



# **Development Bank of Ethiopia**

**Access to Distributed Electricity and Lighting in Ethiopia (ADELE) Project**

## **DBE-Operations Manual**

### **SUMMARY ABSTRACT**

**2023,  
Addis Ababa**

## Table of Contents

<b>LIST OF ANNEXES .....</b>	<b>II</b>
<b>LIST OF FIGURES.....</b>	<b>II</b>
<b>ABBREVIATIONS .....</b>	<b>III</b>
<b>1. INTRODUCTION.....</b>	<b>6</b>
1.1. THE OPERATIONS MANUAL.....	6
1.2. PURPOSE, AUDIENCE AND GOVERNANCE OF THE MANUAL.....	6
<b>2. THE ADELE PROJECT.....</b>	<b>8</b>
2.1. PROJECT DESCRIPTION AND OBJECTIVES .....	8
<b>3. THE FINANCING FACILITY – SUB-COMPONENT 3.2.....</b>	<b>9</b>
3.1. INTRODUCTION.....	9
3.2. ROLES AND RESPONSIBILITIES .....	10
3.2.1 Role and Responsibilities of MoWE.....	10
3.2.2 Role and Responsibilities of DBE.....	11
3.2.3 Roles and Responsibilities of PFIs .....	12
3.2.4 Roles and Responsibilities of OGS Companies.....	13
3.3. PROJECT EXECUTION CONDITIONS AND ON-LENDING ARRANGEMENTS.....	14
3.3.1 Pricing.....	14
3.3.2 Eligibility Criteria for PFIs and PSEs.....	15
3.4. CONDITIONS ON FINANCIAL INTERMEDIATION.....	19
3.4.1 Subsidiary Financing Agreement (SFA) between MoF and DBE .....	19
3.4.2 Conditions on DBE as Implementing Agency .....	19
3.4.3 Conditions of Sub-Credit Agreements (SCAs) between PFIs and PSEs.....	19
3.4.4 Conditions on PFIs Sub-credits to PSEs.....	19
<b>4. FOREIGN CURRENCY WINDOW .....</b>	<b>21</b>
4.1. IMPLEMENTATION DETAILS OF FOREIGN CURRENCY WINDOW.....	21
4.2. SUB-CREDIT LOAN PROCESS.....	24
4.3. ELIGIBILITY CRITERIA FOR PRIVATE SECTOR ENTERPRISES.....	24
<b>5. LOCAL CURRENCY WINDOW.....</b>	<b>26</b>
5.1. IMPLEMENTATION DETAILS OF LOCAL CURRENCY WINDOW.....	26
5.2. ASSESSMENT OF LOAN AMOUNT FOR MFIS .....	28
5.3. FINAL BENEFICIARIES’ LOAN PROCESS.....	28
<b>6. RISK-SHARING MECHANISM.....</b>	<b>29</b>
6.1. ELIGIBILITY CRITERIA OF PARTIAL RISK SHARING MECHANISM.....	30
<b>7. ENVIRONMENT AND SOCIAL SAFEGUARD.....</b>	<b>31</b>
7.1. INTRODUCTION.....	31
7.2. RELEVANT NATIONAL ENVIRONMENT AND SOCIAL, LEGAL AND INSTITUTIONAL LISTS.....	32
7.3. WORLD BANK ENVIRONMENTAL AND SOCIAL - STANDARDS.....	33
7.4. ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM .....	37
7.5. THE ENVIRONMENTAL AND SOCIAL GUIDING PRINCIPLES .....	38
7.6. MONITORING AND REPORTING OF E&S RISKS OF SUB-PROJECTS AND PORTFOLIO.....	43
7.7. FEEDBACK AND GRIEVANCE REDRESS MECHANISM .....	46

## List of Annexes

ANNEX 1 MONTHLY REPORTING FORMAT FOR END-USERS DATA .....	49
ANNEX 2: GRIEVANCE APPLICATION FORMAT.....	50
ANNEX 3: TECHNICAL GUIDELINE .....	51

## List of Figures

FIGURE 1: STRUCTURE OF THE CREDIT FACILITY MANAGED BY DBE UNDER AN APEX ARRANGEMENT .....	10
FIGURE 2: THE PROJECT MANAGEMENT TEAM STRUCTURE AT DBE LEVEL:.....	12

## Abbreviations

A/RAP	Abbreviated/Resettlement Action Plan
ADELE	Access to Distributed Electricity and Lighting in Ethiopia
AML	Anti-Money Laundering
ASC	ADELE Steering Committee
AWPB	Annual Work Plan and Budget
BOM	Board of Management
CAR	Capital Adequacy Ratio
CBE	Commercial Bank of Ethiopia
CBS	Core Banking System
CEO	Chief Executive Officer
CFT	Combating the Financing of Terrorism
CRMD	Compliance and Risk Management Directorate
DA	Designated Account
DBE	Development Bank of Ethiopia
DFI	Development Finance Institution
DoE	Directorate of Electrification
EEA	Ethiopian Energy Authority
EEP	Ethiopian Electric Power
EEU	Ethiopian Electric Utility
EFY	Ethiopian Fiscal Year
EFCMD	External Fund and credit Management Directorate
EIRR	Economic Internal Rate of Return
ELEAP	Ethiopia Electrification Program
EMC	Executive Management Committee
EnDev	Energizing Development
ENREP	Electricity Network Rehabilitation and Strengthening Project
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMAP	Energy Sector Management Assistance Program
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESRM	Environmental and Social Risk and Impacts Management
FEACC	Federal Ethics and Anti-Corruption Commission
FI	Financial Intermediary
FIRR	Financial Internal Rate of Return
FM	Financial Management
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographic Information System
GoE	Government of Ethiopia
GRM	Grievance Redress Mechanism

GTP	Growth and Transformation Plan
HR	Human Resources
IAP	Internal Audit Process
ICT	Information and Communication Technology
IDP	Internally Displaced Person
IEC	International Electro Technical Commission
IFR	Interim Financial Report
IFRS	International Financial Reporting Standards
IPF	Investment Project Financing
IPR	Independent Procurement Review
IT	Information Technology
IVA	Independent Verification Agent
KPI	Key Performance Indicator
LC	Letter of Credit
LLP	Loan Loss Provision
LMP	Labor Management Procedure
M&E	Monitoring and Evaluation
MAPS	Methodology on Assessment of Procurement Systems
MFI	Microfinance Institution
MoF	Ministry of Finance
MoWE	Ministry of Water and Energy
MSEs	Micro and Small Enterprises
MST	Minimum Subsidy Tender
MTF	Multi-Tier Framework
MV	Medium-Voltage
NBE	National Bank of Ethiopia
NDC	Nationally Determined Contribution
NEP	National Electrification Program
NPL	Non-performing Loan
NPV	Net Present Value
O&M	Operation and Maintenance
OGS	Off-Grid Solar
OGU	Off-Grid Unit
OHS	Occupational Health and Safety
OP	Operational Policies
PAD	Project Appraisal Document
PAP	Project-Affected Person
PAYGo	Pay-as-you-go Model
PBG	Performance-Based Grant
PCB	Polychlorinated Biphenyl
PDO	Project Development Objective
PEFA	Public Expenditure and Financial Accountability
PFI	Participating Financial Institution
PFM	Public Financial Management
PIU	Project Implementation Unit

PMO	Portfolio Management Office
PMT	Project Management Team
POM	Project Operations Manual
PPIAF	Public-Private Infrastructure Advisory Facility
PPE	Personal Protective Equipment
PPP	Public-Private Partnership
PSE	Private Sector Enterprise
PUE	Productive Use Equipment
PV	Photovoltaic
QC	Quotation Committee
RBF	Results-Based Financing
REACC	Regional Ethics and Anti-Corruption Commission
RoaA	Return on Average Assets
RoaE	Return on Average Equity
RPF	Resettlement Policy Framework
RPP	Revenue Protection Program
RPPPAA	Regional Public Procurement and Property Administration Agency
SA	Social Assessment
SBD	Standard Bidding Document
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SHS	Solar Home System
SMEs	Small and Medium Enterprises
SMEFP	Small and Medium Enterprise Finance Project
SNNPR	Southern Nations, Nationalities, and Peoples' Region
SOB	State-Owned Bank
SOE	State-Owned Enterprise
STDs	Sexually Transmitted and Communicable Diseases
STEM	Science, Technology, Engineering, and Mathematics
TOU	Time of Use
UEAP	Universal Electricity Access Program
VSLA	Village Savings and Loan Association
WEDP	Women Entrepreneurship Development Project
WMP	Waste Management Plan
WTP	Willingness to Pay

## **1. Introduction**

### **1.1. The Operations Manual**

This Operations Manual (henceforth referred to as “Manual”) is designed to support the Development Bank of Ethiopia (DBE) in implementing the Financing Facility (sub-component 3.2) of the Access to Distributed Electricity and Lighting in Ethiopia (ADELE) project. Henceforth, referred to as either “ADELE” or “the Project”, in accordance with the financing agreement entered between the Federal Democratic Republic of Ethiopia and the World Bank Group.

This Manual presents the guidelines and procedures governing the implementation of Component 3, specifically sub-component 3.2: Access to finance to increase Off-grid Solar Penetration. The Sub-component will be implemented by the Development Bank of Ethiopia, as per the guidelines established in the present Operational Manual.

The Manual has eleven major sections namely: Introduction, The ADELE Project, The Financial Facility – sub-component 3.2, Foreign Exchange Window, Local Currency Window, Risk Sharing Mechanism, Monitoring and Evaluation, Finance Management, Environment and Social Safeguards and Technical Guideline.

### **1.2. Purpose, audience and governance of the Manual**

The purpose of the Manual is to define responsibilities, eligibility and procedures related to the implementation of the financing facility of ADELE, in line with the project design outlined in the Project Appraisal Document (PAD) and subject to all applicable World Bank policies. This Manual has been designed to identify and establish the principles and mechanisms including the roles, functions, inter-relations, eligibility criteria and responsibilities of DBE, as the implementing entity, and other institutions involved in the implementation of sub-components 3.2. of ADELE and it shall be used by all persons involved in the administration, financial management, supervision and implementation of these sub-components.

The notification to the ADELE Steering Committee (ASC) and the World Bank (WB) “No Objection” gives a legal basis for adoption of this manual, which can be amended during project implementation to clarify and improve procedures, incorporate lessons learned, reflect

challenges, or include additional requirements. Any such amendments shall be initiated through the relevant structures including the notification to the ADELE SC and no objection by the WB before the amendment(s) can be implemented. Any amendments of this manual shall require No objection from the WB for a change and subsequent implementation.

**The objectives of the Manual include:**

- (a) Provide **operational guidance** to all those involved in the administration and management of the Project, to ensure effective and efficient delivery of the Project;
- (b) Provide a framework for the implementation of the **administrative, financial, and accounting operations** under the Project;
- (c) Describe and standardize the **procedures, processes, and conditions for the disbursement of funds** and define the responsibilities of each relevant entity unit at each stage of Project implementation; and
- (d) Improve the performance of the Project through a **continuous evaluation of the activities and results achieved**, in accordance with the objectives of each component.
- (e) Serve as a reference document for all those involved in the administration and management of the Project to delineate the key steps and requirements for successful implementation.



## **2. The ADELE Project**

### **2.1. Project Description and Objectives**

The Access to Distributed Electricity and Lightening in Ethiopia (ADELE) Project Development Objective (PDO) is to increase access to reliable electricity for households, social institutions, and enterprises in Ethiopia. The ADELE project will increase access to new and improved electricity services for households, small-holder farmers, commercial and industrial users, and social institutions in urban, peri-urban, rural and deep-rural areas through on-grid, off-grid and mini grid solutions by leveraging public and private delivery modalities. It will support the implementation of Ethiopia’s National Electrification Program Implementation Roadmap (NEP-IRM) and updated off-grid electrification program (NEP 2.0), which aim to achieve universal access to electricity by 2025.

### **3. The Financing Facility – Sub-component 3.2**

#### **3.1. Introduction**

The objective of Sub-Component 3.2 is to enhance access to financing along the OGS value chain to facilitate the importation, distribution and deployment of off-grid solar systems and productive use equipment in peri-urban, rural and deep rural areas without access to alternative electricity sources.

