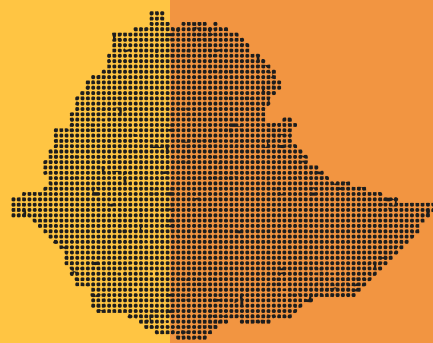




Ethiopia Customs Handbook

For stand-alone solar products and components

2022



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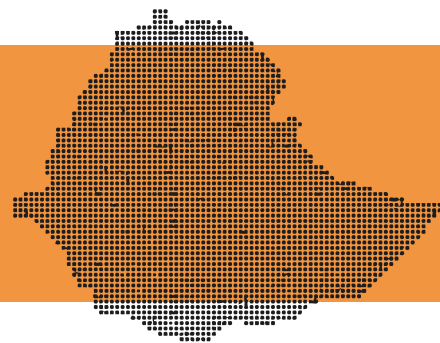
This handbook was compiled by the Africa Clean Energy Technical Assistance Facility and funded by the Foreign, Commonwealth and Development Office (FCDO).

On 13th June 2022, the Ethiopia Custom Commission (ECC) amended the tariff structure for stand alone solar products and components. This handbook includes the new tariffs according to the World Custom Organisation (WCO).

Disclaimer

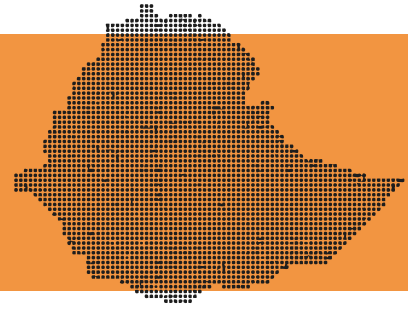
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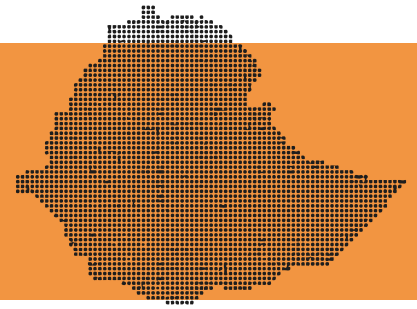
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Acknowledgment



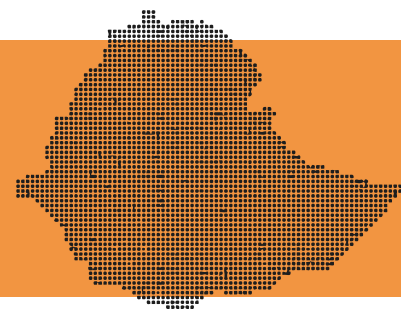
This study is supported by African Clean Energy Technical Assistance Facility (ACE TAF) which is funded by the Government of the United Kingdom. We are very grateful to those organizations that assisted the development of this document on Ethiopian Customs Handbook by providing useful information and guidance. We are very much indebted to the Ministry of Water, Irrigation and Energy for the coordination and establishment of the task force that is composed of representatives of relevant government organizations and the private sector. Our special appreciation also goes to the task force members and the institutions they represented including the Ethiopian Energy Authority, Ministry of Finance, Ministry of Revenue, Ministry of Trade and Industry, Ethiopian Investment Commission, Ethiopian Customs Commission, Energy Market Accelerator, and Ethiopian Solar Energy Development Association.

Abbreviations



AGM	Absorbent Glass Matt
AC	Alternating Current electricity
BoS	Balance of System such as controllers, inverters, batteries, etc
CIF	Cost, Insurance and Freight
CKD	Completely Knocked Down
DC	Direct Current electricity
ECC	Ethiopian Customs Commission
ECAE	Ethiopian Conformity Assessment Enterprise
ESA	Ethiopian Standard Authority
ETB	Ethiopian Birr (Currency of Ethiopia)
GoE	Government of Ethiopia
GSM	Global System for Mobile Communication
LC	Letter of Credit
Li-ion	Lithium-Ion
MDG	Millennium Development Goal
MoF	Ministry of Finance
MoTI	Ministry of Trade and Industry
MOWIE	Ministry of Water, Irrigation and Energy
NEP 2	National Electrification Plan 2
SAS	Off-grid Solar
PCB	Printed Circuit Board
PUE	Productive Use of Energy
PV	Photovoltaic
PVoC	Pre-Export Verification of Conformity
SAS	Stand-alone-System
SHS	Solar Home System
SKD	Simi Knocked Down
SLI	Starting, Lighting, and Ignition
TT	Telegraphic Transfer
USD	US Dollar
VAT	Value Added Tax
WASH	Water, Sanitation and Health
WHT	Withholding Tax
Wp	Watt Peak

1. About this handbook



Ethiopia aims to reach universal electricity access by 2025. Off-grid solar products will play a significant role in providing electricity access to remote and scattered rural communities where extending the national electricity grid would not be economically justified. To meet demand for use by household consumption alone requires over 8 million Stand-Alone Solar (SAS) products to be sold¹. And this will only be to meet the most basic electricity services which are to power lighting and mobile phone charging. For SAS products to make significant development impact, they should be able to also power a range of productive uses. Creating access to SAS products and using them for productive purposes will improve livelihoods and provision of social services in rural areas.

To support Ethiopia's development agenda and enhance access to affordable SAS solutions for consumers, the Government of Ethiopia in 2010 exempted solar products from customs duties. Moreover, the GoE has made several revisions to the tariff exemption for solar to incorporate new technologies and appliances. However, this has further complicated and confused the process. The current tariff exemption still does not clearly define and stipulate the scope of the exemption, and this has created an inconsistent and mixed system of interpretation and enforcement of the exemptions for SAS products.

Currently, there is also a lack of clarity on the exact import tax incentives, importation process for solar products, components and appliances that are imported into Ethiopia. Moreover, there is also lack of clarity in terms of communicating documentation requirements, classification and application of the correct Harmonized System (HS) and tariff for OGS product and components.

Target Audience: The Handbook is aimed at providing relevant information to customs officers, importers of SAS products, assemblers and manufacturers, customs clearing agents and other stakeholders.

Purpose: The Handbook helps the stakeholders clearly understand the customs clearing process, tariff classification, and duty exemptions for a range of SAS products and components. It clearly identifies the full range of SAS products and components, including the application of the correct tariff classification and import tariff rate for each.

This Handbook has 7 sections as follows:

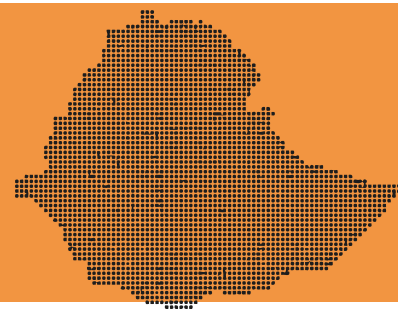
- ☉ After this **Section 1**, which provides an introduction, **Section 2** provides background information on electricity access and the justification for the provision of import tax exemptions on SAS products.
- ☉ **Section 3** details the tax laws that are applicable to the SAS sector in Ethiopia.
- ☉ **Section 4** is a brief overview of the fiscal policy measures on imported and locally manufactured SAS products.
- ☉ **Section 5** focuses on the description of SAS products and components. It provides a clearer understanding of SAS products and the functions of the different components of the system. It also

¹ National Electrification Plan (NEP-2), 2019

provides information on SAS products for various application including consumptive use, productive use and their applications in social services. This section is part of the Customs Handbook where clarity is given on product description so that ambiguity would be avoided in identification of an SAS product or related components.

- 🌀 **Section 6** is a guideline for application of import duty and tax rates on SAS products and components. This section is the core part of the Customs Handbook where clarity is given to avoid inconsistencies in assigning tariffs to SAS products and components.
- 🌀 **Section 7** details the customs clearing process with particular focus on SAS product imports. It maps the custom clearing process and documentations that are required at different stages of the clearing process.

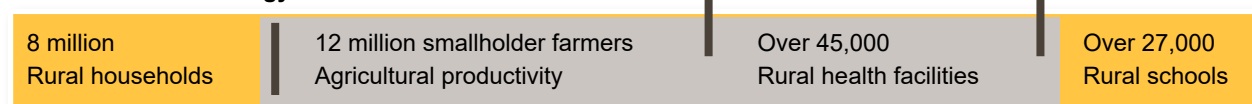
2. Introduction



Electricity is basic need for the human being. Every individual has the right to get power for lighting, cooking, access to information (using radio and TV), communication technologies and for earning a living (like for the agriculture sector). Ministry of Water, Irrigation and Energy is mandated to provide this basic energy services in Ethiopia. However, over 80% of the rural population does not have access to electricity. The National Electrification Plan (NEP 2.0) targets to reach

100% electricity access in Ethiopia by 2025. The NEP 2.0 plan anticipates that 35% of the planned connections, which will be over 8 million households, will be through off-grid means such as Stand-Alone Solar products. Additional use of electricity increase the productivity of the agriculture sector and improvement of social services in these areas would also be met with off-grid electricity technology solutions.

