementation (with additional support sessions for SMEs as required) and ESO implementation follow- up advisory measures.	Conduct 12 (@R25k) detailed follow-up evaluations of all sites previously assessed and where implementation projects were supported, using the follow-up template developed. Consumption data monitoring and baseline modelling studies (5 @ R60k)	Concluded 4 energy consumption baseline modelling studies (Tronox, Coega Development Corp., Meze Foods, First National Battery - 3 sites. EnMS Implementation facilitated at 6 sites (Tiger Brands Tastic Rice, First Nat. Battery, Tronox, Meze Foods, Bridgestone & Coega Dev Corp). Technical support provided to 3 sites Hulamin, Mpact & CSIR Rosebank). Energy audits undertaken at 13 BudChem Group sites.	Target Achieved
-	Output 4.1.6	Development of enterprise EnMS and ESO demonstration project case studies and associated research/position papers.	Identification of 2 relevant studies (@ \$5k each) to showcase and provide lesson on EnMS and ESO challenges and successes. Two Waste Heat Recovery (WHR) studies at Tronox Mining and Hulamin - \$13k	EnMS Case study developed for Bridgestone and Mintek. Completed Waste Heat Recovery Studies for Hulamin and Tronox.	Achieved Target Achieved Target

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
		Identification of 2 relevant studies (@ \$5k each) to showcase and provide lesson on EnMS and ESO challenges and successes.	ISO 50001 Gap Analysis study completed for Festive Chicken and Meze Foods.	Achieved Target
		Demand Response study - \$20k. Flownex License - \$20k	SA Energy Demand response study completed. Flownex Licence jointly procured with CSIR Energy Centre	
		Development of CWSAT Tool - \$20k	Redeveloped Chilled Water System Analysis Tool for chiller and refrigeration systems optimization training in SA.	Exceeded Target
			Additional Chilled Water System Excel based Assessment scoping tool developed to supplement assessment technical tools.	
		Development of Study of secondary savings of 12L Projects and global benchmarking analysis - \$60k	Insufficient data available to develop meaningful benchmarking from current 12L applications. SANEDI unable to provide requested data. Resources were reallocated to provide input and support to World Bank "Development of Sustainable Financing Mechanisms for Demand-Side Energy Efficiency Market Transformation in South Africa" study and concept note development to establish a Project Preparation facility in collaboration with SANEDI	Work refocussed to support inputs and commentary on 4.3.1.
		CASO Algorithm Software Control Tool - \$23k	CASO control guide in progress. Completion expected September 2022	Completion expected September 2022
		Development of Financial Analysis Tool - \$20k.	Financial Analysis tool not able to be completed within project timeframe due to poor response to call for proposals and unable to agree on budget.	
Component 4.2	Support to industrial e other assistance pro Government financial	enterprises through a financial ogrammes to assist access incentive programmes	proposal advice/match-making support i to, and understanding of, IEE private	nechanism/service and sector financing and
Output 4.2.1	Establishment of IEE financial proposal advice and match making support mechanism within NBi with associated technical assistance and human capacity support	3 Financial advices / Matchmaking proposals in any of the following formats: 1. RECP Finance Workshop facilitated 2. Investment grade assessment report	Two RECP Sustainable Finance Workshops have taken place within the GP and WC regions, which were very successful and well attended. 14 requests for linkage to financing mechanisms were unearthed which the IEEP PM Team have been following-up on. One Access to RECP Finance workshop took	Target achieved.

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
		 Financial analysis of assessment recommendations, as specified. 	place in KZN.	
Output 4.2.4	Development of initial EnMS and/or ESO proposals drawn for the demonstration programmes under Outputs 4.1.2 and 4.1.3. With up to 15 proposals for the large companies and up to 50 for the SMEs being developed and presented for consideration.	Contract the service of a banking / financing specialist (Uzenzela, SunRep,) for 30 financial match making proposals (business plans / applications for finance) to SMEs over the remaining term of the project. (15 x R30k)	All the roll-over assessments from Work package P2 and future IEE assessments will capture financial metrics as outlined in the IEE Technical Assistance Financial Matchmaking Template.	All financial linkages realized in the Finance workshops have been documented. This included generation of 16 Business case investment proposals
Component 4.3	Targeted technical su evolve funding med implementing EnMS a	upport to FIs/IFIs and Governr chanisms, incentives and fi and ESO measures	nent providers of IEE finance to develo nancial packages/credit streams for	o, enhance access and industrial enterprises
Output 4.3.1	Analysis of national and international best practice of funding mechanisms, incentives and financial packages/credit streams IEE projects.	Contract service provider.	IEE PMs served on the PSC of the project: "Development of Sustainable Financing Mechanisms for Demand-Side Energy Efficiency Market Transformation in South Africa" World Bank Project with SANEDI. Project developed Concept note for Project Preparation Facility earmarking NCPC as possible host institution.	Target achieved.
Output 4.3.2	Assistance in the analysis of Government financial incentives for IEE including: MCEP and the 12L (and 12l) tax incentive, making recommendations for improvement and evolution (in line with technical assistance provided under Activity 2.1.6 to strengthen incentives relative to EnMS and ESO).	Contract service provider.		Covered in 4.3.1