The Sub-Component aims to address market failures and constraints in the availability of foreign currency for the importation of OGS systems and components, the availability of working capital funding along the value chain and for end-consumers, and the excessive risks premiums assigned to lending to the sector by the banking sector. Accordingly, subcomponent 3.2 will provide funding support through three distinctive financing windows:

**(i) Foreign Currency Window:** This window will provide importers access to foreign currency funds to underwrite the issuance of Letter of Credit (LC) for the importation of OGS systems and components that comply with IEC quality standards through PFIs. For purpose of project execution and documentation, funds will be considered as utilized when items are shipped and expenditures will be recognized based on shipping documents.

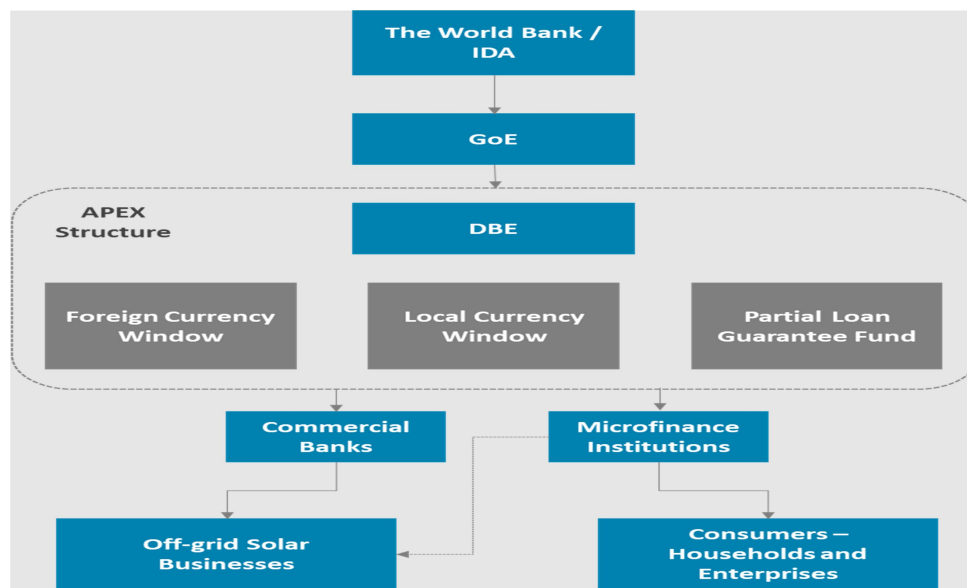
**(ii) Local Currency Window:** This window will be funded by ‘reflows’ from the transactions in the foreign currency window, that is, repayment of loans taken under the foreign currency window by importers in local currency through the PFIs. For the purpose of project execution and documentation, expenditures from the local currency window will not be documented under the project’s Designated Account (DA).

**(iii) Risk-sharing Windows:** This window will provide partial loan guarantees to enhance access to local financing by PFIs of businesses along the OGS value chain and reduce prevailing credit constraints driven by strong requirements on (immovable) collateral and high coverage ratios in lending decisions. The risk sharing mechanism will cover half of the remaining collateral coverage requirements of the Banks. It means, the borrower must pledge a minimum of 50% immovable collateral then DBE and the Bank will share the remaining collateral requirement equally. For the purpose of project execution and documentation, expenditures from the Risk Sharing Window will not be documented under the project’s Designated Account (DA).

For all three windows, DBE will act as wholesale financier for the PFIs, which will use the resources to on-lend to the final beneficiaries of the project. DBE will assume the full credit risk on the PFIs and the PFIs will assume full credit risk on the final beneficiaries.

The on-lending of credit funds by the DBE to PFIs will be in consonance with the project objectives and will follow the guidelines described in the present Manual as well as additional defined guidelines for fiduciary management and other requirements as needed.

**Figure 1: Structure of the Credit Facility Managed by DBE under an Apex Arrangement**



### 3.2. Roles and Responsibilities

#### 3.2.1 Role and Responsibilities of MoWE

MoWE will provide overall oversight and coordination of the project. As the coordinating agency MoWE leads, promotes, oversees and coordinates the implementation of ADELE including sub-component 3.2 which is delegated to DBE as the apex institution for managing the Forex facility, the Local Currency Facility (for working capital needs of OGS companies and consumer finance), and the risk sharing facility.

MoWE, in coordination with DBE, will establish and disseminate the technical eligibility criteria and operational characteristics of OGS systems – Tier 1 and above-IEC quality standards compliant, components and parts eligible to be funded under the ADELE project, and will advise, monitor and give guidance to DBE as the apex institution. Compliance with

the MoWE's technical eligibility criteria for systems and components will be required to receive funding for the importation of those systems and components under the Foreign Currency window of the operation, and their financing under the Local Currency window. Compliance with the technical eligibility criteria will have to be confirmed and documented by the OGS system businesses, the participating financial institutions and DBE as part of the funding processes. MoWE will confirm compliance through ex-post reviews of transactions. To support adequate application of the eligibility criteria, MoWE and DBE will provide technical assistance and capacity building to PFIs.

However, MoWE will not be involved in the identification and approval of PFIs and the determination of their credit exposure with DBE or the commercial characteristics of the transactions. Neither will MoWE nor DBE be involved in the identification and approval of borrowers of the PFIs – OGS system businesses or household users -, or the determination of credit conditions to end borrowers.

### **3.2.2 Role and Responsibilities of DBE**

DBE is the implementing agency for sub-component 3.2, under an apex (wholesale lending) structure. DBE will be responsible for managing three distinct 'windows' under the subcomponent, encompassing (a) the foreign currency facility, (b) the second-tier funding facility aimed at financing eligible regulated financial intermediaries' lending in local currency to businesses and consumers in the OGS value chain, and (c) the credit risk-sharing facility.

For the management of the three distinct 'windows' under the component 3 sub-component 3.2, DBE will undertake individual risk assessments of the PFIs, according to a specific due diligence methodology satisfactory to the World Bank (following the World Bank's OP 10.00 criteria), presented in this Manual to determine (a) eligibility of PFI, including based on per-capita equity and representative rural population penetration; (b) risk exposure limits, (c) pricing of funds, and (d) eligibility criteria for final borrowers.

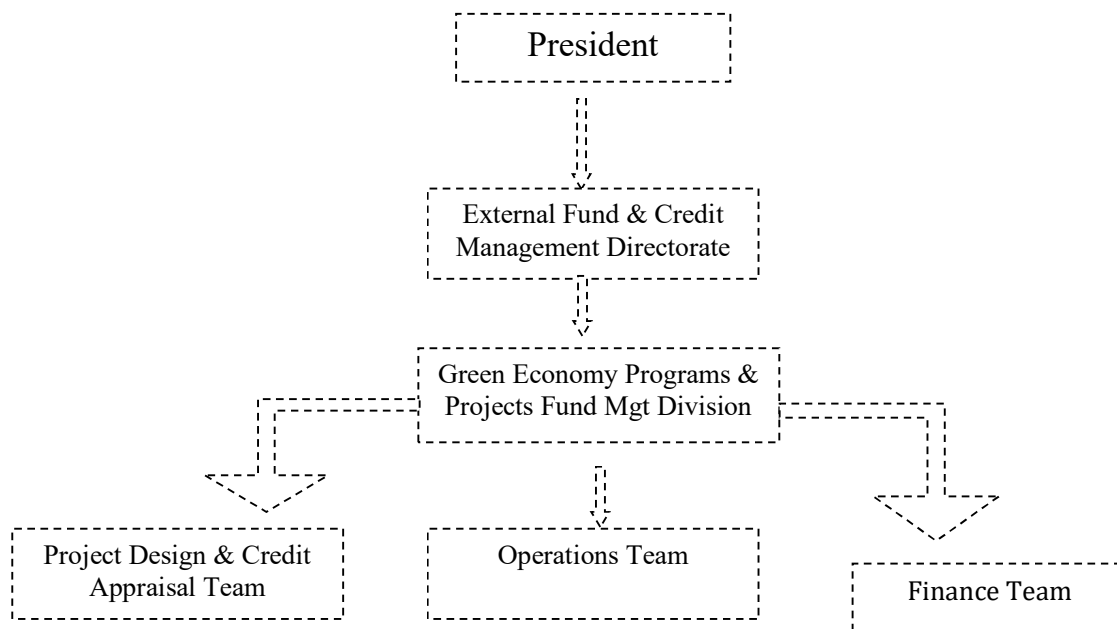
DBE's responsibilities will include:

- Manage the lending facility under Sub-component 3.2 through an apex (wholesale lending) structure.
- Assess eligibility of PFIs as per prescribed/ identified criteria.
- Manage the Forex facility.
- Manage the on-lending facility for Local Currency funding to PFIs.

- Manage the Risk Sharing Facility in support of lending activities of the PFIs.
- Provide technical support and oversight to PFIs in program implementation and in particular the compliance with borrower eligibility criteria and E&S standards.
- Conduct a follow-up, monitoring and evaluation of the subcomponents.
- Provide regular (monthly/quarterly) reporting on implementation progress.
- DBE will be responsible for preparation and submission of the Annual Work Plan and Budget (AWP&B) to the World Bank for No Objection.
- Support delivery of gender equality/equity objectives.

*The day-to-day activities of the project will be handled by the External Fund and Credit Management Directorate under the President of Development Bank of Ethiopia. The Directorate is referred as the Project Management Team (PMT).*

**Figure 2: The Project Management Team structure at DBE Level:**



### 3.2.3 Roles and Responsibilities of PFIs

The participating financial institutions (PFIs), which potentially include all regulated and duly registered commercial banks and MFIs, are the 'first-tier' intermediaries engaged directly with the private sector enterprises (PSE) engaged in the OGS value chain and end-consumer households.

PFIs will on-lend the resources received from the credit facility to the final beneficiaries (sub-borrowers) of the project. The PFI will prepare and submit to DBE for its approval an annual

work plan and budget for the credit facility. The AWP&B will indicate the proposed use of funds from the line of credit.

During the program implementation period, the AWP&B will be submitted to DBE no later than end of April 30 of each fiscal year that spans from July 1<sup>st</sup> to June 30th. DBE may extend the submission date for the first fiscal year of the ADELE financing implementation.

The PFI will carry out the implementation of the program in accordance with the AWP&B, as approved by DBE.

Their roles and responsibilities include:

- o Fulfill DBE's on lending facility requirements to get a financial access; channel the resources provided by DBE to eligible borrowers and widen access to finance;
- o Provide funding to PSEs and facilitate import of qualified and eligible OGS systems, components and appliances;
- o Provide local currency working capital loans along the OGS value chain;
- o Provide local currency consumer finance for OGS purchases;
- o Facilitate adoption of new models such as PAYGo systems through provision of financing;
- o Conduct follow up, monitoring and evaluation of each loan, as per lending policy and eligibility criteria
- o Provide monthly and quarterly reports to DBE and MoWE
- o Participate and engage in different activities to support OGS and others.
- o Ensure delivery on gender equality/equity objectives focused on serving female entrepreneurs and female customers with financial products and services

### **3.2.4 Roles and Responsibilities of OGS Companies**

- o OGS companies have to fulfill the requirements of the PFIs;
- o OGS companies import certified OGS systems and/or appliances and deliver to retailers or buyers;
- o The companies ensure the imported products are distributed and used in the intended area and targets;
- o Keep records of their sales data as per provided format and report to PFI – which provided foreign currency and/or local currency - on monthly basis;
- o The report will have all the necessary information needed for carbon finance claiming;

- o OGS companies ought to adopt a platform to ease of Monitoring, Reporting and Verifying to ensure the status of the imported/distributed solar systems. Systems may be entertained like PAYGo system and others.

### **3.3. Project Execution Conditions and On-Lending Arrangements**

The funding flow for the operation originates with the credit resources contracted by the MoF with the World Bank and then cascades to the private end borrowers, OGS system businesses or end consumers through an apex arrangement and first-tier borrowers and above, applying independent client selection criteria and risk assessments and commercial loan terms.

The DBE will perform the function of the apex institution and will receive the projects funds from the MoF through a dedicated account in the NBE. The funds will be applied by DBE in three different windows accessible to all eligible PFIs, which in turn will channel the resources to their selected clients.

#### **3.3.1 Pricing**

The project seeks to establish pricing mechanisms and product conditions which will minimize distortions and disincentives and broadly reflect market conditions, as well as risks and operational costs at each stage of the intermediation process. As such, DBE's transactions under the component's project lending windows will reflect customary market conditions and rates. In turn, PFIs will freely establish rates and conditions for their on-lending.