Demand for solar energy in rural areas²



Every household, business and institution needs energy. Most importantly, energy helps to meet the poverty reduction targets in health, education and agriculture. Based on this understanding, the Ethiopia Energy Policy had identified cross-sectoral linkages and the potential to accelerate increased access to modern energy services to support the Government of Ethiopia (GoE) poverty reduction strategies. Each of these sectors also have their development plans, which are in line with the National Development Plan. The key sectors identified are:

Agriculture and rural industry: The livelihoods of over 80 per cent of the Ethiopian population depends on agriculture and related activities. However, the sector is characterised by utilisation of animate power for production and very low levels of productivity. To transform the rural community, the agriculture sector needs to change and start using modern agricultural technologies to improve productivity, reduce post-harvest losses and spoilage and conduct value addition.³ Agriculture sector

policies aim to increase productivity and create markets for agricultural produce.

Most common applications of larger capacity SAS products in agriculture include solar pumps for irrigation and community water supply, and product preservation and processing⁴ appliances.

Health: Many rural health facilities in Ethiopia are limited in their ability to deliver quality health services, partly due to a lack of appropriate, affordable and accessible energy services. The Ethiopia health strategy aims to attain universal primary health care by 2025. There are more than 11,000 health posts in Ethiopia, with over two thirds in off-grid areas. Primary health services in rural health posts require electricity for cold storage of vaccines and other medicines, and powering diagnostic instruments such as centrifuges, microscopes, and sterilisation equipment. Improving access to SAS would boost efforts to attain universal primary health access.

² NEP 2.0.

³ Rocky Mountain Institution (2020). *Capturing the productive use dividend*.

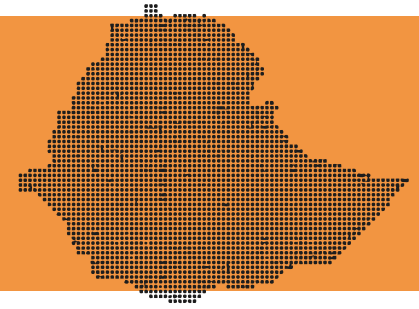
⁴ Veritas (2020). *Building a Market for rural electrification in Ethiopia*.

Education: Energy services have roles to play in the provision of both primary and secondary education, as well as vocational training. The Ethiopia education sector strategy aims to achieve universal primary education by 2025. There are many different services provided by the education sector, which cannot be delivered without access to energy. Primary schools in off-grid areas require electricity to provide basic services including student learning, typing, laboratory practical tests, operating audio-visual equipment, security lights, water and domestic science studies.

Applicable import duties

Taxes and duties that are commonly applied on imported goods are customs duty, sur tax, excise tax, value added tax (VAT) and withholding tax. Most stand-alone solar products are taxed from 0% to 15% customs duty. Ethiopia applies 15 per cent VAT and 3 per cent withholding tax on solar products.

3. Overview of Stand-Alone Solar Fiscal Incentive Package



Fiscal policy measures encourage sectors that have national level economic, social and environmental benefits while discouraging others with localised or short-term results. In terms of the type of fiscal incentives granted by GoE, tax exemption on imported goods is the most common. The government has been applying tax exemptions in the agriculture,

energy and social services sectors to encourage provision of affordable services, especially in the rural communities. The Energy Policy and NEP 2.0 recommend import tax exemptions as one of the fiscal policy actions to make SAS products affordable to meet the universal electrification targets.

Customs Duty Most stand-alone solar products are taxed from 0% to 15% Range: 0%-35%	Sur Tax If duty tax is less than or equal to 15% , then sur tax is automatically zero. Otherwise, it is a fixed 10% for all goods.	Excise Tax It is usually applied to luxury goods imported into the country. Excise tax is not applied on SAS products. Range: 0%-500%	VAT It is applied to all SAS products and components unless imported under the second schedule. It is a fixed 15% for all goods.	Withholding Tax It is a 3% withhold of the income tax that an importer would pay as corporate tax at the close of the fiscal year.
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3.1 Legal basis for tax exemption

In 2010, the Ministry of Finance (MoF) waived customs duties on eight solar products and appliances, these are:

1. Water pumps operating with renewable energy sources
2. Converters/inverters and charge controllers
3. Solar water heaters
4. Storage batteries for renewable energy sources
5. Lanterns
6. Solar home systems
7. Solar PV modules
8. Compact AC/DC florescent lamp

Moreover, MoF had made tariff regulation revisions in 2021 to provide customs duty exemptions to productive use solutions for the agriculture sector, such as egg incubators, crop mills, chicken brooders and milk churning machines.

However, fiscal policy actions, particularly application or exemption of import duties and taxes on SAS products and components, are not consistent with the energy sector plans. Therefore, this handbook has the following objectives:



Transparency: Provide clear information on tariff category and rate that is applicable to SAS products and components based on the current import duty and taxes applicable to SAS products.



Implementation: Address tax exemption implementation issues by clearly describing the most common SAS products and components so that customs officers can have the understanding and knowledge to sufficiently identify SAS products and components.



Training for customs officials: Lack of sufficient understanding to properly identify SAS products and components by customs officers results in wrong assignment of customs tariffs. The handbook supports the Ethiopian Customs Commission to provide regular refresher trainings on SAS products, appliances and components.



3.2 Classification of solar goods

Tariff classification is important to ensure that the declarant pays the correct amount of duty and tax, and receives any tariff advantages. Tariff classification in Ethiopia is adopted from the International Convention on the Harmonized Commodity Description and Coding System, usually referred to as Harmonized System (HS) code.⁵

Once a good has been classified into a tariff line, the importer determines the tariff rate to be applied as per the Ethiopian tariff regulation/book, which is a publication by MoF that lists the import and export tariff rates applied in Ethiopia. The tariff regulation is revised every five years and approved by the Council of Ministers.⁶




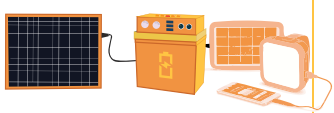
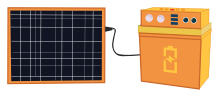

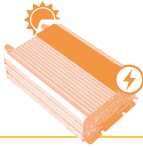

The tariff book is structured as follows:

- 🌀 **First schedule:** Import tariff at basic or standard rates.
- 🌀 **Special customs tariff rates:** Applicable to goods produced in and imported from countries from preferential trade areas like COMESA.
- 🌀 **Investment permits:** OGS products could also be imported under investment permits. Under such cases, zero import duty and taxes may be applied on SAS products. Such a case could be for investment in developing mini-grids, which is out of the scope of this handbook.

⁵ Ethiopian Revenues and Customs Authority, *Ethiopian Customs Guide*, March 2017.

⁶ *ibid.*

Table 1: HS Codes for main SAS products and component

SAS product or component	Capacity	HS Code
Flashlight 	<1Wp	8513.1010
Solar lantern 	1–3 Wp	8513.1010/ 9405.4190/ 9405.4290
Solar pico system 	3–10Wp	9405.4190/9405.4290
Solar home system (SHS) 	>10Wp to several KWp	9405.4190/9405.4290
Solar PV modules (imported) 	From less than 1Wp to several hundred Wp	8541.4300
Charge controller 	5A to several 100A	8537.1010/ 8537.2010
Solar batteries 	From less than 10AH to more than 600AH	8507.2010 (Lead Acid) 8507.3010 (Nickel cadmium) 8507.5010 (Nickel metal hydride) 8507.6010 (Lithium-ion) 8507.8010 (Other accumulators designed for solar energy sources)
Inverter (Static converters for use with solar energy sources) 	10W to several kW	8504.4010
Conductors/cables 		8544.4900/8544.4200



3.3 Quality standards requirements

Stand-alone solar products that are eligible for duty and tax exemptions during importation need to meet certain conditions and present documents to verify that they meet these conditions. The documents are:

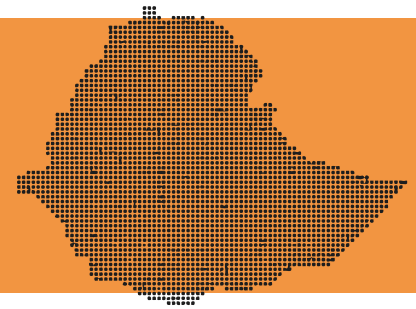
IEC standards certification: SAS products imported as complete products need to present quality certification showing they meet the minimum standards. For smaller systems, such as solar lanterns and pico systems of up to 15Wp, the Lighting Global certification would suffice. For larger systems, other widely accepted international quality certification would be needed.