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
Output 4.3.3	Guidelines for financial risk evaluation of EnMS and ESO IEE projects.	Contract an EnMS/ESO Expert to develop a guideline for financial risk evaluation of EnMS/ESO Projects.	Cova Advisory & Associates appointed, and work commenced on development of Guidelines for Financial Risk Evaluation of EnMS and ESO IEE projects. Expected delivery anticipated end July 2022.	Cova Advisory & Associates appointed, and work commenced on development of Guidelines for Financial Risk Evaluation of EnMS and ESO IEE projects. Expected delivery anticipated 30 July 2022.
Output 4.3.4	Capacity building seminars for local FIs to better understand benefits and risks of investment in EnMS and ESO IEE projects (using Guidelines for financial evaluation of IEE projects developed in activity 4.2.3) with an emphasis on promoting the training of female banking staff.	2x Training workshops for Bank Portfolio Managers.	Developed the training material. But unable to secure training sessions. Despite that, several banking staff and portfolio managers have already attended and gained significant benefit from the Sustainable Finance workshops and information sessions presented to Standard Bank Portfolio Management and the Banking Association of SA (BASA) Teams.	Response from Finance sector on skills needs was poor despite online survey issue to targeted contacts. To mitigate the issue of not achieving the target, this activity will be picked up through the NCPC-SA RECP finance programme.
Output 4.3.5	Targeted technical support and training to local FIs to develop capacity of staff on assessing eligibility for finance and risk sharing of IEE projects. This activity will include: three introductory workshops for 60 bank staff; two expert training workshops for 30 bank staff; and personal coaching of 15 bank staff, assuming 3-5 persons from participating banks.	Contract Banking/EE Specialist to facilitate 3 mentoring workshops to Portfolio Management teams at Standard Bank, Sasfin Bank and FNB.		This activity is covered in 4.3.4
Output 4.3.6	Assistance to three local FIs to develop financial packages/credit lines suited to IEE investment			Covered in 4.3.1

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
	and in particular EnMS and ESO.			
Component 5.0: EnM	S and ESO Awareness	, Promotion, Service Demand	Generation and Lessons Sharing	
Component 5.2	Communication and circles, financing opp	awareness outreach activities portunities, training and capaci	to promote uptake of policy frameworl ty building activities and the EnMS and I	ks, standards, learning ESO
5.2.1 Enterprise management (across the entire South African industrial sector and selected commercial sectors) is aware of the potential financial, economic and climate change mitigation benefits that adopting EnMS and ESO can yield	Hosting and participating in industrial events and seminars / workshops	Project end event SA Energy Efficiency Confederation Conference Africa Energy Indaba 2022	Hosted 103 industry events compared to a target of 50, over the life of the project. The IEE Project-end was extensively covered at the NCPC-SA biannual conference in May 2022 and subsequent regional debriefing sessions with project stakeholders and IEEP experts. The project also participated in the Conference of the SA Energy Efficiency Confederation in October 2021 through presentations and exhibition stands, and in the Africa Energy Indaba in March 2022. Participation in the latter was through an exhibition stand and workshop presentation in Cape Town, as well as through a presentation as part of the conference programme which was hosted virtually.	Target exceeded
5.2.2	Enterprise ESO/EnMS Quick Self-Help Guides for companies to quickly begin the process of energy saving within the national power constrained environment, including short/lite guidelines for in- house EnMS and ESO awareness to disseminate IEE practices amongst enterprise staff.	Additional self- help guides for companies in biogas, power quality and chiller systems will be developed to complement and round off the end- user and expert training in these energy systems.	Published 17 ESO and EnMS self-help guides/tools were published over the life of the project.	Target achieved
5.2.3	Establishment of peer- to- peer exchange platforms/networks / learning circles (including websites) within/for target	Peer-to-peer exchange platform.	A Peer-to-Peer event was hosted in this period in the form of the relaunch of the IEE Linked-In group. A total of 3 Peer-to-Peer events were hosted over the life of the project.	Target achieved

Project Strategy	Baseline	KPIs/Indicators	Target level	Progress in FY23
	industrial (and commercial) sectors as well as the hosting of Information exchange events/working groups.			
5.2.4	An extensive set of gender sensitive / inclusive awareness raising, and communications materials and editorial pieces associated with promotion of the GEF Project and its contained outputs/activities under all of its components (including policy frameworks ISO 50001 Series of standards; training and capacity building programmes; promotion of demonstration projects and IEE finance and incentives available) as well as technical editorials on the EnMS and ESO methodologies.	Ongoing communication materials and editorial pieces, and digital media. Media monitoring and analysis Final communication materials and editorial pieces, and digital media SA IEE Phase II commemoration publication; media and comms analysis.	Social and traditional media coverage remains steady and concentrates on sharing successes and key messages. The NCPC-SA uses its own budget for advertising, as required. The communication team negotiates editorial coverage for the project - there have been 21 media articles since 1 March 2021. This brings the total number of articles for the project to 203 (articles only – adverts not included) against a target of 150 articles plus adverts Brochures – 12 in total completed over lifetime of project	Target achieved (and exceeded)
5.2.5	EnMS and ESO demonstration case study packaging and dissemination.	Ongoing activity of case study packaging and dissemination (Q2-Q3). Final case study dissemination (Q1 of 2022)	Case studies edited and uploaded onto the NCPC-SA website - total 49. Case studies can be viewed here: https://www.industrialefficiency.co.za/case-studies/case-studies-iee/	Target achieved
		Women in the SA Energy Sector study undertaken by service provider	Study on gender impact of IEE project completed end May 2022	