The DBE will apply a commercial approach in its on-lending activities. On-lending rates to PFIs in the apex window will reflect DBE's operational costs as well as be commensurate with the average funding costs of the PFIs' and their respective risks assessments. The NBE minimum savings rate or the yield on longer-dated government debt instruments will serve as benchmarks for pricing to reduce crowding-out effects.

The pricing proposal under the project is to strive to make DBE funding available to eligible financial intermediaries and project beneficiaries on terms that ensure sustainability. The wholesale pricing for PFIs is yet to be determined by DBE.

The pricing approach may be considered during the technical assistance stage to best ensured that new products which utilize novel lending techniques are rolled out in a sustainable fashion. The wholesale, therefore, need to reflect its cost of borrowing, a spread to cover the

costs of operation, macroeconomic and lending risk-premium, and local lending market conditions so as to avoid market distortions. Charging a margin that adequately reflects DBE's cost and risk will allow it to enhance sustainability and build a capital base which could then be reinvested in new loans to eligible PFIs.

PFIs funded by DBE will assume full credit risk on their portfolio under the project and will be free to price the sub-loans reflecting their cost and risk, thus ensuring sustainability of their loan portfolio while maintaining competitive rates in support of off-grid sector development.

The impact of the project on affordability of finance would be based on extending loan tenures that will ultimately have a large positive impact on eligible project beneficiaries' cash flow. Longer loan tenures could substantially reduce monthly payments resulting in debt service relief and expanding beneficiaries borrowing capacity and allowing them to further develop and grow their businesses. Overall, the pricing strategy should serve the purpose of attracting the eligible PFIs to participate in the scheme at an adequate margin, while enabling more affordable finance for the targeted beneficiaries of the project.

Conditions of on-lending operations, including pricing of loans, will be freely determined by the PFIs in line with their approved policy and commercial decisions, to support the sustainability of the approach. Furthermore, all credit and risk decisions regarding eligible first-tier operations will rest only with the PFIs, within the procedures and eligibility criteria established in the POM. The participation of private sector entities, PFIs, should ensure pricing that follows market practices.

Pricing for the partial loan guarantees will reflect DBE's capital costs, operational costs, and an adequate risk premium based on a risk assessment of the PFIs and the performance of the OGS loan portfolio. The experience under the current ENREP has shown exceptionally good portfolio performance with no registered defaults at present.

### **3.3.2 Eligibility Criteria for PFIs and PSEs**

#### **3.3.6.1. Selection and Eligibility Criteria for PFIs**

Under Component 3.2 all duly established, regulated and supervised financial intermediaries – commercial banks or micro-finance institutions – will have access to the funding facilities of the Foreign Exchange and the Local Currency window as well as the Risk Sharing facility, subject to compliance with the following selection and eligibility criteria:



### **A) Selection Criteria of Private Commercial Banks**

All commercial banks that are operating under a current license, have no ‘fit and proper’ concerns with respect to shareholders, directors, and principal executives, are in ‘good regulatory standing’ will be eligible to operate as PFIs, following an eligibility assessment by the DBE. The DBE will undertake individual risk assessments of the institutions, according to a specific due diligence methodology satisfactory to the World Bank’s OP 10.00 criteria to determine (a) eligibility of PFI, (b) risk exposure limits, (c) pricing of funds, and (d) eligibility criteria for final borrowers. DBE will regularly, at least once a year, review eligibility compliance of PFIs.

Areas to be addressed in assessing PFIs will include, among others,

- Governance arrangements and processes;
- External and internal audit, compliance, and oversight;
- Risk management capacity, including policies and procedures for financial (liquidity, credit, currency, and interest rate), operational risks, and market risk;
- Capital adequacy, NPL, and liquidity ratios;
- Assets risks assessment and loan loss provision;
- Profitability and (structurally) positive RoA and RoE; and
- Reporting capacity and CBS/MIS functionality.

The selection criteria for PFIs will include, but will not be limited to;

- a) Soundness and sustainability of the institution, as demonstrated by good key performance indicators
- b) Willingness and ability of the institution to properly process final beneficiaries of this credit line applications and service.
- c) Commitment to understand the impact of final beneficiaries on clients over time and adjust operations accordingly, including a willingness to restructure defaulting loans.
- d) Demonstration of commitment to knowledge management and sharing.
- e) Demonstration of commitment to client protection and transparent pricing
- f) Proven experience in Off-grid solar

## **B) Eligibility Criteria for Microfinance Institutions**

The participating financial institutions under this facility are MFIs registered and operating in accordance with the applicable laws and regulations of Ethiopia and selected to participate in the project in conformity with the eligibility criteria by DBE.

### **3.3.6.2 ‘End-Beneficiaries’ (Private Enterprises in the OGS Value Chain, Consumers)**

#### **A) Target group**

Funding under component 3.2 of the ADELE program will be channeled through the eligible PFIs and PMFIs to private sector enterprises (PSE) in the OGS system value chain and private households, to support investments in OGS systems, components and service.

The component aims to foremost improve access for rural and deep rural areas, focusing on funding PSEs and households which serve or are located in rural and deep rural areas.

Final eligibility of borrowers, PSEs and private households will be established by the PFIs and PMFIs as part of their credit origination and credit risk review processes.

Special emphasis will be made to ensure equitable access to funding for women owned or led enterprises. Furthermore, care will be taken to provide access to enterprises in rural areas and those which provide ‘last mile’ distribution, maintenance and recycling services.

Funding will be provided to enhance the availability of and access to OGS systems, components, parts and services in rural and deep rural areas.

#### **B) Eligibility Criteria of Private Enterprises (Including Eligible Technologies)**

All PSEs engaged in the OGS system value chain, which are duly established, registered and in compliance with tax and other applicable federal and local regulations, are eligible for participation under the ADELE funded project components, subject to compliance with PFIs and PMFIs credit risk criteria.

ADELE funded components will provide financing for working and investment capital to support the importation, distribution, installation, repair and recycling of OGS systems or parts, as well as maintenance and recycling of such systems. Products eligible for financing include plug and play systems, component-based systems, as well as spare and replacement parts for any off-grid solar standalone system. In the context of ADELE, eligible off-grid solar products refer to:

- Off-grid solar products (systems and components) that qualify as Tier 1<sup>1</sup> or above as per the Sustainable Energy for ALL (SEforALL) Multi-Tier Framework (MTF), and certified by legitimate and acceptable entities of the country, in line with the respective IEC standard for solar home systems, or
- Accepted as complying with the Technical Standards for component-based systems or solar off-grid powered productive use equipment. MoWE have to in place simple, clear, and transparent technical guidelines to ease of importation and distribution of eligible products of the project. The detail of the technical guideline is stated on annex – 14.

The guideline includes but not limited to:

The technical product criteria, standards, warranty, after sales service and etc. Which are properly established and periodically reviewed by MoWE.

Eligible PSEs will be able to access funding under all three windows of the component, subject to the approval of their respective loan requests by the PFIs.

### **C) Eligibility criteria for sub-loans to consumers (including eligible technologies)**

Households located in rural and deep rural areas will be eligible to receive funding through the local currency window, subject to the approval of the respective loan requests by the PFIs or PMFIs.

DBE, with advice from MoWE, will periodically review the specific regional distribution of end-borrowers, to promote coherence with the eligibility criteria for funding PSEs in the value chain, if any. Above all, this review will be done with the interest of ensuring equity in the access to financing for households. DBE will work closely with PFIs and PMFIs to incentivize service provision in underserved priority areas.

Funding to households will be provided for the acquisition, installation, maintenance, repair and recycling of Tier 1, IEC compliant OGS systems, including solar kits, solar home systems, and solar powered standalone productive use systems and appliances, as per the technical criteria established by MoWE.

---

Tier 1 – as per the definition of NEP 2 is at least 4 hours of electricity per day is available (including at least 1 hour per evening), and capacity is sufficient to power task lighting and phone charging or a radio. Sources that can be used to meet these requirements include an SLS, a solar home system (SHS), a mini-grid (a small-scale and isolated distribution network that provides electricity to local communities or a group of households), and the national grid.<sup>1</sup>

### **3.4. Conditions on Financial Intermediation**

#### **3.4.1 Subsidiary Financing Agreement (SFA) between MoF and DBE**

To facilitate the establishment of the credit facility, the MoF will make the corresponding proceeds of the credit available to DBE under the subsidiary financing agreement (SFA).

Provisions of this agreement include:

- Obligation of DBE to ensure that the credit facility is implemented and operated in accordance with the provisions of the World Bank Anti-corruption guidelines.
- DBE will solicit expressions of interest from, and enlist for participation in the ADELE, the PFIs operating in the targeted group and interested in carrying out the intermediation of the ADELE-credit facility.
- DBE will enter into agreements with each PFI in order to allow PFIs to carry out on-lending activities to final beneficiaries of the program.

#### **3.4.2 Conditions on DBE as Implementing Agency**

DBE will on-lend the funds to PFIs (selected according to eligibility criteria agreed with the World Bank) using ADELE Credit Facility Agreements (ADELE-CFA) that will define the credit conditions.

#### **3.4.3 Conditions of Sub-Credit Agreements (SCAs) between PFIs and PSEs**

PFIs will grant sub-credits to eligible final beneficiaries of the project. The TA component will help the PFI to adopt and implement new methodologies as needed.

No minimum or maximum credits sizes will be imposed on PFIs for its on-lending activities to PSEs, beyond the requirements established by the National Bank of Ethiopia (NBE) directives. Average loan size will be monitored by PFIs and reported to DBE.

PFIs will determine the interest rate and all other loan and disbursements conditions of the final beneficiaries sub credits and will assume the full credit risk. The interest rate will be adequate to cover their costs of borrowing from the DBE plus a risk-adjusted spread, operating costs and profit margin.

#### **3.4.4 Conditions on PFIs Sub-credits to PSEs**

- PSEs must meet the eligibility criteria identified in Section 3.3.6.2 (B)
- Sub-credits will be denominated in Ethiopian Birr (ETB).
- Sub-credits may be made for both working capital and investment purposes.

- Sub-credits will be made under a sub-credit agreement (SCA) between the PFI and the beneficiary using PFI's own loan agreement forms and including the standard provision report
- The PFI will bear the full risk of the sub-credits.
- PFIs will be free to set their own PSE on-lending rates on the basis of market conditions and without interest rate caps.
- The PFI will freely determine final borrowers' interest rates and other credit conditions.
- The following minimum requirements will apply:
  - Maximum credit amounts should be set on an individual basis by each PFI.
  - Any sub-credit can be subject to ex-post review by DBE or the Bank in order to verify compliance with the subsidiary and sub-credit agreement terms.
- PSEs and sub-projects need to comply with environmental laws and standards in force in Ethiopia, as well as with the World Bank policy on environmental assessment using the Environmental Social Framework developed for ADELE (see the detail.).

#### **4. Foreign Currency Window**

The foreign currency window will provide access to foreign currency funds for the importation of quality-certified off-grid systems and components, particularly off-grid solar systems Tier 1<sup>2</sup> and above and solar-powered Productive Use Equipment (PUE). The project seeks to address the shortage of foreign currency for the importation, and corresponding domestic supply, of Off-Grid Solar (OGS) systems by providing dedicated foreign currency resources. This window will provide importers access to foreign currency funds to underwrite the issuance of Letter of Credit (LC) for the import of OGS systems and components that comply with International Electro-technical Commission (IEC) quality standards.

##### **4.1. Implementation Details of Foreign Currency Window**

Participation in the project is open for all interested commercial banks provided that meet the eligibility criteria set by DBE and agreed by the World Bank. Commercial banks that will not be included during the first assessment part of the ADELE PFI network will be able to join at any later point by submitting a Letter of Interest to the Project Steering Committee, through DBE, providing that they comply with the eligibility criteria.

###### **a) Loan Determination to Selected Participating Private Commercial banks**

The loan determination will be up on the loan application and annual work plan by each selected PFIs. T Up on fulfillment of eligibility requirements, the loan determination to each PFI will be based on past experience, portfolio size, absorption capacity, outreach, etc.

##### **Credit Rationing**

If, in any program year, the aggregate of qualifying credit limits of PFIs exceeds the credit fund allocation to DBE for that year, available funds will be rationed among the qualifying PFIs on transparent criteria to be prepared by the PMT and approved by the concerned approval team DBE from time to time.

The criteria for rationing would include, among other things;

- Quality of outreach
  - Number of clients
  - Extension of outreach to access deficit areas, poor households and women

---

<sup>2</sup>The load level is very low load (3-49W), indicative electric appliances (task lighting, phone charging, radio)

- Operational and financial performance

**b) Loan approval process of DBE**

A DBE approval team<sup>3</sup> will be responsible for approval of the PFI's credit request, after the required appraisal has been conducted by PMT.