Pre-Export Verification of Conformity (PVoC) certificate: Recently, Ministry of Trade (MoTI) passed a directive that SAS products

need to be verified before they are exported from the source. MoTI and the Ethiopian Conformity Assessment Enterprise (ECAE) are responsible for the implementation of the programme. Additional information can be found on the ECAE website.

Product certification scheme: The Ethiopian Standards Agency (ESA) is developing a product certification scheme to ensure locally manufactured products meet the required national quality standards. Once the product certification scheme is developed, it is expected to ease the import process for local manufacturers.

4. Solar Importation Guideline



Imported SAS products and components must go through the customs clearing process. This process involves several regulatory processes and permits that involve several government organisations such as MoTI, Ethiopian Customs Commission (ECC), ECAE, Ethiopian Energy Authority (EEA), and Ethiopian Investment Commission (EIC).

4.1 Regulatory bodies for import of solar goods

The following regulatory bodies are involved in the customs clearance of imported solar products.

 <p>ጉምሩክ ኮሚሽን CUSTOMS COMMISSION</p>	<p>Provides customs administration service and collects duties and taxes on imported and exported goods. A clearing agent will fill and submit a Declaration Form.</p> <p>Contact Detail: Clearance offices at every ECC branch under the Customs Valuation and Tariff Classification Directorate</p>
 <p>MINISTRY OF TRADE</p>	<p>Issues import release permit. MoTI, based on national interests and with the approval of the Council of Ministers, can ban the importation or exportation of certain goods and services.</p> <p>Contact Detail: Ministry of Trade, Regulation Implementation Directorate</p>
 <p>የኢትዮጵያ ብሔራዊ ባንክ NATIONAL BANK of ETHIOPIA</p>	<p>Issues bank import permit. Any importer who obtains a foreign currency permit should present the final import customs declaration to the NBE. This is a requirement for importing goods in the future. See Annex 2 for part of sample foreign currency permit request form under the online Ethiopian Electronic Single Window services.</p> <p>Contact Detail: National Bank of Ethiopia, Foreign Exchange Permit</p>
 <p>EIC ETHIOPIAN INVESTMENT COMMISSION የኢትዮጵያ ኢንቨስትመንት ኮሚሽን</p>	<p>Issues and renews investment permit and issues custom duty-free permission letter for solar assemblers and manufactures.</p> <p>Contact Detail: EIC, Customs Tax Free Import Permit Team</p>

Figure 1: Regulatory bodies involved in the customs clearance of imported solar products



4.2 Procedure for clearance of imported goods

Requirements for getting permits and other documents from the different organisations depends on the type of license one has for importation of goods. Investment license for manufacturing and local assembly, import of complete products for wholesale or retail in the local market. Lack of proper coordination and alignment among the different government organisations impacts the customs clearance process, which has three distinct steps:

Step 1: Authorisation of a customs clearing agent,⁹ prepare customs declaration,¹⁰ review the registered declaration data and submission of necessary shipment documents including commercial invoice, airway bill or bill of lading, certificate of origin, and packing list. See Section 4.2.1 for detailed descriptions.

Step 2: Valuation of the imported goods by the assessment team from the customs clearance offices of the ECC at the ports of entry. Once the goods are valued, they will be assigned to the correct tariff category. Assigning the correct tariff category is where inconsistencies are mostly observed.

Step 3: Payment of import duties, taxes (sur tax, VAT and WHT) and service fees, and releasing of goods from the customs storage.

The following chart shows the customs clearance process after the imported goods arrive at the point of entry. For the full importation process of goods into Ethiopia, the Ethiopian Customs Guide will be handy.

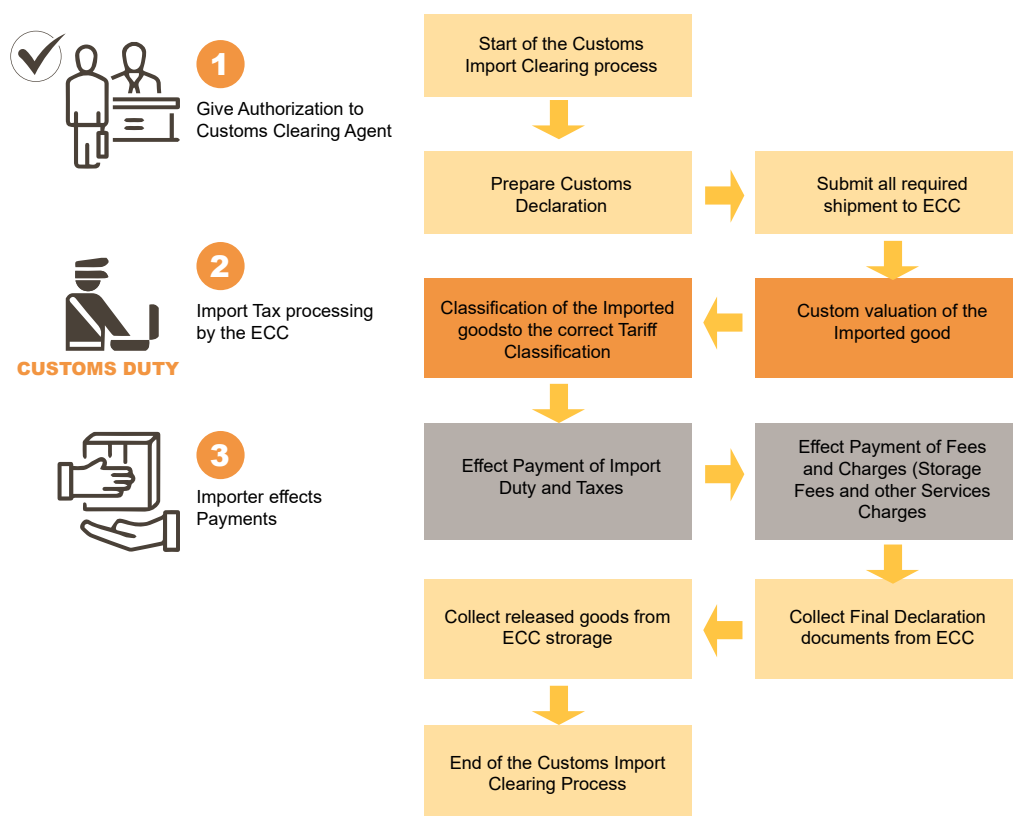


Figure 2: Process flow chart for customs clearing process for SAS products and components

⁹ See a list of customs clearing agents and their contact details in Annex 4.

¹⁰ Complete and register electronic declaration into ERCA's customs management system (either through remote DTI or bureau DTI). Sample Customs Declaration Form is in Annex 1.

4.2.1 Supporting documents

In principle, all import, export, or transit goods need to be declared to customs. The declaration can either be made in writing or electronically. Additionally, the submission of hard copies of the original declaration and supporting documents to the branch clearance office of ECC at the entry port is still required. The following supporting documents shall be submitted with presentation of the goods and declarations of imported goods to customs:

- ☉ Import license or investment permit
- ☉ Proforma invoice for the list of products to be imported, providing the value of imported goods
- ☉ Bank permits for access to foreign currency and insurance coverage
- ☉ Three original chamberised commercial invoices and two copies
- ☉ Three original packing list: describes how the goods are packed during transport
- ☉ One original chamberised certificate of origin and one copy: describes where the goods were originally produced
- ☉ For sea shipment: three original bill of lading (BL) and two non-negotiable BL.

For air transported items: one original airway bill (AWB) and two copies.

For road transported items: one original roadway Bill (RWB) and two copies.

4.3 Customs tariff assessment methods

It is not uncommon for importers to import more than one item in a single consignment. The different items imported together under one shipment document may or may not be used together. In the case of solar products, the energy generator part, which includes the solar panel, may be imported with other items such as TV sets. In situations like this, the customs tariff application can be done

through one of the three assessment methods:

- i) Each item in the consignment is separated under its tariff category and the customs import tariff associated with that specific item applied accordingly,
- ii) The purpose/application of all the items is used to determine the tariff category. For instance, if the OGS product is imported with TV sets, then the whole system could be considered a TV set and the tariff for a TV set would be applied.

The tariff assessment in such situations is usually subjective. One tax officer might apply one of the three assessment methods while another uses a different one for the same types of items. This is one of the most common complaints with regard to import taxes assignment raised by solar companies that import solar products and end-use devices together. Such a loose method of assessment application is also highly liable for rent seeking. In the case of solar products, ECC recommends that customs officers use method one, that is, separating the items into different tariff categories and applying the duty based on the tariff book.