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	(i) Risk level FY22	(i) Risk level fy 23	(i) Mitigation measures	(ii) Progress to-date	New defined risk ^[1]
1	Coordination between the dti and the DoE remains weak – with result of mixed messages to industry thereby resulting in enterprises not actively participating in the project.	Moderat e	Moderat e	This risk will be substantially mitigated by: (i) Clear definition of roles and responsibilities of the dtic and the DoE (and the NCPC-SA and SANEDI respectively) during project preparation and establishment of a Project Coordination Unit (PCU) to coordinate executing partners and major stakeholders during implementation. (ii) Establishing a Project Steering Committee (PSC) that sets out the institutional linkages among all stakeholders under a project	The DMRE and SANEDI concluded an agreement with UNIDO to work together towards the achievement and finalisation of components 1 and 2 activities by end of Project. The relationship between the project with DMRE and SANEDI has had a marked improvement and closeness. There is better communication and collaboration between departments largely driven by key individuals,	
2	Ministries do not show interest in facilitating a conducive environment for increased IEE.	Low	Low	Government is widely committed to IEE and while difficulties due to inter and intra-departmental coordination are possible in regard to regulating the energy use of the South African industrial sector, demonstration of the benefits of EnMS and ESO measures in terms of increased national industrial competitiveness, increased job creation/retention, reduce national grid loading and reduced sector and national GHG emissions will continuously be packaged and promoted to the relevant parts of Government.	Targeted technical assistance and capacity building to enhance and implement IEE policies, incentives and regulatory frameworks supporting EnMS and ESO uptake and strengthening the coordination of associated activities across government agencies.	
3	Limited interest is solicited within industry to implement EnMS and ESO due to failures to understand the potential technical and financial benefits of implementing EnMS and/or ESO. Slow acceptance of the GEF	Low	Low	Industry demand for assistance in IEE will grow strongly because of firstly, the renewed national power constraint and the Government calls for increased IEE and secondly, rapidly rising energy costs. Furthermore, the UNIDO and NCPC-SA under the SA IEE Project has built a good reputation within industry on providing high quality training and enterprise technical implementation assistance on EnMS/ESO. Therefore, the GEF Project will not be starting from	Through UNIDO and NCPC-SA's good reputation within industry on providing high quality training and enterprise technical implementation assistance on EnMS/ESO, industry demand for assistance in IEE has grown strongly because of firstly, the renewed national power constraint and the Government calls for increased IEE and secondly, rapidly rising energy costs.	

	Project's EnMS and ESO enterprise support services results in late demonstration of the benefits of EnMS and ESO as well as SANS/ during the useful lifetime of the Project.			scratch within industrial sectors and initial companies for the demonstration programme will have already been identified prior to the outset of the GEF Project implementation. Lastly, the GEF Project will work extensively with institutions like the Energy Efficiency Leadership Network under the NBi under its awareness and communications functions to continue to lobby industry and the commercial sector on the business, social and environmental case for adopting EnMS and implementing ESO.	There has been strong uptake and sustainability of EnMS projects. Reference to the Report, "Adoption of EnMS in SA". The project has remained relevant to industry by extending its range of training topics to meet the needs of different systems. The range of services was also expanded. The project also received strong interest from SA regarding support in similar activities covered in the IEE project.	
4	Following, engineering- level personnel EnMS and ESO exposure, training, EnMS implementation and energy systems optimization assessments and reports, the management of enterprises might not be willing to invest in EE projects and technologies.	Moderat e	Moderat e	Providing training/exposure for enterprises' key higher management level personnel to build their capacity to better understand the economic and financial value of investing in energy management and energy systems optimization. Provision of project preparation technical assistance and enhanced promotion and marketing of existing financing facilities through training for both banks and target clients.	A proxy for implementation is the savings that the project has achieved, which is still on the increase.	
5	Risk of resistance against, or lack interest in, the project activities, with regard to the active promotion of gender equality. Low participation rates by suitable female candidates and low female population within engineering fields.	Low	Low	South Africa, while having a number of significant gender issues, is a pro-gender equality society. The GEF Project will however, pursue a thorough and gender responsive communication strategy and stakeholder involvement at all levels to ensure gender equality promotion to maximize the potential contribution of the project to improving gender equality in the IEE field.	Gender mainstreaming was not designated as a separate deliverable for the Project but was integrated into all components in alignment with the project strategy to be gender inclusive and mainstream aspects of gender into project delivery. Through its gender mainstreaming approaches, the project supported capacity building and technical support for the involvement of stakeholders in national policy sector design, implementation, research, and advocacy efforts on women's empowerment in the IEE sector. This was actively promoted through thematic government and industry workshops, conferences, and media articles to promote women in the IEE sector and the energy sector more broadly.	
6	Climate change can significantly reduce industrial	NA	NA	Based on discussions with the South African Government and relevant experts, climate change	The effects of climate change have of recent, been felt by the water supply constraints,	