**c) Credit Facility Agreement signing**

Once the eligibility has been confirmed and loan has been approved, a PFI will sign an ADELE Project Credit Facility Agreement (ADELE-CFAs) with DBE.

Once signed, the ADELE-CFA will allow eligible PFIs to have access to finance on specified terms for eligible beneficiaries and eligible projects.

The funds available to PFIs will depend upon the availability of funds at DBE.

The ability of PFIs to lend to final beneficiaries will be assessed prior to the signing of the credit agreement.

PFIs must start and remain in compliance with applicable laws and regulations and with the eligibility criteria for PFIs (See section 3.3.6.1)

ADELE-CFAs will be denominated in Ethiopian Birr (ETB).

Additional loan may be approved by DBE, up on PFIs' request; to cover the foreign currency fluctuation that may happen from the date of ADELE-CFA signing and commercial invoices arrival.

The sub-credits will be defined as working capital and/or capital investment for the importation of quality-certified off-grid systems and components, particularly off-grid solar systems Tier 1 and above and solar-powered Productive Use Equipment (PUE). The PFIs will establish freely all conditions and terms of the sub-credits, including interest rates, services charges and fees and tenor and repayment arrangements, and assume the full credit risks for those operations.

**d) Disbursement process from DBE to PFIs**

---

<sup>3</sup> Loan approval team will be assigned by the Bank

The funds dedicated to the credit facility of the project are allocated to DBE for the purpose of extending lines of credit to final beneficiaries through PFIs on conditions, and in accordance with criteria as set forth in Sections 3.3.

Disbursement from DBE to PFIs will be made through re-imburement method on the basis of commercial invoice submitted by the PFIs. As a result, each PFI should entertain its respective borrowers from its own foreign currency source and replenish its foreign currency expenditure in relation to OGS products from DBE. The replenishment amount will be in foreign currency which is foreign currency expenditures for import (commercial invoice) including related charges. The minimum reimbursement request by the PFIs will be 20% of the total approved loan amount. In line with ADELE-CFA entered with DBE, denomination of the individual loans of PFIs will be in ETB, equivalent to the foreign currency amount of the commercial invoice, including related charges (equivalent of transfer amount to PFI). Applicable disbursement date will be the date foreign currency transfer to PFI. For this purpose, disbursement on individual loan (RFD) of PFIs will be captured at DBE after the receipt of respective foreign currency transfer advice.

The total foreign currency re-imburement amount shall not exceed the amount stipulated on the ADELE-CFA of respective PFIs. However, there might be request of a re-imburement from PFI above the loan approved and signed in ETB due to foreign currency exchange rate fluctuation. <sup>4</sup> In this case, DBE could facilitate an additional loan (in ETB) for the difference (Z amount in this case) up on the request of PFI.

**e) Utilization of approved loan by PFIs**

The PFIs are required to submit the utilization reports on the monthly basis to DBE within five days of each end of month. DBE will undertake physical follow up on sample basis up to the level of final beneficiaries, as deemed necessary.

DBE will have the responsibility to check and verify on a sample basis that the amount lent to the borrowers was actually spent for the intended purposes by verifying the declaration from custom.

---

<sup>4</sup>For example, during the CFA signing a loan of ETB X amount is contracted for equivalent of Y USD amount. During the LC opening and resultant re-imburement request, the ETB amount could increase to X+Z amount for the same Y USD amount due to the exchange rate fluctuation.



## **4.2. Sub-Credit Loan Process**

### **A) Sub-credit**

Sub-credits are defined as working capital and investment loans for the purposes of the importation of off-grid solar systems, particularly Tier 1 and above, and solar powered productive use equipment (PUE) and components for their assembly advanced to final beneficiaries by the PFI, which will be financed by the project.

### **B) Sub-borrowers**

Final beneficiaries of sub-credits will use the resources to finance for the intended purpose according to the guidelines and criteria established in the OM.

### **C) Eligible products**

The eligible products to be imported are off-grid solar systems Tier 1 and above and solar-powered Productive Use Equipment (PUE), and components for their assembly, authorized under MoWE established technical guidelines and criteria for importation and financing under the ADELE program. MoWE through DBE will provide the technical criteria for the systems and parts to be imported under funding from the Foreign Exchange window. PFIs will confirm eligibility of the proposed importations under those guidelines prior to requesting funding under the Foreign Exchange window and will document compliance with the technical criteria in the funding application process. PFIs, DBE and MoWE reserve the right for ex-post review of compliance. Noncompliance with the established technical criteria for the importation of systems and parts will result in the cancelation of the funding request and recovery of funds provided.

## **4.3. Eligibility Criteria for Private Sector Enterprises**

- Applicants with projects engaged in the importation of quality-certified off-grid systems and components, particularly off-grid solar systems Tier 1<sup>5</sup> and above and solar-powered Productive Use Equipment (PUE) can apply for loans and advances by filing out standard loan application format of the PFI
- An applicant and/or any of its shareholders who have 5% or more shares or subsidiaries entitled to apply for loans must not have any non-performing loans

---

<sup>5</sup> The load level is very low load (3-49W), indicative electric appliances (task lighting, phone charging, radio) Please refer annex 14 for technical issue

- The applicant must not have been convicted of tax evasion, or a breach of foreign exchange control regulation
- The applicant has to present all the documents/information demanded by the PFIs
- The applicant has to import/manufacture/distribute/maintain and/or repair/recycle or related business activities of IEC quality verified products of tier 1 and/or above including productive use technologies or wanting to set-up this business line. Funding request should be commensurate with expected business volume.
- The support of new business lines will be based on a detailed business plan and assessment of the PSE's capacity to implement the plan.

### **Products**

The PSEs/SMEs have to make sure that all the imported /manufactured products have to be off-grid solar systems Tier 1 (and above) and/or productive use technology products, which fulfill IEC quality standards and/or applicable appliance standards for PUE technology, and their technical characteristics have been approved by MoWE based on the 'at entry' eligibility criteria defined. These products have to be distributed to the intended off grid areas and the detailed reports of the distribution of the products have to be reported monthly to PFIs, DBE and MOWE.

### **After sales service and warranty honoring:**

- In case of factory default/malfunctioning of the distributed products the importer has to maintain/replace the products in the warranty period without any cost or must replace parts or products as per the terms of the warranty.
- After the warranty period the PSEs/SMEs must continue to provide or have provisions for after sales care, including system repair and access to spare parts.
- Old used battery and all electronics waste have to be managed/handled according to Environment Forest Climate Change Commission's procedures

### **On Lending Terms of PFIs**

The PFIs are free to set the terms such as interest rate, penalty interest, loan maturity and like to their end-borrowers.

## **5. Local Currency Window**

The local currency window will provide working capital and/or capital investment for OGS and productive use market players and support consumer financing options for end users including households, smallholder farmers, and small businesses, in rural and deep rural areas. Eligible financing under the local currency window will include funding for the assembly, distribution, sale, maintenance, and recycling of quality-certified off-grid systems, as well as the funding of working capital to provide seller financing, for example through PayGo schemes, and the acquisition of such systems by end users. Borrowers will have to be formal businesses in compliance with all applicable registration and formalization requirements and an established track record, or private households in rural and deep rural areas. Provided eligibility criteria are met, the credit risk and decisions on credit conditions will rest solely with the granting PFI. The local currency window will be funded with **reflows from the transactions of the foreign exchange window**.

### **5.1. Implementation Details of Local Currency Window**

The Local Currency Window will provide on-lending to eligible PFIs, including commercial banks and regulated micro-finance institutions.

The local currency window will be funded by reflows from the transactions in the foreign currency window, which will be on-lend to the selected PFI's, Loan Determination to Selected Participating PFIs

The loan determination will be based upon the loan application and annual work plan presented by each selected PFIs.

#### **A) Credit Rationing**

If, in any program year, the aggregate of qualifying credit limits of PFIs exceeds the credit fund allocation to DBE for that year, available funds will be rationed among the qualifying PFIs on transparent criteria to be prepared by the PMT and approved by the concerned approval team DBE from time to time.

The criteria for rationing would include, among other things;

- Quality of outreach
  - Number of clients
  - Extension of outreach to access deficit areas, poor households and women

- Operational and financial performance

#### **B) Loan approval process of DBE**

A DBE approval team will be responsible for approval of the PFI's credit request, after the required appraisal has been conducted by the PMT.

#### **C) Credit Facility Agreement signing**

Once the eligibility has been confirmed and loan has been approved, a PFI will sign an ADELE\_CFA with DBE – specifically External Fund and Credit Management Directorate. The ADELE-CFA will specify terms of access to finance, mutual responsibilities and terms and conditions of participation of the PFI in the project.

The ADELE CFA will also establish the eligibility criteria for beneficiaries and projects to be financed under the local currency window by the PFIs. The PFIs will enter in sub-credit agreements with the respective end-borrowers, in order for the latter to receive financing under the project.

- The funds available to PFIs will depend upon the availability of funds to DBE.
- The ability of PFIs to lend to final beneficiaries will be assessed prior to the signing of the credit agreement.
- PFIs must start and remain in compliance with applicable laws and regulations and with the eligibility criteria for PFIs (See section 3.3.6.1)
- ADELE-CFAs will be denominated in Ethiopian Birr (ETB).
- DBE will on-lend funds to PFIs according to the terms and conditions stated in the Subsidiary Financing Agreement (SFA) between MoF and DBE.

#### **D) Disbursement Process from DBE to PFIs**

Funds may be transferred by DBE from the designated account to the PFI's account for onward remittance to approved sub-borrowers only on the basis of a documented rolling two quarters (six months) forecast prepared by the PFI.

## **5.2. Assessment of Loan Amount for MFIs**

The loan amount will initially be credit capped for the MFIs based on their financial strength and perceived absorptive capacity

## **5.3. Final Beneficiaries' Loan Process**

- The loan process of final beneficiaries will depend and be governed as per the PFIs' internal policies and procedures. However, the PFIs shall meet the minimum requirements from PSEs end.
- This includes the processes for customer identification, selection and appraisal, as well as follow-up. But also the loan appraisal and origination process itself, including documentation requirements, evaluation process, approval process, disbursement etc.
- As part of the PFI eligibility process DBE will review policies, procedures and capacities of the PFI – and determine whether those are adequate.
- However, PFIs will carry the credit risk and therefore should be in position to apply their criteria along the process, within the framework of prudential norms etc.
- The loan process is designed to serve the PFI with the shortest possible time, minimum cost and high quality. This process starts its function by attracting and recruiting customers to apply for loans and ends at loan collection

## **Monthly reports of the Products**

- All manufactured/imported products have to be reported to the PFI and MOWE on monthly bases.
- All the products sold by the companies have to be reported to PFI and MOWE on a bimonthly basis as per the provided reporting format which possibly supports the carbon revenue.

## **Assessment of Loan amount**

The loan amount will initially be credit capped for the PFIs based on their financial strength and perceived absorptive capacity.

## **On Lending Terms of PFIs to end-borrowers**

The PFIs are free to set the terms of their on-lending conditions to end-borrowers, such as interest rate, penalty interest, loan maturity and repayment structure, as well as any other fees commissions or charges for the transaction and requirements on documentation and supervision, according to their established policies and the prevailing regulatory instructions.

PFI's on-lending conditions will not require prior approval by DBE or be subject to review. However, PFIs will report, as requested by DBE, on the on-lending conditions for project documentation and reporting purposes.

## **6. Risk-Sharing Mechanism**

The risk-sharing mechanism (RSM) will enhance access to and reduce the costs of financing for businesses, by providing default coverage for loans to OGS companies. Access to financing for OGS companies is constrained by the financial sector's risk aversion to attend to the off-grid sector and their long-standing preference to secure business lending with immovable collateral, principally real estate. This limits access in particular for emerging solar businesses and women-owned and led companies, with lesser access to collateral. The RSM will provide partial loan guarantees for loans extended by eligible PFIs to businesses in the OGS value chain to supplement collateral coverage. For approved operations, the fund will assume a limited first-loss guarantee, allowing a wider set of businesses access to finance.

The Risk Sharing Mechanism will be accessible to qualified, eligible PFIs to support on-lending to private enterprises. It will not provide guarantee coverage for on-lending to end-consumer households.