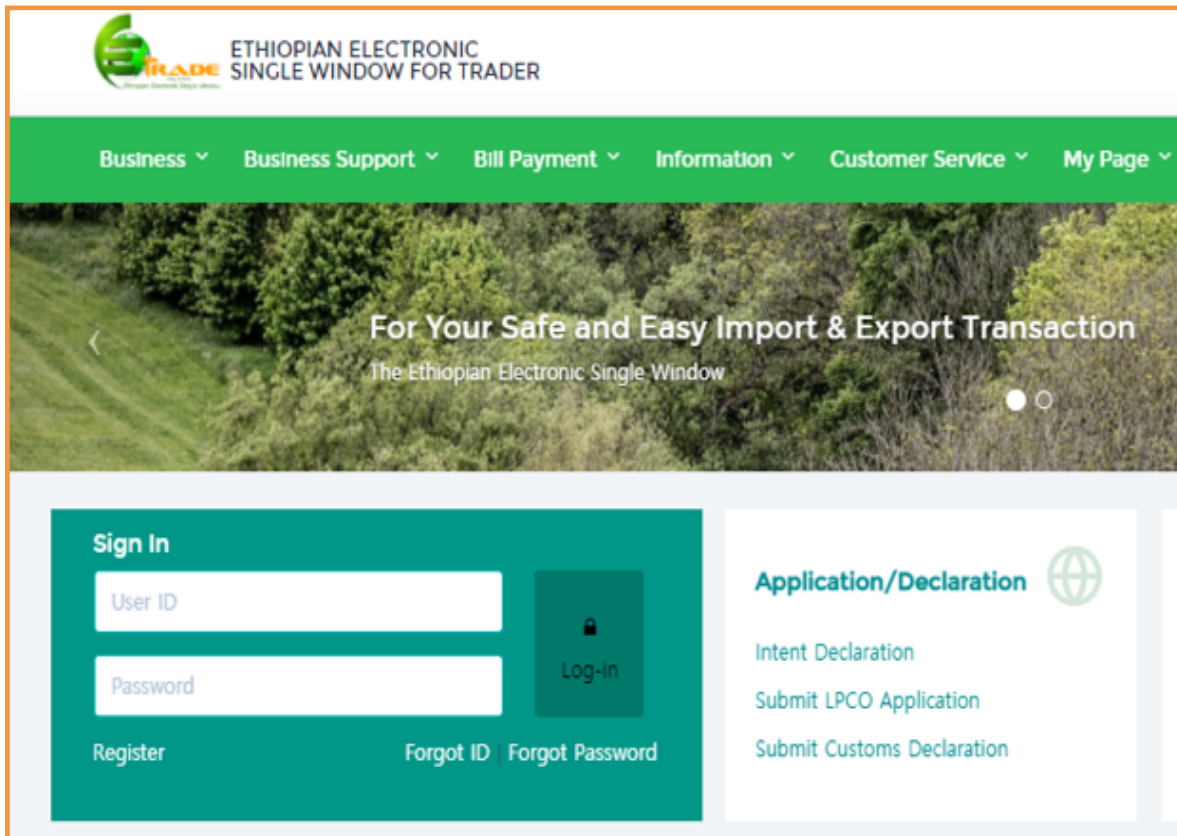
4.4 Ease of doing business

ECC has initiated several measures to facilitate the customs clearance process and reduce transaction costs. Two of them are discussed here.

Electronic Single Window System: ECC has introduced an e-taxing system known as Electronic Single Window (ESW) system to facilitate and speed up the customs clearance processes. It is a one-stop service that allows traders to submit all import and export related requirements in batch.

E-taxing is expected to help overcome some of the hurdles caused by the paper-based process. The system, however, does not resolve problems that are inherent to policy and regulations.

Here is the link to ESW: <https://esw.et/esw-trd/>.

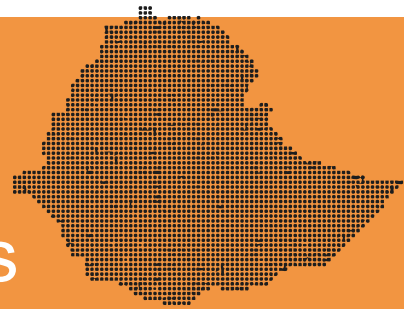


4.5 Complaints and appeals

Solar importers may not agree with the decision of the customs administration. In line with the principles of transparency and fair treatment, opportunities are accorded for submitting appeals/complaints on customs matters. An importer can submit a complaint to the ECC branch offices and can appeal up to the Federal Supreme Court. See Annex 3 for the list of imported goods entry ports where there are ECC branch offices. The appeal procedures is:

1. **ECC's branch offices complaint review section:** An importer submits his/her complaint to the branch office on origin, valuation, description, tariff classification of goods and other customs related matters.
2. **ECC's Complaint Review Section at the head office:** Responsible for reviewing appeals against decisions made at branch offices.
3. **Tax Appeal Commission:** A complainant who is not satisfied with the decision of ECC's Complaint Review Section may make an appeal to the Tax Appeal Commission within one month from the date of such a decision. The commission will not accept the appeal unless the disputed duties and taxes are paid.
4. **Federal High Court:** The Federal High Court makes a determination on the question of law and returns the case to the commission.
5. **Federal Supreme Court:** An appeal to the Federal Supreme Court on the decision of the High Court may be made within 30 days of the decision of the lower court.

5. Most Common Stand-Alone Solar Products and Energy Appliances



As the price for photovoltaic (PV) cells drops, application of solar PV systems has diversified, varying from powering small devices such as wristwatches to powering village level demands and feeding into the national grid. Even though the PV cells are the ones that generate electricity when they interact with light, for them to be usable, a number of additional components – referred to as the balance of system (BoS) – are needed. The purpose of the BoS is to modify, regulate and store the electricity generated so that it can be used to power appliances as well as make it available for later use when there is no sunshine. Without the BoS, usability of a PV cell would be very limited. This section provides

clarification on solar systems and products.

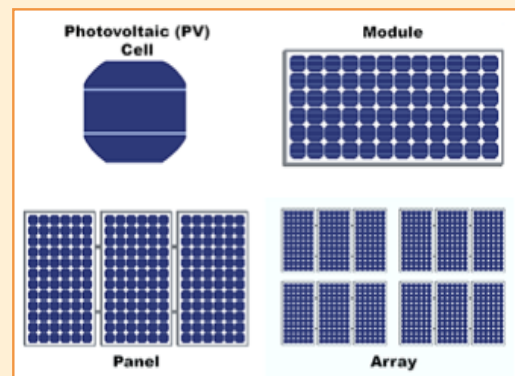


5.1 PV system components

The most common components in a solar PV system are the solar modules, charge controllers or regulators, inverters, storage batteries and electric conductors. A solar PV system may contain all or some of these components. The need for the BoS in a solar PV system depends on the type of electricity load, type of electricity system required (AC or DC), and the time that the electricity is needed. Since this Handbook is designed for SAS, the description of components is limited only to those applied in SAS.

Solar PV module

A solar PV cell, the smallest unit of a solar PV module, generates electricity when it is exposed to light. A solar PV module is made by connecting several solar PV cells together. Several solar PV modules can be combined to form a solar array, which provides much more electricity to supply a larger load.



Charge controller (Charge regulator)

A solar charge controller regulates the charging voltage and the current from the solar module to the storage battery. It also protects the storage battery from possible damage due to over-charging by the solar PV module or over-discharging by the load.





Charge controllers, depending on their design, may also provide other services such as basic battery maintenance by equalising the different cells of the solar battery.

Storage battery

The purpose of an energy storage battery is to store electricity generated by renewable energy sources such as solar and wind energy for later use. Solar energy is available only during the day and is intermittent in nature depending on the season. To improve availability of electricity from

the solar PV system, it needs to be stored. Solar batteries that are used for this purpose need to be deep cycle, which means that much of the energy stored in the battery can be drawn for use without causing harm to it. These batteries are designed to release a low current for a long time while vehicle batteries are designed to release large amounts of current for a very short time.

Table 2: Major types of solar batteries

Type of battery	Description
 <p>Flooded lead acid battery</p>	<p>Uses liquid sulfuric acid electrolyte and lead electrodes. It can be sealed, making it maintenance free, or it can be unsealed with frequent checking and adding of electrolyte or distilled water being needed. They have very thick electrode plates, which allow for deep discharging compared to automotive batteries. Most flooded lead acid batteries have a depth of discharge (DoD) between 30% and 40% of the stored energy.</p>
 <p>Gel battery</p>	<p>They have a design similar to flooded lead acid batteries except that the lead acid is in the form of gel. It is safer than flooded batteries as possible leakage of electrolyte due to handling is avoided. Gel batteries are sealed and maintenance free. They have similar DoD and life cycle to flooded lead acid batteries.</p>
 <p>Absorbent glass mat (AGM)</p>	<p>These batteries also operate with lead-acid in the same principle as flooded batteries, except that the electrolyte in AGM is absorbed in a fiberglass mat. The electrode plates in AGM can have different forms – they can be flat as in gel or flooded batteries, or they may be wound on a tight spiral. The internal resistance of AGM batteries is lower than traditional cells, they can handle higher temperature and have a lower self-discharge rate.</p>
 <p>Lithium-ion battery</p>	<p>Li-ion batteries have a high energy density; they are relatively lighter in weight and compact for the given capacity of charge they store. Li-ion batteries have higher DoD (over 80%) with much more cycles and less requirement of maintenance. They are increasingly being used in solar PV systems and their cost against energy stored is significantly dropping down.</p>

Inverter

Solar PV modules generate DC electricity. The storage battery also receives and releases DC electricity. Even though there are appliances that work with DC electricity, most common electrical appliances operate with AC electricity. When an AC appliance is required to operate with electricity generated from a solar PV system, an inverter is needed to modify the DC electricity to AC. Depending on the purpose, an inverter may also contain an integrated charger. In such cases, it is usually referred to as an “inverter-charger”. It helps to charge the battery from an AC or DC source and also change the DC electricity from the battery or solar PV module to AC electricity.