	output in South Africa and therefore the need to increase IEE.			does not yet present significant risks to South African industrial production levels within the time period of the project.	especially in the Western Cape. The impact of climate change has been felt across industry and has affected production levels in many industries. Inability of the grid to supply or meet the demand remains a problem. The Section 12L Energy Efficiency tax incentive has continued un-abated and provided much needed relief to industrial and commercial energy users, especially through the COVID-19 lockdown period.	
7	The negative impact of Covid- 19 on South African Industry and related impact on project delivery. Low/reduced activity levels level and participation in the IEEP, due to industry having reduced staff compliments with reduced output levels.	Low	Low	The risk will be mitigated by: (i). IEE Project staff continuing work activities and maintaining momentum with sites by moving meetings to online platforms, where possible. (ii). Limited numbers of staff to be at office to reduce the chance of transmission. (iii). Movement of training activities to an online platform.	Work was delayed due to procurement moratorium imposed by National Treasury between February and end of March 2022. However, an increasing 'new normal' has been a hybrid form of working, where online meetings are combined with face to face.	

2. If the project received a <u>sub-optimal risk rating (H, S)</u> in the previous reporting period, please state the <u>actions taken</u> 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.

NA

3. Please indicate any implication of the COVID-19 pandemic on the progress of the project.

The COVID pandemic had an impact on the project delivery, requiring extensions to be requested. The NCPC-SA activities rely largely on direct engagement with industry company representatives for site assessments and follow up activities. The restricted access imposed by many sites as a result of the government imposed National State of Disaster Adjusted alert levels, did make access to many sites, key industry stakeholders and service provider procurement difficult and onerous. This has resulted in a number of direct company engagement interventions lagging including site follow-ups, EnMS implementation facilitation, technical support and financial linkages. Where possible, use was made of virtual platforms to engage. The skills development element of the NCPC-SA's offerings was another area initially severely curtailed by imposition of social distancing requirements and banning of in person training sessions. Despite this, the Centre did anticipate the COVID impact and was able to procure user licences for a suitable online platform and tailor the current training material to enable End-User and non-contact module training to continue.

During the reporting period, the impact of COVID has been relatively lower.

4. Please clarify if the project is facing delays and is expected to request an extension.

NA

5. Please provide the **main findings and recommendations of completed MTR** and elaborate on any actions taken towards the recommendations included in the report.

Please see below the main recommendations from the MTR. UNIDO followed the recommendations presented in the MTR and the project activities are finalized. The TE is being finalized.

Project design

The project design is seen as sound, appropriate, and technically feasible based on the extent of strategic alignment, the constellation of involved actors playing pertinent roles, its development through a consultative approach, the key four pillars on which it is based which are highly appropriate to address the problem at hand, together with the resourcing that was put in place

While two components have not progressed, which is a setback for the overall project, good progress has been achieved across the remaining aspects (apart from outputs related to gaining professional recognition, enhancing the IEE footprint in TVET institutions and facilitating access to financing IEE). More time is needed to allow the responsible institutions to carry out their designated responsibilities, which support national priorities and will provide the opportunity to build up valuable competences, data, confidence, and stature

Monitoring and evaluation

Project Management

The project is guided at the highest level by an appropriately constituted PSC that meets regularly and has demonstrated increasing alignment over time. While there is little visibility, as yet, into DMRE/SANEDI's operational setting, there is high appreciation of NCPC-SA's project leadership, although capacity constraints and a dual reporting structure are generating risks.

Results-Based Work Planning, M & E, Reporting

The project's results framework was used as a management tool to guide the development of work plans and to regularly monitor and report on results. The strategy of 'ring-fencing' and heavy focus on KPIs demonstrate a commitment to maintain focus on results-based work but risks inhibiting investment in learning from those results. Delaying the MTR missed a vital opportunity to independently gather perspectives to generate insight and momentum for an earlier adaptive response to the prolonged delay that has been a setback for the overall project.

Stakeholder Engagement and Communication

Government stakeholders support project objectives and have an active role in decision-making through their engagement as implementing partners. External communications have been well- established, are sufficiently budgeted, and are achieving adequate outreach through an impactful choice of media platforms. While internal project communication has been working well for the most part, breaks in contact with UNIDO headquarters have led to missed opportunities for some challenges to be addressed in a timely manner.

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?