The risk sharing mechanism will cover up-to one half of the collateral coverage requirements of the Banks, after considering the borrowers pledges. It means, the borrower must pledge a minimum of 50% immovable collateral and then DBE and the PFI will provide the remaining portion of collateral requirement coverage in equal parts. This window will be funded by 'reflows' from the transactions in the foreign and local currency windows.

The following is a summary of the RSM:

- i) Maximum guarantee amount by DBE will be equivalent to 25% of the principal of the secured loan, up to the total outstanding principal at the time of default, net of legally registered and enforceable collateral.
- ii) Maximum tenure is two (2) years for working capital and maximum of five (5) years for project loan.
- iii) There is no maximum interest rate, but interest rates will be monitored to ensure that borrowers are charged a market rate of interest. The borrower should have projected

free cash flow equal to at least 125% of the loan payment to qualify for a guarantee on the loan.

- iv) The borrower must pledge immovable collateral, for coverage of no less than 50% of the loan amount, using the liquidation (forced sale) value of the collateral. All collateral must be registered on the electronic collateral registry.
- v) The guarantee will cover a portion of the principal balance outstanding at the time of default. It will not cover interest, default interest or any fees or charges levied by the lender.
- vi) The guarantee fee will be 2% of the guaranteed portion of the loan, collected at one time up on the guarantee issuance. The fee will be subject to periodic review, considering market conditions, claim events and operational costs of managing the RSM.

#### **6.1. Eligibility Criteria of Partial Risk Sharing Mechanism**

The borrower/SMEs/applicants/PSEs shall satisfy all of the following in order to be considered eligible for a RSM for partial loan guarantees to reduce credit constraints driven by the commercial banks' significant risk aversion to lend to the off-grid market and a traditionally strong focus on (immovable) collateral and high coverage ratios in their lending decisions:

- i) Applicants with projects engaged in the importation, commercialization, distribution, installation, maintenance or recycling of off-grid systems Tier 1 and above and solar powered productive use equipment (PUE), for risk-sharing mechanism for partial loan guarantees;
- ii) Applicant and/or any of its shareholders or subsidiaries entitled to apply for RSM for partial loan guarantees must not have any non-performing loans within the financial system.
- iii) The applicant for partial loan guarantees must have never been convicted of tax evasion, or breach of foreign exchange control regulation;
- iv) The applicant loan request from PFIs under the partial loan guarantees shall be bankable;
- v) The applicant shall produce evidence of a valid trade license to engage on renewable energy and energy efficient product business;

- vi) The applicant shall provide immovable fixed asset collateral a minimum of 50% of the principal loan amount for working capital loan and there may not require of additional collateral for project-based loan applications.
- vii) The valuation of the collateral will be handled based on the bankers' association collateral valuation manual;
- viii) All eligibility requirement for ADELE Credit Line is also valid for partial loan guarantee beneficiaries;

### **Obligation of the Applicant**

Partial risk sharing mechanism Applicant shall:

- Provide accurate information, accompanied with all supporting documents, to DBE on their business, Off-grid solar importation and distribution activities;
- Exercise due care so as to ensure that the partial risk sharing mechanism is used for the purposes they are earmarked for;
- Repay the entire amount of the outstanding loan and interest thereof to PFIs on or before due date of the partial risk sharing mechanism issuance expiry date;
- In case of difficulties experienced in importing and distribution of Off-grid solar products, they should discuss the problem with the borrower and propose course of action to DBE;

## **7. Environment and Social Safeguard**

### **7.1. Introduction**

This Environmental and Social Section of Project Operational Manual (E&S POM) has been set up to ensure the Establishment and maintenance of the environmental and social management system by DBE and its sub FI's according to national and the World Bank requirements. PFIs and PSEs are required to have capabilities to implement their systems in a manner consistent with the guidance provided in this operational manual and DBE's Environment and Social Management System (ESMS). If a PFI and PSEs does not have the capacity to implement the ESMS, DBE will provide guidance in supporting the PFIs and PSEs to develop action plans to meet those requirements.

The Stakeholders Engagement Plan (SEP), Environmental and Social Commitment Plan (ESCP) and Environmental and Social Risk Assessment for the project were disclosed on the



DBE websites; /<https://www.dbe.com.et/index.php/documents> / on January 20, 2021 and January 22, 2021, and as well as on the World Bank’s external website on January 22, 2021. Therefore, this section of the POM will provide specific guidance and procedures to implement subcomponent 3.2. in line with environmental and social risk management instruments, including DBE ESMS and the general POM.

## **7.2. Relevant National Environment and Social, Legal and Institutional Lists**

The POM will be implemented under the following national, legal requirements and institutions.

- The Constitution of the FDRE
- Growth and Transformation Plan (GTP) II Energy and environment sector
- Relevant Policies of Ethiopia including
  - Environment Policy of Ethiopia
  - National Social Protection Policy of Ethiopia
  - Ethiopian Water Resources Management Policy
  - Energy Policy of Ethiopia
- Strategies
  - Conservation Strategy of Ethiopia
  - Ethiopia’s Climate-resilient Green Economy Strategy
- Regulations, Proclamations and Procedural Guidelines
  - Labor Proclamation, Proclamation No.1156/2019
  - Hazardous Waste Management and Disposal Control Proclamation No.1090/2018
- Solid Waste Management Proclamation No. 5131/2007
  - Environmental Impact Assessment Proclamation (Proclamation No. 299/2002)
  - Environmental Pollution Control Proclamation (Proclamation No. 300/2002)
  - A Proclamation to Provide for the Establishment of Environmental Protection Organs (Proclamation No. 295/2002)
  - Industrial Chemical Registration & Administration Proclamation No. 1075/2018
  - Energy (Amendment) Proclamation No. 1085/2018
  - Electrical and Electronic Waste Management and Disposal Council of Ministers Regulation No. 425/2018
  - Council of Ministers Regulation No. 429/2018 to control lead in paint

- Water Resources Management Proclamation (197/2000)
- Proclamation on Research and Conservation of Cultural Heritage (No. 209/2000)
- Environmental Impact Assessment Procedural Guidelines Series (Series 1 and 2)
- Administrative/Institutional Framework
  - Environmental authority
  - The Ministry of Water, and Energy
  - Regional Environmental Bureaus
  - Development Bank of Ethiopia (DBE) districts and branches etc.

### **7.3. World Bank Environmental and Social - Standards**

The World Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making considering the risk factors that helps to identify the project risks classification, component 3:

Solar home systems for households, small-holder farmers and small businesses with subcomponent 3.2. Access to Finance to Increase Off-grid Solar Penetration risks is classified as Substantial as the overall the project risk classification is substantial.

The risks and impacts of the sub-component will be managed in accordance with the national and the World Bank Environmental and social Framework (ESF) as well as the WBG environment, health, and safety guidelines.

The WB Environmental and Social Standards applicable to the project and linked to the implementation of subcomponent 3.1 and 3. 2. are summarized below. For details refer:

<http://www.worldbank.org/en/projects-operations/environmental-and-social-framework>

**ESS1: Assessment and Management of Environmental and Social Risks** and Impacts sets out the Borrower’s responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs).

**ESS2: Labor and Working Conditions** recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the

development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions.

**ESS3: Resource Efficiency and Pollution Prevention and Management** recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life-cycle.

**ESS4: Community Health and Safety** addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

**ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement:** ESS5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons.

Sub-Component 3.2 is unlikely to require land acquisition and cause access restrictions. However, the DBE will ensure the coverage of land acquisition and livelihoods impacts requirements consistent with ESS5 in its respective PFI ESMS. The DBE will further ensure that monitoring and reporting on land acquisition and resettlement activities are conducted separately and involve Woreda authorities. Where necessary, the applicable instruments, such as a Resettlement Action Plan (RAP) will be prepared.

**ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources** recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. ESS6 also addresses sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a project.

Sub-Component 3.2. activities are unlikely to impact biodiversity. However, the DBE will cause the development and implementation of measures and actions to assess and manage risks and impacts on biodiversity, including identification of different types of habitat and circumstances. These measures will be laid out in site-specific ESMPs where applicable.

**ESS7:** Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities. ESS7 is also meant to avoid adverse impacts of projects on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.

Sub-component 3.2. targets rural and underserved regions of the country. Underserved communities may be particularly vulnerable if their resources are transformed, impacted and also, they may not be able to afford the project benefits like other project beneficiaries. In such cases, it is required to take account of obtaining the FPIC procedure of affected Historically Underserved Communities as describe in ESS 7. The DBE adopts the requirements of ES7 as part of this ESMS and assesses and implements the necessary requirements to ensure that all subprojects comply with ESS7. Where necessary, an Indigenous Peoples Plan (IPP) will be prepared.

**ESS8:** Cultural Heritage recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. ESS8 sets out measures designed to protect cultural heritage throughout the project life-cycle.

Even though there will not be any construction activity to be implemented under sub-component 3.2, ESS8 applies where individual houses are identified that have important physical cultural resources that necessitates protection in the course of implementation of the sub-project. Furthermore, Chance Find procedures have been developed for this ESMS (see Annex 13 of the ESMS document) and will be implemented as part of the site-specific ESMPs.

**ESS9:** Financial Intermediaries (FIs) recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects, and monitor portfolio risk, as appropriate to the nature of intermediated financing. The way in which the FI will manage its portfolio will take various forms, depending on a number of considerations, including the capacity of the FI and

the nature and scope of the funding to be provided by the FI.

FIs are required to develop and maintain, in the form of an Environmental and Social Management System (ESMS), effective environmental and social systems, procedures, and capacity for assessing, managing, and monitoring risks and impacts of subprojects, as well as responsibly managing overall portfolio risk.

The DBE has prepared ESMS and will establish and maintain the organizational capacity and competency required for implementing the ESMS.

**ESS10: Stakeholder Engagement and Information Disclosure:** ESS10 recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. It consolidates WB engagement provisions including meaningful consultation, access to information, and grievance redressing mechanisms.

The objectives of ESS10 are the following:

- To establish a systematic approach to stakeholder engagements that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties.
- To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance.
- To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them.
- To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format

A Stakeholder Engagement Plan (SEP) has been developed for the ADELE Project describing the timing and methods of engagement with the project-affected communities and other stakeholders throughout the life cycle of the Project. The DBE will implement the SEP throughout the project's lifespan. The DBE will further provide a GRM that is laid out to also handle GBV cases.

#### **7.4. Environmental and Social Management System**

As one of the WB requirements on investment projects considering financial intermediaries i.e., the Development Bank of Ethiopia (DBE) is required to monitor and manage the environmental and social risks and impacts of their portfolio and subprojects, and monitor portfolio risk, as appropriate to the nature of the project. Thus, DBE is required to develop and maintain an effective Environmental and Social Management System (ESMS), with adequate resources, procedures and capacity for assessing, managing, and monitoring risks and impacts of subprojects, as well as managing overall portfolio risk in a responsible manner. Furthermore, the private sectors and FI's who receive fund from DBE will also adopt and establish an ESMS and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts.

- a) All subprojects will be prepared and implemented in accordance with relevant environmental and social national and local laws and regulations.
- b) All subprojects will be screened against exclusions in the legal agreement.
- c) All subprojects will be screened for environmental and social risks and impacts.
- d) All subprojects which involve resettlement (unless the risks or impacts of such resettlement are minor), adverse risks or impacts on Indigenous Peoples or significant risks or impacts on the environment, community health and safety, labor and working conditions, biodiversity or cultural heritage will apply relevant requirements of ESSs.

An Environmental and Social Management System (ESMS) outlines and institutes a set of policies, procedures, tools and internal capacity to identify and manage its exposure to the environmental and social risks of its clients/investors. It states the commitment of the institute to environmental and social management and explains its procedures for identifying, assessing and managing environmental and social risks of financial transactions. It also defines the decision-making process, describes the roles, and responsibilities of staff for doing so and states the documentation and recordkeeping requirements. It provides the necessary guidance to the institution for screening and categorizing transactions based on their environmental and social risk, conducting environmental and social due diligence and monitoring the client's/ investor's environmental and social performance. An ESMS makes sure that the sub-project implementers' activities are in compliance with the environmental and social standards of the World Bank.

Thus, DBE has developed an ESMS and needs to be maintained throughout the project implementation.. Furthermore, the EFCMD will assign one environmental and social focal

person, who provide support for the implementation of the ESMS and inform to the world bank

### **Solar Battery and E-Waste Management**

Environmental risks and impacts inherent to the sub-component 3.2 of ADELE project are largely related to potential negative impacts that may occur during and after implementation like, inappropriate e-waste management, occupational health and safety impacts, interest conflicts, etc.