5.2 Stand-Alone Solar products

The capacity of Stand-alone solar products might vary significantly depending on the service that they are intended for. They can be used for meeting basic needs in the households or can have larger capacities to supply power for productive uses.

5.2.1 Household use

This section mainly focuses on electricity use for lighting and powering other household appliances such as cell phones, radios, TVs, refrigerators, fans and others.

Table 3: Description of common SAS products for household use

Type of SAS	Range of power rating
 <p data-bbox="375 1429 502 1451">Solar lanterns</p>	<p data-bbox="683 1209 1401 1310">A solar lantern can be a single unit with integrated solar panel, or several units with separate solar panels, a light bulb and other accessories.</p> <p data-bbox="683 1328 1276 1361">Capacity might range from 1Wp to less than 3Wp.</p> <p data-bbox="683 1373 1401 1473">It is used to power one light bulb for about 4 hours in a day. It can also come with a mobile phone charging facility and FM radio.</p>
 <p data-bbox="343 1691 518 1713">Solar pico systems</p>	<p data-bbox="683 1507 1401 1686">Pico-systems might have a capacity ranging between 3Wp to just under 10Wp. They usually have more than one light bulb, mobile charging ports, and recorded music player. They are usually in the form of a kit with plug-and-play type of assembly, which makes it easier for consumers to use.</p>
 <p data-bbox="199 1948 598 1971">SHS separate components SHS kit</p> <p data-bbox="279 1982 550 2004">Solar home systems (SHS)</p>	<p data-bbox="683 1742 1401 1955">An SHS usually has a capacity greater than 10Wp to several hundred Wp. Depending on the capacity, it can provide Tier 2 to Tier 5 level of electricity access. SHS can be integrated as a kit where all the BoS are put in one single box, or can have separate BoS to be installed at the place of use. Larger SHS are specifically sized and installed at the place of use.</p>

5.2.2 Productive use

Productive use of energy (PUE) from SAS products has high development impact as it increases productivity, assists with value addition and creates new job opportunities in areas where the national grid does not reach.¹¹ Most commonly identified applications of larger SAS products in off-grid areas include pumping for irrigation and community water supply, and agricultural product preservation and processing.¹²

Table 4: Description of most common SAS products for productive use

Type of SAS	Description
 <p data-bbox="236 860 411 882">Smallholder farmer</p> <p data-bbox="523 860 699 882">Community WASH</p> <p data-bbox="440 887 571 909">Solar pumps</p>	<p data-bbox="815 591 1406 846">Depending on the application, the size of a solar pump can significantly vary from a few hundred watts to several tens of kilo Watts. Solar pumps can be owned and used at a smallholder farmer level for individual farm use or can be used at community level for water, sanitation and hygiene programmes.</p>
 <p data-bbox="424 1317 549 1339">Solar DC mill</p>	<p data-bbox="815 936 1406 1301">Solar-powered grain mills bring milling services close to rural communities. Grain milling is an existing productive use that is usually provided through diesel motor powered mills in off-grid areas. Solar-powered mills can be more profitable as recurrent expenditure on diesel fuel and engine maintenance would be eliminated. Solar mills can be DC or AC powered. An electric motor designed or modified to soft-start would help reduce the required capacity of the power supply.</p>
 <p data-bbox="309 1574 660 1597">Solar chicken incubators and brooders</p>	<p data-bbox="815 1368 1406 1585">Solar-powered chicken incubators and brooders technologies have the potential for quick adoption by rural communities. They also cut losses of day-old chicks as they are transported from sources located hundreds of kilometres away. Brooders in rural areas use charcoal to keep the chicks warm.</p>
 <p data-bbox="408 1872 564 1895">Solar milk chiller</p>	<p data-bbox="815 1630 1406 1848">Spoilage of daily products due to lack of preservation technologies causes significant economic losses to farmers. Solar-powered milk chillers, dairy product preservation systems and processing technologies can help to cut these losses and improve rural livelihoods.</p>

11 Rocky Mountain Institute (2020). *Capturing the productive use dividend*.


12 Veritas (2020). *Building a market for rural electrification in Ethiopia*.

5.2.3 Social service

Institutional solar PV systems help improve social services in health institutions and rural schools. Provision of electricity access to such institutions would improve the quality and extent of service to communities.

Ethiopia, while aspiring to join the middle-income countries category by 2025, targets to provide universal access to primary education and universal health coverage. Without access to electricity, both types of institutions could not effectively meet their poverty reduction and development objectives. Institutional solar PV systems are not any different from large capacity SHS; they provide sufficient electricity to power medical appliances and equipment, audio-visual equipment, lab equipment, and communication tools to improve the quality of education.

Table 5: Common electrical appliances in primary education and rural health institutions

Type of SAS	Description
 <p data-bbox="411 1153 563 1178">Primary schools</p>	<p data-bbox="810 824 1401 1151">Primary schools in off-grid areas require basic services that are powered by electricity in order to deliver quality education. Such services include typing, photocopying, laboratory practical tests, operating audio-visual equipment, security lighting, water pumping and lessons preparations. Access to solar power would help students access online or recorded information and digital libraries can be set up for reference materials.</p>
 <p data-bbox="432 1467 547 1491">Health posts</p>	<p data-bbox="810 1211 1401 1357">Electrical appliances that would help health institutions provide basic health services include lights, vaccine refrigerators, autoclaves and centrifuges, among others.</p>

6. Application of Import Duty and Tax Rates on Stand-Alone Solar Products and Components




This section is the core part of this Handbook as it provides detailed illustrations of SAS products and components with descriptions and pictures. It also provides existing import duties and taxes that are applied on these products.

SAS products imported as complete, SKD and CKD are separately described in and their corresponding tariffs indicated. Complete SAS products are further categorised as assembled systems and separately packed components. Import taxes in each case for the main SAS products and components are also indicated. Purposes that SAS products are used for, such as consumptive use, productive use, and applications in social services (i.e. rural health institutions and schools) are also described.

SKD and CKD components that are imported for local assembly and manufacturing are listed as per the information obtained from SAS assemblers and manufacturers in Ethiopia.

A. Complete SAS

Table 6: Duty and tax rates for solar flashlights and lanterns

Product or system category	Solar flashlight/hand torch and solar lanterns		
Product type and description – Solar flashlight and solar lantern	Solar flashlight with integrated solar panel.	Solar flashlight with separate solar panel and charging cable	Solar lantern with a separate solar panel and charging cables
	Inbuilt energy accumulator, solar panel is less than 3W		
			
HS Code	8513.1010		
Packaging	All components are packed together in a box for retail		
Additional features considered under this category	May also be charged from main electricity supply		
Applicable Duty Rate	5%		
Applicable Excise Tax	0%		
Applicable VAT	15%		
Applicable Sur Tax	0%		
Remark	The 5% duty may be reduced to 0% if a letter of support is obtained from the Ministry of Water, Irrigation and Energy or another government organisation that has been officially delegated.		



6.1 Common SAS products and components imported under the First Schedule

6.1.1 Importation of consumptive use SAS products

SAS products for consumptive use are those that are used to power household appliances including lighting and powering refrigeration and entertainment devices such as TVs or radios. Such SAS products can be imported as complete systems, such as solar kits and SHS, or as system components to be sized and installed as per the power demand of individual applications. Most common solar system components are solar PV modules, charge controllers, inverters and batteries.