Not applicable- this is a GEF 5 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).

	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	NA	NA	NA
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	NA	NA	NA

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).

The strong commitment to the Project by key stakeholders has been confirmed at IEE PSC meetings, attended by the dtic, DMRE, DFFE, CSIR, SANEDI, UNIDO and the NCPC-SA.

To progress in each of these components and to achieve their associated outcomes, the project identified and worked with a range of stakeholder groups. There are six notable stakeholder groups:

- **Government departments**: the Department of Mineral Resources and Energy (DMRE), the Department of Trade, Industry and Competition (dtic), and the Department of Forestry, Fisheries, and the Environment (DFFE),
- **Government agencies:** such as the National Cleaner Production Centre of South Africa (NCPC) and the South African National Energy Development Institute (SANEDI),
- Industrial enterprises (and selected commercial) and their staff,
- **Financial institutions**, prospective financial institutions and international financial institutions such as SASFIN Bank, the International Financial Corporation (IFC) and the German Development Bank (KfW),
- **Training institutions** and companies including Universities of Technology; Further Education and Training (FET) Colleges; Private Training Providers and Workplace Training Providers, and
- EnMS and ESO practitioners and consultants.

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.).

N/A

3. Please provide any relevant stakeholder consultation documents.

n/a

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),.

Gender mainstreaming was not designated as a separate deliverable for the Project, but was integrated into all components in alignment with the project strategy to be gender inclusive and mainstream aspects of gender into project delivery. Through its gender mainstreaming approaches, the project supported capacity building and technical support for the involvement of stakeholders in national policy sector design, implementation, research, and advocacy efforts on women's empowerment in the IEE sector. This was actively promoted through thematic government and industry workshops, conferences, and media articles to promote women in the IEE sector and the energy sector more broadly.

A key deliverable during the reporting period has been the study into the impact of the project on gender mainstreaming in the IEE sector by an external service provider. The report broadly looks at the barriers and opportunities faced by women in the sector and how the project has purposefully designed measures to support women to overcome these barriers and take advantage of opportunities for career advancement, growth and sustainability in the sector. The study focused on the following:

- Determining the impact of the IEE Project in SA on gender mainstreaming in the IEE sector in SA
- Providing recommendations based on learnings from this project as a gender-responsive model for other IEE initiatives in the country and UNIDO IEE initiatives globally

The main findings of the study were as follows:

- The Project has made a substantial contribution to promoting gender equality and advancing women's participation and role in South African IEE sector
- Future projects should build on the foundation established by the project, and pursue transformative goals to address the structural gender barriers persisting in the sector

Special mention was made of the positive impact of the IEE training on the career development of both men and women, with stakeholders making particular reference to the impact on qualified women in the labour market. Of the 3 649 attendees of IEE training in the various levels of training on Energy Systems Optimisation (ESO) and Energy Management System (EnMS) presented during Phase II of the project, 37.4% were women. (It should be kept in mind that training statistics reflect an accumulative number. People attending multiple trainings are including multiple times.)

Interviewees indicated that the training contributed to an increase in women in STEM and women's participation and leadership in the sector at all levels. Marketing campaigns for the training were found to have been gender sensitive, specifically targeting women in their awareness building/ outreach. There has been a significant impact on the confidence, an increase of awareness about job opportunities, information and networks in the IEE sector and some evidence to suggest that increases in human capital, networks and opportunities have stimulated women-owned SMME (emerging, nascent). It was found that efforts from the IEE project related to skills development and profiling women in leadership and as role models, are likely to have played a key role in kickstarting increased empowerment of women in the sector.

Other activities relating to gender mainstreaming during the period include the following:

- Gender equity focus maintained in media and events
- IEE advert in Business Day Women's Month supplement; NCPC-SA advert in Mail & Guardian
- Facilitation of participation in various events, incl. gender side events at VEF, COP26, and UCT-GSB Women in Industry event
- IEE Project nominated and accepted as Board member of SA Females in Energy Efficiency (SAFEE), a chapter of the SA Confederation on Energy Efficiency (SAEE). Note: The Project Manager has unfortunately since left the employ of the NCPC.
- SANEDI initiated various gender mainstreaming-related activities, including a series of females in energy profiles and the inaugural conference on Women in Energy

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.

The Project continued the process disseminating results through existing information sharing networks and forums both in South Africa and abroad. These include participation in industry and NCPC-organised, articles and advertisements in trade publications, social media posts and participation in the UNIDO Industrial Energy Efficiency Accelerator platform (now the Industrial Decarbonization Accelerator) - <u>https://www.industrialenergyaccelerator.org/</u>