Major potential environmental and safety concerns arising from the improper management of the lead acid battery of SHS have to be put in place with the necessary protective mechanism. Effective battery and e-waste management implementation will start from awareness creations to different institutions, experts, micro technicians, storekeepers, beneficiaries and any other involved in battery and e-waste collection, storage, transportation and recycling. For ADELE sub-project 3.2, the awareness creation may be handled by DBE, MoWE, EEU, environmental authority, PSEs, NGOs and/or any other organization.

Country-level waste management proclamations and guidelines have been developed by the Environment and Climate Change Commission. All used batteries have to be collected and stored in a safe manner. DBE will ensure that all stakeholders/beneficiaries/ shall take into account and implement project activities as per the requirements of the ESMS and BMP.

As ADELE sub-component 3.2, the environmental and social protective mechanisms, this operational manual endorsed/will endorse any guideline/regulation /procedures and any proclamation that has been declared by the authorities. Furthermore, DBE shall follow, monitor and evaluate the sub-project safeguard activities according to the ESMS which could be prepared for this purpose. The Labor Management Procedure (LMP), Stakeholder Engagement Plan (SEP), Environmental and Social Commitment Plan (ESCP) and Environmental and Social Risk Assessment for the project which were disclosed on DBE official website can be implemented during sub-project activities.

For the current OM purposes, DBE are taken to consider the environmental and social issues as the following principles.

#### **7.5. The Environmental and Social Guiding Principles**

The overall Environmental and Social Risk Management and related guiding principles of the sub-project 3.2 operations and implementations is listed as the following, but not limited to:-

- DBE could be supporting the PFIs through capacity building activities follow-up, monitoring, evaluation, and recommendation on the sub-project safeguard activities and progresses;
- Participating FIs have a responsibility to adopt and take into consideration any environmental and social safeguard tools which are required to protect or minimize risks that had been developed by DBE.
- Any PFIs shall develop ESMP of their institution which can help to prevent or minimize any risks that can cause during project activities
- It's recommended that PFIs could have their own environmental and social professional who can facilitate and supporting any safeguard activities of the sub-project
- Participating CBEs and MFIs should be checked and recommending while PSEs work proposal have taken in consider the safeguard issues; the e-waste management, occupational health and labor and working condition outline
- The loan processes should be applied to who fulfill the preset criteria of safeguards with loan eligibility procedures;
- All imported, and distributed status of solar product should be reported for DBE by PFIs according to the format;
- Participating FIs should do safeguard follow up, monitoring and evaluation and reporting the results for DBE. DBE can support the PFIs on the activities.



Panel and other parts of the system should be reported for DBE according to the following table.

Non-functional/ damaged battery and solar panel reporting format/template

Name of PSE \_\_\_\_\_

Date \_\_\_\_\_

Numb	Brand name	Model	Serial Number	Capacity (w)	Problem of the system	Action taken / if storing ... ➔	storage place/site	Storage address - Name ..... Phone .....	contact person	Remark
1										

Prepared by

Approved by

Name -----

Name -----

Signature -----

Signature -----

**Activities excluded from financing**

<b>Subproject that are not eligible for funding under ADELE Project</b>
Subprojects that require a full ESIA under the Ethiopian directives
Subprojects that will block the access to water points etc. used by others
Subprojects that will cause potential health and safety risks to the community that cannot be mitigated
Subprojects that lead to the use of devices containing PCBs (polychlorinated biphenyls) or any application of a persistent organic pollutant
Subprojects that affect the quality of surface water, groundwater and drinking water sources.
Sub-projects that would have adverse and disproportional impacts on the disadvantaged or vulnerable people or Historically Underserved Peoples by not given them access to benefits and opportunities resulting from the project
Subproject that will contravene international and regional conventions on environmental and social issues
Subprojects that cause large-scale physical disturbance of the site or the surroundings
Subprojects that leads to the project lead to incompatible uses or social conflicts between different users
Subprojects that have OHS risks that cannot be mitigated
Subprojects that leads to an increase in social inequalities
Subprojects which fail to meet loan management and operation manuals
Subprojects which recourse to child and forced labor
Subprojects that could adversely affect critical habitats
Subprojects that would require large-scale physical resettlement and/or livelihood restoration and land acquisition
Subprojects that would require significant amount of water that could affect community needs
Subprojects that could have a significant adverse affect on water quality

**PFI Risk Rating**

The DBE will assess the PFIs according to the proposed activities portfolio financed under the project and not based on the entire portfolio of the PFI. However, it will assess the general PFI ESMS system, capacity and performance available to implement the proposed activities. The DBE will adopt the following risk classification for the assessments of PFIs:

- High Risk: Business activities with potential significantly adverse E&S risks and/or impacts that are diverse, irreversible, or unprecedented. High risk activities may involve significant impacts on physical, biological, ecosystem, socioeconomic, or cultural resources; or are located in environmentally sensitive ecosystems. High risk activities that require a full environmental and social impact assessment (ESIA) under the Ethiopian directive are excluded from financing.
- Substantial Risk: Business activities with potential adverse E&S risks and impacts that are potentially irreversible; lack of available ESMS and capacity for its implementation, as well as lack of E&S performance.
- Moderate Risk: Business activities with business activities that have potential limited adverse E&S risks or impacts that are few, generally site-specific, largely reversible, and readily addressed through mitigation measures; minor gaps in the ESMS, capacity to implement the ESMS and E&S performance.
- Low Risk: Business activities includes financial exposure to business activities that predominantly have minimal or no adverse E&S risks and impacts; and/or the PFI has significant capacity to implement its ESMS, and the ESMS is fit for purpose.

PFI's classified as 'High Risk' will be excluded from financing.

#### Recommendation for Approval

If the risk rating is high or substantial, an in-depth review of the PFI's ESMS, activity portfolio proposed under this Project and its compliance with laws and regulations and applicable standards will be undertaken, as well as an assessment of the PFI's capacity to manage the identified E&S risks and impacts. The review includes the following:

- Review of PFI's ESMS or any related policy and procedures against the proposed lending activities (loans or guarantees);
- Review of PFI's capacity to implement E&S requirements;
- Review of available information, records, and documentation related to the E&S risks and impacts of the business activities;
- Site inspections and interviews of sub-implementers/clients and relevant stakeholders, where appropriate;
- Analysis of the PFI's portfolio and its E&S performance in relation to the applicable E&S requirements;
- Identification of any gaps, and corresponding additional measures and actions to ensure E&S compliance.

Along with financial and technical documents for the potential clients and subprojects to be financed under this Project, the PFIs will submit all relevant certificates to DBE. These documents will be further reviewed and registered in the next steps of the loan application process.

Recommendations for improvements will be provided if necessary. The DBE will work with the PFIs to determine possible improvements based on the outcomes of the E&S due diligence.

Following this, the DBE's E&S Risk Management Experts provide a recommendation for approval to the Approval Committee. If the risk rating is moderate or low, the recommendation will be provided without further review.

#### **Loan Agreement between PFIs and Clients**

In the loan agreement between the PFIs and the client, applicable E&S requirements and specific conditions shall be included (see Annex 16 of the DBE's ADELE ESMS: a Table for Standard E&S Terms and Conditions for Types of Financial Instruments and Subprojects for standard terms and conditions).

### **7.6. Monitoring and Reporting of E&S Risks of Sub-Projects and Portfolio**

The main monitoring responsibilities and inspection activities will sit with the DBE, which will administer the overall project-related E&S monitoring and implementation as laid out in the ESMS.

The E&S risk management experts at DBE will handle the monitoring, inspection and reporting aspects on a day-to-day basis. E&S-related monitoring will focus on compliance of the DBE with its ESMS, including DBE labor management, and the PFIs and their implementation of their ESMS.

The E&S risk management experts will assess the compliance of DBE activities against the general ADELE ESCP, this ESMS, the ADELE Project SEP, the Security Risk Management Plan, as well as PFI compliance with PFI ESMS and subproject specific ESMPs. They will report any non-compliance to the DBE Project Coordinator. Indicators for subproject E&S compliance are identified in the

above generic ESMPs (see Tables 4 and 5), they will be used as a baseline for assessing progress on the DBE ESMS and PFI ESMSs implementation. Monitoring indicators will depend on specific activity contexts and may be adjusted depending on the subproject.

DBE will further periodically review adequacy and implementation effectiveness of the PFIs ESMS, including the processes and the results of the E&S due diligence conducted by the PFIs on its clients, PFIs organizational competency and capacity, on-going and consistent compliance with applicable E&S requirements, E&S records maintenance and availability of supporting documentation, etc.

Kindly see the details of Monitoring arrangement form Section 6.

### **Reporting**

The DBE will provide quarterly and annual reports to the World Bank covering the environmental, social, health and safety performance of the project, it's E&S performance against the relevant sections in the Project ESCP, including the status of preparation and implementation of ESMPs, security commitments, stakeholder consultations, and results of the grievance redress mechanism (GRM).

The PFIs will send E&S performance reports to the DBE on a quarterly basis (see Annex 6, reporting format for E&S performance of PFIs). PSEs and MFIs, will be required to submit monthly reports on their E&S performance to the respective PFI.

Reporting schedule of Sub-component 3.2

Type of Report	Entity to prepare report	Entity to receive report	Timeline for submission of report
Quarterly and annual E&S Performance Report (the fourth quarterly report is the annual report)	DBE	World Bank	21 days after the end of a quarter
Quarterly E&S performance report	PFI	DBE	15 days after the end of the quarter
Monthly E&S performance report	Client	PFI	10 days after the end of each month

**Accident and Incident:**

The World Bank needs to be notified promptly (48 hours) of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the environment, communities, the public or workers, including, inter alia, cases of SEA/SH and accidents that result in death, serious or multiple injuries (by the DBE or any other party). The DBE will need to provide sufficient detail regarding the scope, severity, and possible causes of the incident or accident, indicating immediate measures taken or that are planned to be taken to address it. The report should also include any information provided by any PFI or client.

All other incidents need to be reported in the monthly or quarterly E&S performance report, with a Root Cause Analysis (RCA) and a detailed action plan, prepared by the DBE, PFI or client. An incident register should be maintained at all installation sites.

### 7.7. Feedback and Grievance Redress Mechanism

The sub-project is assumed to have some degree of conflict and cumulative impact on the health (due to lead acid battery, broken solar panel etc.) and safety of workers/micro technicians (during battery collection, transportation and storing). The expected impact on the health and safety of these workers is anticipated to be a moderate, short term to long term and direct adverse impact. This may if it's not due to lead acid battery. To handle these kinds of problems/gaps/ the World Bank grievance redress mechanism shall be implemented and the woreda level grievance committee will be established or strengthened by project implementers; commercial banks, MFIs, DBE and others.

Any grievances raised by project affected people or any other stakeholders will be redressed as recommended by country rule of law and project GRM. DBE and project implementer shall ensure that any complaints or inquiries raised by local people/ project affected people or any other stakeholders are documented properly and brought to the attention of project management and properly addressed by the responsible body. To this effect, DBE and the PFI shall set up and/or strengthen “Grievance Hearing committee” at Woreda level. Therefore, specific complaints and concerns from local people or any other stakeholder would be documented properly and referred to the project management for appropriate follow-up and addressing the complaints or grievances in accordance with grievance handling procedures as per the Grievance application format attached on annex 8 of DBE’s ADELE ESMS.