Table 7: Duty and tax rates for solar lantern with a detachable metal stand



Product or system category	Solar lantern	
Product type and description – Solar lantern	A solar table lamp with inbuilt solar panel	A solar table lamp with a separate solar panel, and a charging cable from the solar panel to the lamp
	Inbuilt rechargeable batteries, solar panels are less than 3W, designed to stand on a table with a detachable stand	
		
HS Code	9405.2190	
Packaging	All components are packed together in a box for retail	
Additional features considered under this category	It might have an integrated mobile phone charger and FM radio. May also include USB cable for phone charging	
Applicable Duty Rate	25%	
Applicable Excise Tax	0%	
Applicable VAT	15%	
Applicable Sur Tax	10%	
Remark	The 25% duty tax may be reduced to 0% if a letter of support is obtained from the Ministry of Finance or another government organisation officially delegated	

Table 8: Duty and tax rates for solar pico system


Product or system category	Solar pico system	
Product type and description – Solar pico system	Solar panel with 2 to 5 separate LED bulbs, each bulb may have its own inbuilt charge accumulator or a separate charge accumulator for all, connection board to connect solar panel and LED bulbs, charging and connecting cables, solar panel is less than 15W, may include USB cable for mobile charging.	
HS Code	9405.4290	
Packaging	All components are packed together in a box for retail	
Additional features considered under this category	May include additional cables (USB) to charge mobile phones	
Applicable Duty Rate	5%	
Applicable Excise Tax	0%	
Applicable VAT	15%	
Applicable Sur Tax	0%	
Remark	The 5% duty tax may be reduced to 0% if a letter of support is obtained from the Ministry of Finance or another government organisation that it delegates to.	

Table 9: Duty and tax rates for solar home system

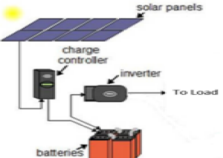

Product or system category	Solar home system	
Component parts – Solar home system HS Code	Has components that include solar panel(s), solar charge controller, solar inverter, solar battery(ies), cables, more than one LED or compact fluorescent lamp (CFL) light bulbs	Solar home system kit: has solar panel(s), casing that contains a solar charge controller, solar inverter, solar battery, more than one LED or CFL light bulbs
	Total solar panel capacity can be between 15Wp to 350Wp	
		
HS Code	8541.4300	
Packaging	All system components may not be connected together but are packed together as a unit in a box for retail	
Additional features considered under this category	A solar home system might have an integrated FM radio and USB port for mobile phone charging	
Applicable Duty Rate	0%	
Applicable Excise Tax	0%	
Applicable VAT	15%	
Applicable Sur Tax	0%	

Table 10: Duty and tax rates for solar home system or solar home system kit – Essential character of the whole package is determined by the solar panel

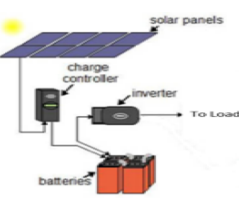

Product or system category	Solar home system	Solar home system kit
Product type and description – Solar home system or Solar home system kit	Solar home system: Components including charge controller, inverter, battery and cables are separate. It is a product where all components need to be connected for the system to function	Solar home system kit: A solar-powered lighting system comprised of a solar panel, multiple LED lights, a casing that may contain all or part of the system components (charge controller, inverter and battery)
	Larger systems may have one or more solar panels and batteries depending on the capacity of the system. The total capacity of the solar panel might vary from 15Wp to 350Wp	
		
HS Code	If the essential character of the whole package is determined by the solar panel, then the HS Code of a solar panel applies: 8541.4300	
Packaging	Some system components may be packed together but components might not be connected, requiring connection during installation	
Additional features considered under this category	Includes primary cables and interconnecting cables that connect the solar panel to different components of the system. It may also include secondary cables (such as USB) for charging phones and torches	
	Some solar home systems may include a rechargeable flashlight charged from the same system	
	Solar lighting system can be charged via USB	
Applicable Duty Rate	0%	
Applicable Excise Tax	0%	
Applicable VAT	15%	
Applicable Sur Tax	0%	

Table 11: Duty and tax rates for solar home system or solar home system kit – Essential character of the whole package is determined by the rechargeable battery

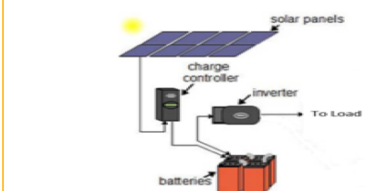


Product or system category	Solar home system	Solar home system kit
Product type and description – Solar home system or Solar home system kit	Solar home system: Components including charge controller, inverter, battery and cables are separate. It is a product where all components need to be connected for the system to function	Solar home system kit: A solar-powered lighting system comprised of a solar panel, multiple LED lights, a casing that may contain all or part of the system components (charge controller, inverter and battery)
	Larger systems may have one or more solar panels and batteries depending on the capacity of the system. The total capacity of the solar panel might vary from 15Wp to 350Wp	
		
HS Code	If the essential character of the whole package is determined by the battery, then one of the HS codes of solar batteries below applied depending on the type of solar battery of the system: 8507. 2010 8507. 3010 8507. 4010 8507. 5010 8507. 6010 8507. 8010	
Packaging	Some system components may be packed together but components might not be connected, requiring connection during installation	
Additional features considered under this category	Includes primary cables and interconnecting cables that connect the solar panel to different components of the system. It may also include secondary cables (such as USB) for charging phones and torches Some solar home systems may include a rechargeable flashlight charged from the same system Solar lighting system can be charged via USB	
Applicable Duty Rate	0%	
Applicable Excise Tax	0%	
Applicable VAT	15%	
Applicable Sur Tax	0%	

Table 12: Duty and tax rates for solar home system – Components are imported without being packed together as a unit for retail

Product or system category	Solar home system							
Component parts and description - Solar home system	<p>A solar home system has components including solar panel(s), charge controller, inverter, batteries, LED/CFL light bulbs and cables. All components come together but may not be packed together as a unit.</p> <p>All components need to be connected during installation for the system to function. It might have one or more solar panels and batteries depending on the capacity of the system. The total capacity of the solar panel might vary from 10Wp to 350Wp.</p> <p>Larger systems may have one or more solar panels and batteries depending on the capacity of the system. The total capacity of the solar panel might vary from 15Wp to 350Wp</p>							
								
HS Code	<p>Each component will be separately classified as per the HS Code/tax category</p> <p>Solar panel – 8541.4300</p> <p>Rechargeable battery – 8507.2010, 8507.3010, 8507.5010, 8507.6010, 8507.8010</p> <p>Charge controller (up to 1,000V) – 8537.1010</p> <p>Charge controller (greater than 1,000V) – 8537.2010</p> <p>Inverter – 8504.4010</p> <p>Charging cables (with connectors) – 8544.4200</p> <p>LED lamp - 8504.4010</p> <p>CFL lamp - 8539.3100</p>							
Packaging	The system components are imported without being packed together as a unit. The components will be connected during installation							
Additional features considered under this category	System might have an integrated FM radio and USB port for mobile phone charging							
	Solar panel	Charge controller (up to 1000V)	Charge controller (above 1000V)	Inverter	Battery	Cables	LED/ CFL lamps	
Applicable Duty Rate	0%	0%	0%	0%	0%	35%	25%	
Applicable Excise Tax	0%	0%	0%	0%	0%	0%	0%	
Applicable VAT	15%	15%	15%	15%	15%	15%	15%	
Applicable Sur Tax	0%	0%	0%	0%	0%	10%	0%	

B. Stand-alone solar system components (balance of system)

Solar PV system components might also be imported as separate components. These components are normally referred to as the “balance of system”. They include solar panels, charge controllers, inverters, batteries and cables. Table 13 shows applicable import duties and taxes on the balance of system for SAS products.

Table 13: Duties and taxes on solar PV system component parts

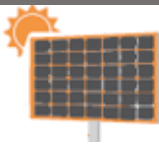










Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
Solar panel 	Photosensitive semiconductor devices including photovoltaic cells, whether assembled in modules or made up into panels	8541.4300	0%	0%	15%	0%
CFL/LED light 	Light Emitting Diode (LED) lamp	8539.5220	25%	0%	15%	10%
	Compact Fluorescent lamp (CFL)	8539.3100	25%	0%	15%	0%
Lead-acid battery 	Flooded Lead Acid batteries - deep cycle solar batteries with liquid electrolyte and lead electrodes	8507.2010	0%	0%	15%	0%
Gel lead-acid battery 	Gel Lead Acid batteries - deep cycle batteries with gel acid and lead electrodes	8507.2010	0%	0%	15%	0%
AGM battery 	Same as flooded lead acid solar battery but electrolyte is absorbed in a glass wool mat. Maintenance free.	8507.2010	0%	0%	15%	0%
Lithium-ion battery 	Lithium-ion solar batteries - It is lighter in weight per energy storage capacity, has high DoD up to 90%	8507.6010	0%	0%	15%	0%
Others	Others	8507.8010	0%	0%	15%	0%
Ni-cadmium, Nickel-iron, Nickel metal hydride, or flow batteries 	Other types of solar batteries such as Ni-cadmium, flow battery	8507.3010 8507.5010	0%	0%	15%	0%

Table 13: Duties and taxes on solar PV system component parts

Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
	Charge controller for renewable energy (up to 1,000V)	8537.1010	0%	0%	15%	0%
	Charge controller for renewable energy (above 1,000V)	8537.2010	0%	0%	15%	0%
	Inverters for renewable energy such as solar and wind power	8504.4010	0%	0%	15%	0%
Conductor cables 	Electric conductor cables with terminals that are used for connecting different components of a solar PV system	8544.4200 8544.4900	15%	0%	15%	0%
Solar panel support rack/ structure 	Solar PV array aluminium structure	7610.9090	35%	0%	15%	10%
	Solar PV array mild steel (carbon steel) support structure	7304.5900	15%	0%	15%	0%

6.1.2 Importation of energy appliances and tools




The main difference between household SAS products and PUE ones is the capacity. Productive use commonly refers to income generating activities where the end-use devices demand more power and operate longer hours. Common examples of SAS products for productive use are water pumps for irrigation or community water supply systems and solar PV systems to power grain mills. SAS products for social services are devices or equipment used to power rural health

institutions and schools.