- Lead IEEP Project managers served as PSC members on the "Development of Sustainable Financing Mechanisms for Demand-Side Energy Efficiency Market Transformation in South Africa"
 World Bank Project for SANEDI. A report will be published shortly, which will encapsulate the input of the IEEP and showcase the newly proposed and developed financing mechanism for South Africa.
- Energy mapping study-The main objective of the study was mapping the national energy consumption, focusing on the commercial and industrial sectors. The activity had included analysing the sectoral and process related energy savings potential and forecasted consumption trends. The study had investigated the sources and consumption of energy in the Commercial and Industrial Sectors. In the industrial sectors, the focus was on the textile, iron and steel, cement, paper, agri-processing, automotive, chemicals and pharmaceuticals, food and beverage subsectors. In the Commercial sector, the focus was on shopping centres, and warehouses. A report and recommendations were concluded.
- Two RECP Sustainable Finance Workshops have taken place within the GP and WC regions, which were very successful and well attended. Fourteen requests for linkage to financing mechanisms were unearthed which the IEEP PM Team have been following-up on.
- One Access to RECP Finance workshop took place in KZN.
- Peer to peer networks: This activity was delivered through a virtual event on 25 October, where the UNIDO and NCPC energy tools were shared and the IEE in South Africa LinkedIn page was relaunched as a knowledge-sharing "peer-to-peer" platform
- Case studies continue to be edited and uploaded onto the NCPC-SA website. Case studies can be viewed here: <u>https://www.industrialefficiency.co.za/case-studies/case-studies-iee/</u>

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

NA

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.

The project was implemented well in several areas, but also missed a number of opportunities that might easily have added tremendous value to the project.

The project may have benefitted from the development and implementation of a specific Small, Medium and Micro Enterprises (SMME) focussed strategy. While the engagement of the corporate sector in South Africa is important in ensuring the tangible uptake of energy efficient solutions, the SMME sector in South Africa is considerable, and needs similar attention. However, the SMME sector is also diverse in its nature and

requires unique engagement strategies

The SA IEE has contributed to and laid a foundation to achieve the intended impact. However, there is a complex array of barriers and assumptions, to be overcome, importantly including internal capacity and readiness of government departments and institutions which hold the responsibility for creating and maintaining an enabling regulatory environment for these changes to gain traction and influence change.

The SA IEE had a moderately positive effect in terms of economic performance and social inclusiveness (contributed to cost savings of several companies; to changes in training of a number of individuals and companies; and built capacity in some government institutions) yet it is very unlikely that the proposed long-term effects will be materialized, given that the conditions for a transformational process are not in place and there appears to be little in place to promote the project's advances beyond the end of the project.

There are some positive developments including a draft National Energy Efficiency Strategy submitted to Cabinet for approval (current NEES is from 2016) but without any date set for approval; and it is unclear to what extent the current project contributed to this strategy. There is also a tax incentive (12L) to provide support to some businesses that undertake IEE interventions, yet it is fully dependent on yearly budgetary negotiations and eventual appropriations. It is not clear to what extent this is a budgetary priority, but given the considerable diverse pressures facing the fiscus, it is energy efficiency is unlikely to be high on the priority list.

The subcontract with SANEDI, around 80% of activities were implemented, which were reflected in the 2021/22 workplan. The project was a success but due to factors beyond human control such as supply chain management delays, it was impossible to execute all activities within the given project timeline. Challenges such as COVID-19 lockdown regulations and the stringent public supply chain management procedure caused delays that have affected the timely delivery of the project.

2. Please briefly elaborate on any **minor amendments**⁵ to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

	Results Framework	
×	Components and Cost	 On the 15th October 2021, a decision was made to reduce the scope for the work originally contracted between UNIDO and SANEDI. The two reasons are as following. 1. Tight timelines with 5 months remaining to close contract execution - The project was formally granted an extension by the Project Steering Committee (PSC) on the 25th of May 2021. Since then, SANEDI had worked to fast-track project delivery. A meeting between UNIDO and SANEDI on 22 September 2021 discussed a reduced scope of work. 2. Focus efforts of contract delivery on critical activities – SANEDI and the DMRE would like to focus their effort on the successful delivery of the SA IEEP II Project. It is important to use the remaining few months of the project to address critical activities that guarantee the most significant impact to both the project and industrial energy efficiency improvements in South Africa. For this reason, a reduced scope and costs to address the remaining activities was agreed on.
	Institutional and Implementation Arrangements	None
	Financial Management	None
Х	Implementation Schedule	Request for extension was to include the following:

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.

⁵ 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%.

	 The project was intended to finish on 30 June 2022, but an extension of 3 months was requested. Completion of the final evaluation and ensuring proper follow up on actions identified (July-August 2022) Delivering the pending outputs related to the subcontract on policy with SANEDI (July-September 2022) Digitize the EnMS training programme to ensure wider dissemination and support the project legacy (July-December 2022) – part of new UNIDO project to establish an e-learning platform Undertake necessary follow up on the gender impact study delivered under the project (July-September 2022)
Executing Entity	None
Executing Entity Category	None
Minor Project Objective Change	None
Safeguards	None
Risk Analysis	None
Increase of GEF Project Financing Up to 5%	None
Co-Financing	None
Location of Project Activities	
Others	

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

The project terminal evaluation took place and the project operationally closed.