#### GRM Steps (adopted from the ESMS)

Step	Responsibility of	Description	Time Frame	Other information
<ul style="list-style-type: none"> <li>Establishment of GRM Committees at Kebele level</li> </ul>	<ul style="list-style-type: none"> <li>PFI GRM Focal Point</li> </ul>	<ul style="list-style-type: none"> <li>Committee to comprise of local elders, beneficiaries, women, youth representatives.</li> </ul>	<ul style="list-style-type: none"> <li>Before project implementation</li> </ul>	<ul style="list-style-type: none"> <li>Training will be provided by PFI</li> </ul>
<ul style="list-style-type: none"> <li>Identification of grievance</li> </ul>	<ul style="list-style-type: none"> <li>PFI GRM Focal Point</li> </ul>	<ul style="list-style-type: none"> <li>Face-to-face, telephone, letter, email, mail, website, recorded</li> </ul>	<ul style="list-style-type: none"> <li>1 day</li> </ul>	<ul style="list-style-type: none"> <li>Telephone number, email address</li> </ul>

Step	Responsibility of	Description	Time Frame	Other information
		d during public community meeting, etc.		
<ul style="list-style-type: none"> <li>Grievance assessed and logged</li> </ul>	<ul style="list-style-type: none"> <li>PFI GRM Focal Point</li> </ul>	<ul style="list-style-type: none"> <li>Significance assessed and grievance logged in a grievance logbook</li> <li>Grievances in regard to sexual exploitation and abuse and sexual harassment to be treated confidentially. Only the nature of the complaint and the outcome will be recorded. Woreda Women, Children and Youth Offices will be responsible for the handling of these grievances.</li> </ul>	<ul style="list-style-type: none"> <li>3-6 days</li> </ul>	<ul style="list-style-type: none"> <li>Significance criteria:                             <ul style="list-style-type: none"> <li>Level 1: one-off event</li> <li>Level 2: complaint is widespread or repeated</li> <li>Level 3: complaint breaches law/policy</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Grievance is acknowledged</li> </ul>	<ul style="list-style-type: none"> <li>PFI GRM Focal Point</li> </ul>	<ul style="list-style-type: none"> <li>Acknowledgement through appropriate medium</li> </ul>	<ul style="list-style-type: none"> <li>3 days</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<ul style="list-style-type: none"> <li>Preparation of response</li> </ul>	<ul style="list-style-type: none"> <li>Assigned party</li> </ul>	<ul style="list-style-type: none"> <li>Grievance assigned to appropriate party for resolution (GRM Committee, PFI,</li> </ul>	<ul style="list-style-type: none"> <li>4-8 days</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>



Operations Manual – Access to Distributed Electricity and Lighting in Ethiopia

Step	Responsibility of	Description	Time Frame	Other information
		PSE, MFI etc.)		
<ul style="list-style-type: none"> <li>▪ Response signed-off</li> </ul>	<ul style="list-style-type: none"> <li>▪ PFI</li> </ul>	<ul style="list-style-type: none"> <li>▪ Redress action is approved by PFI</li> </ul>	<ul style="list-style-type: none"> <li>▪ 8-15 days</li> </ul>	<ul style="list-style-type: none"> <li>▪</li> </ul>
<ul style="list-style-type: none"> <li>▪ Implementation / communication of response</li> </ul>	<ul style="list-style-type: none"> <li>▪ PFI GRM Focal Point</li> </ul>	<ul style="list-style-type: none"> <li>▪ Redress action implemented and update of progress on resolution communicated to complainant</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5-9 days</li> </ul>	<ul style="list-style-type: none"> <li>▪</li> </ul>

**Annex 1 Monthly Reporting Format for End-Users Data**

**Name of Importer \_\_\_\_\_**  
**Access for Distributed Electricity and Lighting in Ethiopia (ADELE) Project**  
**Monthly Sales Report - Solar Technology (Solar Home System (SHS) / Solar Lantern)**  
**Reporting Period: \_\_\_\_\_**

**Monthly Reporting Format for End-Users Data**

S/N	Name of End User	Sex	Location				Technology Type		Technology Brand Name	Size in Wp	Product Serial No.	Date of Purchase	Tell/Cell Phone No
			Region	Zone	Wereda	Kebele	SHS	Solar Lantern					
1													
2													
3													
4													
5													
6													

Prepared by: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Tel: \_\_\_\_\_

Checked by: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Tel: \_\_\_\_\_



**Annex 3: Technical Guideline<sup>6</sup>**

**Technical Guideline**  
**For**  
**The Importation and Distribution of Solar Home Products**  
**Under**  
**ADELE Project Credit Line (Sub-Component 3.2)**  
  
**Version 1**

---

<sup>6</sup> As part of its roles and responsibilities in the ADELE project- sub component 3.2, this technical guideline is prepared by Ministry of Water and Energy.

## **Background**

The Government of Ethiopia adopted the National Electrification Program (NEP) to achieve universal energy access by 2030 through a combination of grid (65%) and off-grid connections (35%). The Access to Distributed Electricity and Lighting in Ethiopia (ADELE) project is designed to support Ethiopia's Electrification Program (NEP) through off-grid technology by incorporating public and private sector efforts. In NEP 2.0 strategy, the Government had identified 9 million off-grid connections that are required to achieve coverage of 35% of the population through off-grid.

Component 3 (Solar home systems for households, small-holder farmers, and small businesses) under ADELE is to be implemented by the Ministry of Water and Energy (MoWE) and Development Bank of Ethiopia (DBE) with an aim of driving affordability and energy access in deep rural and underserved areas. This will be done through facilitating foreign currency to importers of quality-certified systems; providing local currency financing to cooperatives, OGS (Off Grid Solar) companies, distributors, and consumers to increase adoption of quality OGS products on affordable terms; and providing results-based financing (RBF) to eligible OGS companies and cooperatives, with a focus on deep-rural areas. In addition, gender equality and citizen engagement are a critical focus, especially regarding female entrepreneurship, access to finance, productive uses of energy and customer engagement and satisfaction.

This technical guideline is part of the DBE operation manual for the implementation of ADELE project subcomponent 3.2. DBE will act as a wholesale bank and participating financial institutions (PFI) will lend to the off-grid solar companies. This guideline will act as a tool to check and verify importation and distribution documents of solar home systems under the credit line.

As per the general operation manual of the project MoWE is responsible to establish minimum technical standards for SHS and components to be procured by the off-grid solar companies. So the applications for the importations of Solar home System, Solar lantern and Components for assembly companies will be technically evaluated based on the guideline developed here using steps explained in Annex1 by the Participating Financing Institutions. In this guideline the minimum technical standard for the productive use of Energy Technology and components for

solar manufacturing are not stated in detail. The participating financing institutions can't be able to evaluate technically these technologies so as per the communication with the World Bank application for the importation of productive use of Energy and Components for manufacturing of Solar Products will be technically evaluated by technical team established by the Ministry of Water and Energy as indicated in Annex 5 and Annex 6. The Ministry will prepare the minimum standard for productive use of Energy Technology and components for solar manufacturing until March 31, 2023 and amend this technical guideline incorporating experience from the first phase disbursement.

### **Guideline for eligible product quality checking procedures**

This document provides basic information about solar energy kits, product certification, and instructions for determining if solar energy kits qualify for access to the credit facility administered by DBE under the WB (World Bank) funded ADELE project.

### **Products eligible for importation under the ADELE facility:**

- must be quality certified to meet international quality standards (IEC TS 62257-9-8), which are harmonized with the Ethiopian national standards, and
- must at a minimum qualify as Tier 1<sup>7</sup> or above as per [the Sustainable Energy for ALL \(SEforALL\) Multi-Tier Framework \(MTF\)](#). See annex 2 for performance measurement standards and annex 7 checklist and Minimum requirements of Solar home system and Solar lanterns
- must be VeraSol certified or part of a certified product family and approved by the PVOC agent of the country assigned by the Ministry of Trade. See annex 3 for VeraSol certification requirement.

### **What is a solar energy kit?**

A solar energy kit (SEK) consists of a set of components that are sold together in a 'plug and play' set-up, including a solar photovoltaic (PV) module, a charge control unit, a battery, cables,

---

<sup>7</sup>

Tier 1 – as per the definition of NEP 2 is at least 4 hours of electricity per day available (including at least 1 hour each evening), and capacity is sufficient to power task lighting and phone charging or a radio. Sources that can be used to meet these requirements include an SLS, a solar home system (SHS), a mini-grid (a small-scale and isolated distribution network that provides electricity to local communities or a group of households), and the national grid.

switches, connectors and protective devices, lighting, and optional appliances such as a TV, fan, or radio.

- The peak power rating of the PV module is less than or equal to 350 watts.
- The maximum voltage of the PV module and any other components cannot exceed 35V

**What documentation is required to confirm product eligibility?**

To prove an SEK meets the quality requirements, the loan applicants (company) need to provide to the PFI:

- Valid VeraSol product certificate
- Letter to PFI certifying products meet at **a minimum** Tier 1 performance requirements, signed by a legal representative of the applicant company.
- Letter of intent from manufacturer submitted by the loan applicant/distributor/company. Letter contents as indicated on annex 4.
- Proforma invoice and product specification sheet (must include product model name and number)

**Troubleshooting and FAQ**

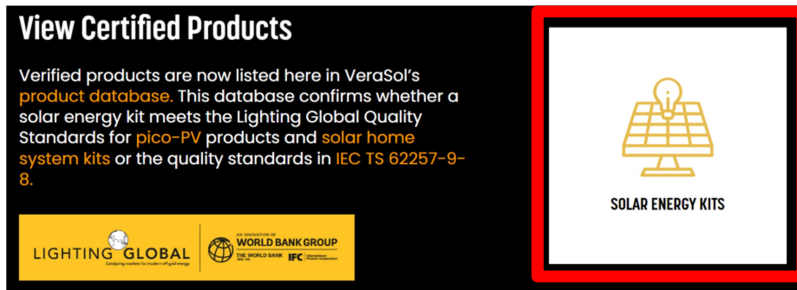
- **Q:** What should you do if you cannot find the SEK in the VeraSol database?
- **A:** If you cannot find the SEK in the database, it may be part of a product family. Search the database by the name of the manufacturer, looking for certified product families. Open Specification Books for families from the manufacturer in question to see if the SEK is part of a family. If you are still unable to find the SEK in question in the VeraSol database, contact VeraSol by sending an email to [QA@VeraSol.org](mailto:QA@VeraSol.org).
  
- **Q:** What if the applicant submits a VeraSol Product Certificate that has expired?
- **A:** Search for the product in the VeraSol database. If you find the SEK in question in the database, that means that the product is currently VeraSol certified. If you do not find the SEK in the database, it may be an indication that the certification has expired. You can look for the product in VeraSol's "[Previously Certified Products](#)" page. If you are unable to find the product listed in the database nor the Previously Certified Products page, please email VeraSol for assistance [QA@VeraSol.org](mailto:QA@VeraSol.org)

- **Q:** What if the name and/or model number in the applicant’s submitted documentation does not match the VeraSol Product Certificate?
- **A:** Communicate with the applicant to inform them of the discrepancy and request additional documentation.
  
- **Q:** What is a family of products?
- **A:** In the context of SEKs (Solar Energy Kits), a family of products is a set of interchangeable components that combine to make two or more complete kits. Product families allow customers to “mix and match” the components to create kits that meet the users’ energy and financial needs. All components and systems in a product family are considered to have met the applicable quality standards.

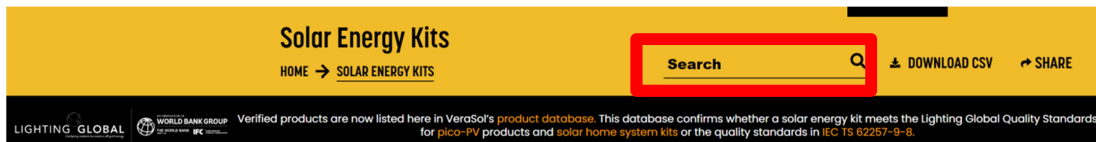
### Annex 1: Step-by-step determination of product eligibility

#### I. Confirm that the SEK is VeraSol certified.

- a. Go to VeraSol’s database of certified solar energy kits: [www.verasol.org/products/sek](http://www.verasol.org/products/sek)



- b. Use the search function to enter the name of the SEK, the product family, or the brand in question.



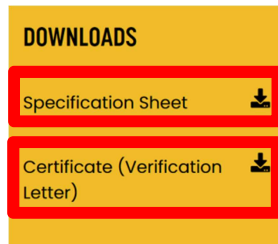
- c. Identify the SEK or product family in the VeraSol database.
  - i. Click on the product image to access a summary of key information, the VeraSol Standardized Specification Sheet or Book, and the VeraSol Product Certificate



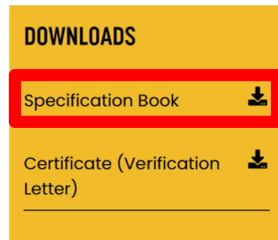
- ii. If the SEK in question is part of a product family, the following icon will appear at the bottom of the listing.



- d. If the SEK in question is certified individually, i.e., not part of a product family.
  - i. Download the product’s Specification Sheet and Certificate, saving the documents in the applicant’s dossier.



- e. If the SEK in question is part of a product family, i.e., not certified individually.
  - i. Open the Specification Book for the product family.



- ii. Refer to the “List of Covered Systems” table on the final page of the Specification Book
- iii. If the name / model number of the SEK in question is shown in the table, save the Specification Book and VeraSol Product Certificate to the applicant’s dossier.