This section outlines widely used end-use devices that meet basic household needs and those that are used for productive use in the agriculture sector, small businesses and social services such as rural schools and health facilities. The appliances and tools listed below are those that are most needed in rural areas to make significant development impact. With availability of electricity, these appliances and tools will lead to fast rural transformation.

A. Consumptive use SAS appliances for households

Table 14: Duty and tax rates for household SAS appliances

Product	Product Description	HS Code	Import Duty	Excise	VAT	Sur Tax
	Radio broadcast receivers may be combined with CD players or flash memory	8527.2190 8527.2990 8527.9910 8527.9990	25%	0%	15%	10%
	TV sets incorporating video recording or reproducing apparatus, presented as CBU, colour, flat screen, LED, etc	8528.7230	35%	0%	15%	10%
	Complete built up, CFC free for home use	8418.1020 8418.2120 8418.3020 8418.4020	25%	0%	15%	10%
	Table, floor, wall, window, ceiling or roof fans with a self-contained electric motor of an output not exceeding 125W	8414.5100	15%	0%	15%	0%
	Electric stoves for household cooking with less than 2kW power rating	8516.6090	35%	0%	15%	10%

B. Productive use by Appliances

Table 15: Duty and tax rates for agriculture sector SAS appliances





Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
	<p>Solar pumps for irrigation in smallholder farms, large scale irrigation, and community water supply</p> <ul style="list-style-type: none"> • A solar pump comprises one or more solar panels, an inverter and/or a controller, a combiner box (a kind of junction box for connecting cables from the solar panels), a motor pump unit and cables • The motor pump unit of a solar pump is a mechanical pump and an electric motor coupled together and placed in a sealed casing • The pump unit is a variable frequency motor pump system so that the pump operates even at low solar irradiance 	<p>8413.5000 8413.6000 8413.8100</p>	5%	0%	15%	0%
	<p>It is a mechanical pump that is coupled together with an electric motor and the two are sealed in a single casing</p>	<p>8413.5000 8413.6000 8413.7000</p>	5%	0%	15%	10%
	<p>It converts the DC electricity from the solar panel into AC electricity, which is suitable for the solar pump</p>	<p>8504.4010</p>	0%	0%	15%	0%
	<p>It adjusts the DC electricity from the solar panel into a DC voltage that is suitable for the pump</p>	<p>8537.1010 8537.2010</p>	0%	0%	15%	0%
	<p>It is a junction box where cables from the solar panels are connected in a manner that allows certain configuration and easy tracing</p>	<p>8536.2020</p>	15%	0%	15%	0%

Table 15: Duty and tax rates for agriculture sector SAS appliances (continued)

Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
 <p>Electric grain milling machine</p>	Grain mill powered by electric motor that can get electricity from solar	8437.8000	0%	0%	15%	0%
 <p>Egg incubator</p>	Machine used to hatch poultry eggs into chicks	8436.2100	0%	0%	15%	0%
 <p>Chicken brooder</p>	Poultry-keeping machinery used to keep chicks warm	8436.2100	0%	0%	15%	0%
 <p>Milk churning machine</p>	Used in dairy farming to churn or beat the milk to produce butter.	8434.2000	0%	0%	15%	0%
 <p>Milk chiller</p>	Used to preserve milk from production to delivery by keeping it cold	8434.2000	0%	0%	15%	0%

Table 15: Duty and tax rates for agriculture sector SAS appliances (continued)






Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
 <p>Milk pasteuriser (batch or continuous system)</p>	Milk is commonly pasteurised in plate heat exchangers at 72-75°C for 15 seconds. This temperature is sufficient to destroy all pathogenic bacteria, while significantly reducing the number of organisms that can cause spoilage	8434.2000	0%	0%	15%	0%
 <p>Deep freezer (AC/DC)</p>	Long-term storage of milk and milk products (Powered by renewable sources or other sources)	8418.2120	25%	0%	15%	10%

Table 16: Duty and tax rates for SAS appliances for services and small businesses

Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
 <p>Hair clipper (DC)</p>	Electric hair trimmer/clipper for barber shops	8510.2000	35%	0%	15%	10%
 <p>Hair dryer (DC)</p>	Used in hair dressing saloon in rural areas	8516.3190	35%	0%	15%	10%
 <p>Sewing machine (DC)</p>	For rural tailors, and can be powered by solar energy	8452.1000	0%	0%	15%	0%

C. Appliances for social services

Table 17: Duty and tax rates for appliances for off-grid health services and education









Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
Medical/vaccine refrigerators 	These refrigerators are purpose built to meet the recommended temperature requirements for safe storage of vaccines and other medicines	8418.1020	25%	0%	15%	10%
Autoclaves/ medical, surgical or laboratory sterilisers 	An autoclave is a steriliser which uses elevated temperature steam to kill microbes that may be present in lab equipment	8419.2000	0%	0%	15%	0%
Clinical centrifuge 	A device that uses centrifugal force to separate various components of a fluid by spinning the fluid at high speed within a container, thereby separating fluids of different densities or liquids from solids	8421.1900	5%	0%	15%	0%
Microscope 	A laboratory instrument used to examine objects that are too small to be seen by the naked eye	9012.1000	0%	0%	15%	0%
Computers 	Audio-visual instrument used as a teaching/learning aid	8471.3020	15%	0%	15%	0%
Electronic tablets 	Audio-visual instrument for teaching/learning	8471.3020	15%	0%	15%	0%

Table 17: Duty and tax rates for appliances for off-grid health services and education (Continued)

Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
TV set 	Audio-visual instrument used as a teaching/ learning aid in schools	8528.7230	35%	10%	15%	10%
Streetlights (LED/CFL) 	A streetlight with LED or CFL light, solar panels and batteries	9405.4190	15%	0%	15%	0%



6.2 SAS products and components imported under the Second Schedule

Items imported under the Second Schedule are goods that get import tax privileges as additional benefits because of their social, economic, or environmental contribution. Sectors that the government believes are of great national interest are given special tax benefits so to encourage investment in the sector. A typical example is the manufacturing sector where local value addition by manufacturing or assembling imported industrial inputs into a complete product would create employment, result in technology transfer and speed up industrialisation.

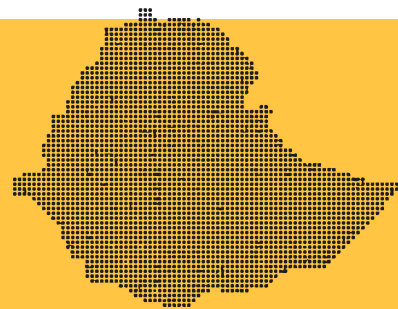
6.2.1 Importation of SKD & CKD components

Components that fall under this category are SKD components and other input materials that would be locally assembled into a final product. SKD components that are used for local assembly of SAS products and the corresponding import duties and taxes are shown in the Table 18.

Table 18: Duties and taxes for SKD and CKD components for local assembly or manufacture of SAS products

Product	Product description	HS Code	Import Duty	Excise	VAT	Sur Tax
 <p>Cables with pre-fixed connectors</p>	For example phone charging cable, cable for lamps, Y-splitter cable	8544.4200	15%	0%	15%	0%
 <p>Different types of screws</p>	Used to bind components/ parts of a SAS product during assembly	7318.1500	5%	0%	15%	0%
 <p>Packaging cartons</p>	Corrugated, with product labels on the cover	4819.1000	15%	0%	15%	0%
 <p>Wrapping paper</p>	Thin rolled or plain wrapping paper	4805.9100	5%	0%	15%	0%
 <p>PCBA (ready-assembled PCB)</p>	Ready assembled printed circuit boards	8534.0000	5%	0%	15%	0%
 <p>Plastic label (Sticker labels)</p>	Different sizes and types of plastic labels and other adhesive foils, e.g. display foils	3919.1090 and 3919.9090	15%	0%	15%	0%
 <p>Paper label (Sticker labels)</p>	Different sizes and types of adhesive paper labels	4821.1000	35%	0%	15%	10%
 <p>Semiconductors, electronic components that are most widely used for SAS manufacturing</p>	Resistors, 8533.3100 Transistors 8541.2100 Capacitors 8532.3000 Diodes 8541.1000 Inductors 8504.5000 Thyristors 8541.3000 PCBs 8534.0000	8533.3100 8541.2100 8532.3000 8541.1000 8504.5000 8541.3000 8534.0000	5% 5% 5% 5% 5% 5% 5%	0% 0% 0% 0% 0% 0% 0%	15% 15% 15% 15% 15% 15% 15%	0% 0% 0% 0% 0% 0% 0%
 <p>Other electronic components that are most widely used for SAS manufacturing</p>	DC power jack, USB connectors, fuse holders, etc	8542.3100 8542.3900 8542.9000	5%	0%	15%	0%

7. Recommendations



The following recommendations are drawn from observations and interviews conducted with SAS products importers, assemblers, manufactures, and relevant government organisations and ministries in the course of the development of this Customs Handbook.