UNIDO	GRANT DELIVERY REPORT	Grant: Sponsor:	2000003232 400150 - GEF - Global	Grant Status: Currency:	Operationally completed	Grant Validity: Reporting Period:	01.12.2015 - 30.09.2022
			Environment Facility	-			
		Other Reference:	5379-U3-PJ-FS-GR-03	Fund:	GF	Prepared on:	02.08.2023
Project	Project Description	Country	Region	Project Manager			Project Validity
120487	INDUSTRIAL ENERGY EFFICIENCY IMPROVEMENT IN SOUTH AFRICA THROUGH MAINSTREAMING THE INTRODUCTION OF ENERGY MANAGEMENT SYSTEMS AND ENERGY SYSTEMS OPTIMIZATION	South Africa	Africa	Rana Ghoneim		19.10.2014 - 30.09.2022	

	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (C)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (1)	Total Expenditures (j=g+l)
120487											
120487-1-01-01	1.0: Data Quality Improvement	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1500	Local Travel	0.00	0.00	0.00	0.00	1,461.98	1,461.98	1,392.05	69.93	0.00	1,392.05
2100	Contractual Services	0.00	0.00	0.00	0.00	(4,461.98)	(4,461.98)	(462.49)	(3,999.49)	0.00	(462.49)
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.31	88.31
120487-1-01-01	Total	0.00	0.00	0.00	0.00	(3,000.00)	(3,000.00)	929.56	(3,929.56)	88.31	1,017.87
120487-1-01-02	2.0: IEE Policy Implementation	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0.00	0.00	0.00	0.00	0.00	0.00	(0.02)	0.02	0.00	(0.02)
1700	Nat.Consult./Staff	0.00	0.00	0.00	0.00	0.00	0.00	0.01	(0.01)	0.00	0.01
2100	Contractual Services	0.00	0.00	0.00	0.00	2,000.00	2,000.00	2,871.99	(871.99)	0.00	2,871.99
4500	Equipment	0.00	0.00	22.44	22.44	0.00	0.00	47.77	(47.77)	0.00	47.77
5100	Other Direct Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	277.39	277.39
120487-1-01-02	Total	0.00	0.00	22.44	22.44	2,000.00	2,000.00	2,919.75	(919.75)	277.39	3,197.14
120487-1-01-03	3.0: EnM\$ and ESO Training Programme	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1700	Nat.Consult./Staff	0.00	0.00	0.00	0.00	2,005.85	2,005.85	167.98	1,837.87	0.00	167.98
2100	Contractual Services	0.00	0.00	(38,873.33)	(38,873.33)	0.00	0.00	(14,126.98)	14,126.98	0.00	(14,126.98)
5100	Other Direct Costs	0.00	0.00	0.00	0.00	(5.85)	(5.85)	196.59	(202.44)	0.00	196.59
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1,128.72)	(1,128.72)
120487-1-01-03	Total	0.00	0.00	(38,873.33)	(38,873.33)	2,000.00	2,000.00	(13,762.41)	15,762.41	(1,128.72)	(14,891.13)

UNIDO	GRANT DELIVERY REPORT	Grant:	2000003232	Grant Statue:	Operationally completed	Grant Validity:	01.12.2015 - 30.09.2022
			400150 - GEF - Global Environment Facility	Currency:	USD	Reporting Period:	01.12.2015 - 02 08 2023
		Other Reference:	5379-U3-PJ-FS-GR-03	Fund:	GF	Prepared on:	02.08.2023
Project	Project Description	Country	Region	Project Manager			Project Validity
120487	INDUSTRIAL ENERGY EFFICIENCY IMPROVEMENT IN SOUTH AFRICA THROUGH MAINSTREAMING THE INTRODUCTION OF ENERGY MANAGEMENT SYSTEMS AND ENERGY SYSTEMS OPTIMIZATION	South Africa	Africa	Rana Ghoneim			19.10.2014 - 30.09.2022