## II. Confirm that the SEK in question matches the VeraSol Product Certificate

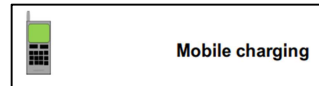
Compare documentation provided by the applicant (refer to section 2E above) to the VeraSol Product Certificate

- The name and model number in the submitted documentation must match the VeraSol Product Certificate

**III. Determine whether the SEK in question provides at least Tier 1 energy services.**

To determine whether a product meets the performance requirements, the person assessing eligibility will enter information from the VeraSol Standardized Specification Sheet (or Specification Book for product families) into the “Tier 1 Assessment Tool” spreadsheet. The following are instructions for where to find the required information.

- **Mobile phone charging capability (yes/no)**



- Specification Sheet: Top left of first page
- Specification Book: Last page in the table under “Includes ports for charging?”

Available Daily Electrical Energy and Port Information		
Product		
Magic Solar Family		
Product A **	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
Product B	33	yes
Magic Solar Player/Charger IV	26	yes

\*\*Tested as full systems. Individual SSS available on VeraSol website.

- **Total light output (lm)**

- Specification Sheet: “Lighting Details” section

LIGHTING DETAILS									
Lamp name	Number of lamps	Number of settings	Setting	Light output (lm)	Lumen efficacy <sup>a</sup> (lm/W)	CRI <sup>f</sup>	CCT <sup>g</sup>	Distribution type	Lumen maintenance <sup>h</sup>
9.5 W Lamp (lamp holder separation)	2	2	High	930	110	84	6200	Wide	99%

- Specification Book:
  1. Identify type and quantity of light sources that are included with the SEK in “List of Covered Systems” table

List of Covered Systems	
Product	

System Name	Number of each component included in each system				
	LED bulb	15W PV	10W PV	12Ah battery	6Ah battery
Product A **	3	1	--	1	--
Product B	3	--	1	--	1

\*\*Tested as full systems. Individual SSS available on VeraSol website.

2. “Measured Luminous Flux” for applicable light sources are specified in “Light Sources” table.

Name / Model Number	Luminous Flux Rating (lm)		Measured Luminous Flux (lm)		Measured Lamp Efficacy (lm/W)	
	δ	High	δ	High	δ	High
	LED bulb	200	--	230	--	120
Integrated light	--	60	--	76	--	54

3. Multiply the number of light sources in the SEK by the measured luminous flux for the corresponding light sources. In the above example, the total light output is 3 “LED bulbs” multiplied by 230 lm for each bulb: (3 x 230 = 690 total lumens)

- **Solar run time for brightest setting (hrs.)**

- Specification Sheet only: “Run time after a typical day of solar charging” in the “Performance Details” table.

PERFORMANCE DETAILS				Run time after a typical day of solar charging (assuming 5kWh/m <sup>2</sup> /day)	
VeraSol Certified?	Included in Kit?	Appliance <sup>a</sup>	Description	Used alone <sup>b</sup>	Used in combination <sup>c</sup>
yes	included	Main lighting unit	Two light points on High totaling 1860 lm and 17 W power	18 hours	8.7 hours
yes	not included	Fan	standing fan (16" diameter, 13 W power)	33 hours	12 hours
no	not included	TV	larger than 16" diagonal (18 W power consumption while in use)	25 hours	4.7 hours
no	not included	Smart phone	Smart phone (5.7 Wh battery)	43 full charge(s)	2.5 full charge(s)
no	not included	Mobile phone	Mobile phone (3.7 Wh battery)	63 full charge(s)	--

- **Total lumen-hours available per solar day on brightest setting (lm-hr./day)**

- Specification Sheet only: “Performance measure” table at the bottom of the “Performance Details” section

Performance measure	Brightness setting: high
Lighting full battery run time <sup>a</sup> for main unit (hours)	18
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	33500

- **Solar module power rating (W)**

- Specification Sheet: “Solar Details” section

SOLAR DETAILS	
PV module type	Polycrystalline silicon
PV maximum power	150 watts

- Specification Book:

1. Identify the type and quantity of PV module included with the SEK in “List of Covered Systems” table

**List of Covered Systems**  
**Product**

System Name	Number of each component included in each system				
	LED bulb	15W PV	10W PV	12Ah battery	6Ah battery
<b>Product A **</b>	3	1	--	1	--
<b>Product B</b>	3	--	1	--	1

\*\*Tested as full systems. Individual SSS available on VeraSol website.

2. The solar module power rating for the PV module in question is specified under “Measured Peak Power at STC” in “PV module” table.

<b>PV Module</b>		
Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
15W PV	15	14
10W PV	10	9.6

- **Daily energy service (Wh/day)**

- Specification Sheet: “Available daily electrical energy” specified in “Performance Details” section.

Available daily electrical energy <sup>2</sup> (Wh/day)	400
---	-----

- Specification Book: “Available daily electrical energy” specified in “Available Daily Electrical Energy and Port Information” section.

**Available Daily Electrical Energy and Port Information**  
**Product**

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
<b>Product A **</b>	33	yes
<b>Product B</b>	26	yes

\*\*Tested as full systems. Individual SSS available on VeraSol website.

## Annex 2: Performance Requirement Standards

To meet the performance requirements for access to the DBE credit facility, i.e., meet the minimum service level of Tier 1 as defined by SEforAll/ World Bank an SEK must at **a minimum**:

- Provide lighting of at least 200 lumens for at least 4-5 hours a day.
- Be capable of charging a mobile phone for at least 2 hours per day.
- Fulfill one of the following:
  - At least 1000 lumen-hours of lighting per day of solar charging (lm-hr/day), AND

- Solar run time of at least 5 hours for the brightest light setting (hr/day)
- PV module peak power of at least 5 watts (W), AND
- At least 12 watt-hours of energy available per day of solar charging (Wh/day)

### **Annex 3: VeraSol Certification Requirements**

VeraSol certified products are:

- tested at an accredited laboratory using approved test methods (IEC TS 62257-9-5)
- certified to meet international quality standards (IEC TS 62257-9-8), which are harmonized with the Ethiopian national standards.
- listed in the international [VeraSol's online database of certified solar energy kits](#)

### **Annex 4: Letter of intent from manufacturer**

- Letter to be duly signed and stamped.
- A confirmation that the distributor is in good standing with manufacturer.
- Manufacturer and distributor have mutually agreed to get into an agreement for the purchase of solar products (latest product specification sheet attached and signed)
- The letter should specify the number of units, per unit cost, total quantity to be purchased, total amount of proforma invoice, payment terms (if any) and shipment timeline.
- Proforma invoice duly signed and stamped by manufacturer

**Manufacturer's Letter of Intent**

**<To be printed on Manufacturer's Letterhead>**

This letter is to certify that <Distributor/Loan Applicant Name as it appears in the bank record> is in good standing with us. In order to promote the sales and distribution of Solar Products, we have mutually agreed to the following terms:

We <Manufacturer's legal entity name that is providing the goods> have agreed to sell the below-mentioned solar products at the terms mentioned below to <Distributor>:

<b>Name of the product</b>	<b>HSN Code</b>	<b>Unit Price</b>	<b>Purchase Quantity</b>	<b>Total Amount</b>	<b>Payment Terms</b>	<b>Estd. Date of Shipment (dd/mm/yyyy)</b>

We certify that:

1. Each of the above-mentioned products is Verasol certified, and the certificate(s) is/are attached hereby.
2. The latest Technical Specification Sheet(s) of each product is provided hereby.

Thank you.

**Authorized Signature and Stamp**  
**<Manufacturer>**

*Address & Contact Details:*

**Authorized Signature and Stamp**  
**<Distributor>**

*Address & Contact Details:*

**Annex 5: Selection Methodology for Productive use of Energy Technologies**

In this guideline PUE (Productive Uses of Energy) Technologies is defined as solar-powered technologies that adds values and generate incomes of Small holder farmers and small business owners from the agricultural sector and small business activities. PUE are eligible technologies to be imported under the ADELE Project Credit line if the business proposal of the importing companies financially and technically accepted. The financial aspect of the companies' proposal will be evaluated by the Participating Financing Institution and the Technical component of the proposal will be evaluated by the Ministry of Water and Energy. The Ministry of water and Energy will assign dedicated team to evaluate technically including eligibility of the technology, quality, standard and certification of the technologies and recommend to the bank on the

acceptance of applications for the importing of PUE technologies. So Companies with accepted Financial and technical proposal are allowed to import Productive use of Energy Technologies which are also quality certified by the PVOC companies assigned by the Ministry of Trade and Regional Integration.

#### **Annex 6: Components for Solar Manufacturing Companies**

Under the ADELE Project Credit line Solar Manufacturing companies are eligible to import solar manufacturing Components or materials. The imported materials will be Semiconductor materials such as silicon's, capacitors, conductors, Resistors, Inductors, Transistors, Diodes, battery management, Microcontrollers, DC/AC Power controllers, Wire and connectors LED Drivers, DC Bulb Plastic cases, etc. which will be an input materials to manufacture solar panels, Batteries, Invertors and controlling systems of Solar home system and Solar Lantern products. The materials to be imported should be quality certified by the International Electro technical Commission/IEC or other third international Organizations. The Solar manufacturing companies are eligible to import solar manufacturing component if their proposal is technically and financially qualified. The financial proposal will be evaluated by the Participating Financing Institution and the Technical Proposal will be evaluated by the Ministry of Water and Energy. The Ministry will assign dedicated team who has experience in the solar industry to evaluate the Proposal of Solar manufacturing companies and recommend for the approval of the technical acceptance of the application for importing of the components.

**Annex 7: Checklist and Minimum Requirements form**

No	Checklist and Minimum requirements for Solar Home System and Solar Lantern	Remark
<b>I</b>	<b>For Solar Home Systems and Solar Lanterns</b>	
1.1	<b>Solar Lantern and Pico PV Definition for the purpose of ADELE credit line loan approval:</b> <ul style="list-style-type: none"> <li>• From 5wp up to 9.9Wp</li> <li>• Minimum Single lighting point with 200lm and above</li> <li>• Mobile Charging</li> <li>• Radio(Optional)</li> </ul>	
1.2	<b>Solar Home System has at least the following facilities and features (accepted for ADELE):</b> <ul style="list-style-type: none"> <li>• Ranges b/n 10wp and 350wp</li> <li>• At least two lighting point/lamps with minimum of 200lm each</li> <li>• Mobile Charging</li> <li>• Can power TV (optional)</li> </ul>	
<b>2</b>	<b>Approved quality of the solar technology products</b>	
	<ul style="list-style-type: none"> <li>• Verasol certified and found the in Verasol Database system</li> <li>• The product quality should be also certified by the PVOC companies appointed by Ministry of Trade and Regional Integration</li> <li>• To be checked by quality assurance authority/if necessary</li> </ul>	
<b>3</b>	<b>Approval by the owner of the product</b> <ul style="list-style-type: none"> <li>• Manufacturer Authorization</li> <li>• Manufacturer Commercial invoice</li> <li>• Agent agreement</li> </ul>	
<b>4</b>	<b>License and approval to work on the sector</b> <ul style="list-style-type: none"> <li>• Renewed trade license</li> <li>• Recognition from relevant sector authority</li> </ul>	
<b>5</b>	<b>After sales service:</b> <ul style="list-style-type: none"> <li>• Stated and agreed to provide for free at least for two years</li> <li>• Stated to have spare part reserves of the product for replacement for free for at least two years as needed.</li> </ul>	



6	<p><b>Battery Technology</b></p> <ul style="list-style-type: none"> <li>• Lithium ion type for smaller system</li> <li>• Lithium ion battery is preferable but lead acid battery with LV disconnect facility could be accepted for Pico-PV and SHS.</li> </ul>	
7	<p><b>Intervention:</b></p> <p>Area of distribution indicated at least by zone, district, village or locality</p>	
8	<p><b>For second or more time application:</b></p> <ul style="list-style-type: none"> <li>• List of all solar technologies distributed by the previous loan.</li> <li>• Area of solar technology distributed shall be as per the indication in the previous BP.</li> <li>• List of solar lantern or SHS beneficiary households of the previous loan.</li> <li>• Approval from regional/zonal/wereda Energy Office</li> </ul>	
9	<p><b>Product specification:</b></p> <ul style="list-style-type: none"> <li>• PV model specification</li> <li>• Battery Specification</li> <li>• Inverter Specification (if present)</li> <li>• Charge controller Specification (if present separately)</li> </ul>	