	Description	Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (C)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (I)	Total Expenditures (]=g+l)
120487-1-01-04	4.0: Investment Promotion In IEE	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0.00	0.00	0.00	0.00	(255.72)	(255.72)	787.78	(1,043.50)	0.00	787.78
1500	Local Travel	0.00	0.00	0.00	0.00	(7,191.13)	(7,191.13)	(898.41)	(6,292.72)	0.00	(898.41)
1700	Nat.Consult./Staff	0.00	0.00	0.00	0.00	4,861.09	4,861.09	(12.81)	4,873.90	0.00	(12.81)
2100	Contractual Services	0.00	0.00	(1,429.50)	(1,429.50)	3,823.55	3,823.55	(1,720.79)	5,544.34	0.00	(1,720.79)
5100	Other Direct Costs	0.00	0.00	0.00	0.00	712.21	712.21	1,532.94	(820.73)	0.00	1,532.94
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,209.35	4,209.35
120487-1-01-04	Total	0.00	0.00	(1,429.50)	(1,429.50)	1,950.00	1,950.00	(311.29)	2,261.29	4,209.35	3,898.06
120487-1-01-05	Raising	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0.00	0.00	0.00	0.00	(0.01)	(0.01)	0.00	(0.01)	0.00	0.00
1500	Local Travel	0.00	0.01	0.00	0.01	(747.67)	(747.67)	1,014.00	(1,761.67)	0.00	1,014.00
1600	Staff Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	Nat.Consult./Staff	0.00	0.00	0.00	0.00	88.21	88.21	93.37	(5.16)	0.00	93.37
2100	Contractual Services	0.00	0.00	(2,785.00)	(2,785.00)	702.14	702.14	(2,590.71)	3,292.85	0.00	(2,590.71)
5100	Other Direct Costs	0.00	0.00	0.00	0.00	7.33	7.33	(1,610.28)	1,617.61	0.00	(1,610.28)
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(240.17)	(240.17)
120487-1-01-05	Total	0.00	0.01	(2,785.00)	(2,784.99)	50.00	50.00	(3,053.62)	3,143.62	(240.17)	(3,333.79)
120487-1-51-01	6.0: Project Monitoring & Evaluation	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1500	Local Travel	0.00	(0.03)	0.00	(0.03)	0.00	0.00	(0.03)	0.03	0.00	(0.03)
1600	Staff Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5100	Other Direct Costs	0.00	0.00	0.00	0.00	(500.00)	(500.00)	0.00	(500.00)	0.00	0.00
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
120487-1-51-01	Total	0.00	(0.03)	0.00	(0.03)	(500.00)	(500.00)	(0.03)	(459.57)	0.01	(0.02)

UNIDO GRANT DELIVERY REPORT		Grant:		200000	3232		Grant Sta	atus:	Operationally completed	Grant Va	lidity:	01.12.2015 - 3	0.09.2022		
			Sponsor:		400150 Environ	- GEF - Global ment Facility		Currency	r:	usu	Reportin	g Period:	01.12.2015 - 0	2 08 2023	
				Other Reference: 5		5379-U3-PJ-FS-GR-03		Fund:	1	GF	Prepared on:		02.08.2023	02.08.2023	
Project	Project Description		Country		Region			Project N	tanager				Project Validit	ty	
120487	INDUSTRIAL ENERGY EFFICIENCY IMPROVEMENT IN SOUTH AFRICA THROUGH MAINISTREAMING THE INTRODUCTION OF ENERGY MANAGEMENT SYSTEMS AND ENERGY SYSTEMS OPTIMIZATION		South Africa		Africa			Rana Gho	oneim				19.10.2014 - 3	0.09.2022	
	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disburse Current (C)	ments Year	Expenditures Current Year (d=b+c)	To Agree Budg	otal ement get (e)	Release Budget (f)	d Obliga Disbur	stions + sements (g)	Funds Available* (h=f-g)	Support Cost (I)	Total Expenditures (j=g+i)	

		(8)	(b)	(C)	(d=b+c)	Budget (e)	(1)	(g)	(h=f-g)	(9	(J=g+I)
120487-1-52-01	Project Management	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1700	Nat.Consult./Staff	0.00	0.00	0.00	0.00	(2,500.00)	(2,500.00)	(139.42)	(2,360.58)	0.00	(139.42)
4500	Equipment	0.00	0.00	0.00	0.00	0.00	0.00	50.10	(50.10)	0.00	50.10
5100	Other Direct Costs	0.00	0.00	0.00	0.00	0.00	0.00	988.41	(988.41)	0.00	988.41
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	197.92	197.92
120487-1-52-01	Total	0.00	0.00	0.00	0.00	(2,500.00)	(2,500.00)	899.09	(3,399.09)	197.92	1,097.01
120487	Total	0.00	(0.02)	(43,065.39)	(43,065.41)	0.00	0.00	(12,418.95)	12,418.95	3,404.09	(9,014.86)
2000003232	U SD Total	0.00	(0.02)	(43,065.39)	(43,065.41)	0.00	0.00	(12,418.95)	12,418.95	3,404.09	(9,014.86)

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.

N/A: The project terminal evaluation took place and the project operationally closed.

X. Synergies

1. Synergies achieved:

N/A

3. Stories to be shared (Optional)

N/A

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 <u>OpenStreetMap</u> or <u>GeoNames</u> use this format. Consider using a conversion tool as needed, such as: <u>https://coordinates-converter.com</u> Please see the Geocoding User Guide by clicking <u>here</u>

Location Name	Latitude	Longitude	Geo Name ID	Location and Activity Description
Pretoria	S 25° 44' 41"	E 28° 11' 16"	964137	NCPC located there so all project and training activities were centered there

Durban	S 29°51′28″	E 31°01′45″	1007311	NCPC located there so all project and training activities were centered there
Cape Town	S 33°55′33″	E 18°25′24″	3369157	NCPC located there so all project and training activities were centered there

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate.

EXPLANATORY NOTE

- 1. Timing & duration: Each report covers a twelve-month period, i.e. 1 July 2021 30 June 2022.
- 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 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 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 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 <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.						
Moderately 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 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 75% 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 51% and 75% 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 26% and 50% 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 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks.					