Customs Commission

- ☉ The Customs Handbook needs to be revised annually or every two years to incorporate fiscal policy changes on SAS products and new renewable energy technologies. The industry association, MoWIE and relevant stakeholders should be involved in the revision of the handbook.
- ☉ Further classification of HS Codes for SAS products and other renewable energy technologies is needed to differentiate them from non-renewable energy technologies. For instance, solar charge controllers do not have a distinct HS Code.
- ☉ A transparent and fair procedure needs to be agreed upon and applied to determine import tariff rates for multiple goods imported under the same shipment document.

Private sector

- ☉ Tariff classification and valuation: Importers of SAS products are advised to distinctively and separately list products that are used for solar energy conversion into electricity (PV modules, controllers, inverters, batteries) and end-use devices (TV sets, radio, etc) so that tariffs can be applied to each item separately, unless a specific tariff exists for such products as a system.


- ☉ Advance ruling system: Private companies should properly complete the advance ruling request form and closely follow-up with the responsible directorate to check if there are any requests for more clarification or information.

Ministry of Finance


- ☉ Encouraging local manufacturing: Since the manufacturing sector is very delicate and significantly affected by slight macro and micro-economic changes, it should be given slightly more liberty in terms of changing discrete components that it imports for local manufacturing. This will give players the resilience to cope with the frequently changing and improving complete products imported.
- ☉ Regulators need to recognise that putting up regulations that fully seal unintended use of fiscal policy benefits might paralyse the very sector that it promotes. A slightly light-handed regulation would help the SAS local assembly and manufacturing sector.
- ☉ Additional tax incentives: End-use technologies for productive use and social service improvement need to be considered for import tax exemption so that sector specific targets that fit into the national development plan can be achieved as planned.
- ☉ Basic consumables for manufacturing: such as solders and wax, which are not locally manufactured, need to be permitted to local assemblers and manufacturers of SAS products.
- ☉ Transparency and accountability: Changes in tariff rates need to be communicated in a

very transparent manner so that all affected bodies are be aware. Consultation with the energy sector organisation responsible for recommendation of tax exemption should also be done when an import tariff is re-applied on a product that was once duty free so that the objective for lifting duty on a product is not missed.

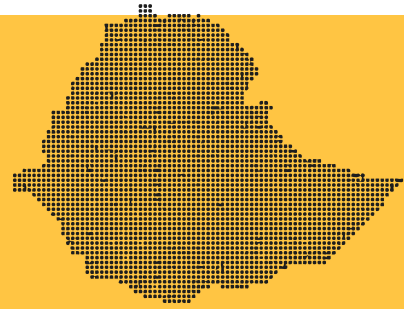
Ministry of Water Irrigation and Energy

 **Transparency:** A system needs to be built to


consult relevant sector organisations before changing tariff codes and corresponding tariff rates for certain goods.

 **Collaboration:** MoWIE should work with sector organisations on the benefits of SAS products in providing electricity access to power end-use devices for productive use or improved social services. MoWIE should go beyond electricity generation to promote benefits of electricity access to accelerate targets by other sector organisations.

8. Annexes



Annex 1: Ethiopian Customs Commission Declaration Form

 ETHIOPIAN CUSTOMS COMMISSION DECLARATION FORM		1 DECLARATION IM 4		A. CLEARANCE OFFICE MOJO Dry Port (MOJ) Office Code Manifest Number	
2 Consignor/Exporter No		3 Forms 1 1	4 Loading Lists	Registration number & date	Assessment number & date
8 Consignee/Importer No		5 Items 1	6 Tot. Pkgs. 196	7 Declarant Reference number 2020 / PR0213	Receipt number & date
		9 Person responsible for financial settlement No			10 Country of Last AE Consign.
					11 Trading country
		15 Country of dispatch/export		15 C. disp./exp. code a AE b	17 Country destin. code a ET b ET
14 Declarant No		16 Country of origin		17 Country of destination	Section EOG
		20. Delivery Terms			Business Activity
18 Identity and nationality of means of transport at arrival		19 Ctr. <input checked="" type="checkbox"/>	22 Currency and total amount invoiced		23 Exchange rate
21 Identity and nationality of active means of transport crossing the border		28 Financial and banking data Bank Code		24 Invoice Details Currency Amount	
25 Mode of transport 62 at the border	26 Inland mode 3 of transport	27 Place of Loading Al Ain AEAAN	Branch AHQ	Terms of Payment 1 BANK	Insurance ETB
29 Office of entry/exit		30 Location of goods		B. P. number and date	Ex. Freight
				Other 3,947.00 In. Freight	ETB 25,380.00
				Total	ETB 149,914.00

31 Packages and description of goods	Marks & numbers	Ctr. No(s)	Number & kind of packages 196 IH Drum	32 Item 1 No	33 Commodity Code 27121000 000 0000 0000	34 Country of origin Code a TR b	35 Gross Mass (kg) 37828	38 Preference
	Description of goods			42 a Ex. Freight 76,428.00 Insurance 1,159.00 Other Costs 43,947.00 In. Freight 25,380.00	37 PROCEDURE 4081 000	38 Net mass (kg) 34300	39 Quota	40 Summary declaration/Previous document / Way bill
	License number	Deducted Quantity	Deducted Value	41 Supplementary units	42 Item price 15,435.00	43 V.M. Code	A.I. Code	45 Adjustment 1
	Attached document codes 008 001 004 005 006 013 081 007 031 032 033 034 510	Proc. Program	46 Statistical Value 740,026.00	48 Account No / Deferred Payment	49 Warehouse code / period	47 Taxes & duties	Summary of Payables	Amount
Type	Duty/Tax Base	Rate	Amount	MP	Total duties & taxes 312,439.10	Guarantee amount 0.00	Total fees 0.00	Other 0.00
01	740,026.00	10	74,002.60	1	Total Payable 312,439.10	Total Payable 312,439.10	Total Payable 312,439.10	
03	814,029.00	0	0.00	1				
04	814,029.00	15	122,104.40	1				
05	936,133.00	10	93,613.30	1				
15	740,026.00	3	22,200.78	1				
16	740,026.00	0.07	518.02	1				
Total			312,439.10	1				
50 Declaration					C OFFICE OF DEPARTURE			

52 Guarantee not valid for	Code 53 Office of destination (and country)
D CONTROL BY OFFICE OF DEPARTURE Stamp: Result: Seals affixed: Number: Identity: Time limit (date): Signature:	54 Place and date: Signature and name of declarant/representative

ETHIOPIAN CUSTOMS COMMISSION
DECLARATION FORM - List of Containers

	1	DECLARATION	A. CLEARANCE OFFICE	
	IM	4	Office	Manifest Number
	MOJ00			
3	Forms	5	Items	Registration number & date
1		1		Assessment number & date

#	Container Reference	Item No	Type	E/F	Other characteristics
1		1	20GO		
2		1	20GO		

Annex 2: Foreign exchange request form with an online Ethiopian Electronic Single Window (ESW) service

2160201 Application for Bank Import Permit - Ethiopian Electronic Single Window

APPLICATION FOR BANK IMPORT PERMIT

HOME > BUSINESS > LPCO APPLICATION > SUBMISSION

Application

* Reference No.

-

21

41

* Reference Date

16/02/2021

Foreign Currency Approval Q

* LPCO No.

DSB/Z1/2424/FC1

https://www.eti.gov.et/etis/etis/bank/ImportPermitAppForm?braCode=BANK&appCode=ED_REQ_BI
1/6

2160201 Application for Bank Import Permit - Ethiopian Electronic Single Window

* Reference No.

2160201 Application for Bank Import Permit - Ethiopian Electronic Single Window

* Reference No.

Approval No.

* Payment Method

Letter of Credit v

* Available by

Payment
 Negotiation
 Acceptance
 Deferred Payment
 Mixed Payment

General
 Letter of Credit
 Foreign Exchange
 Commodity

Required Document
 Attachment

Letter of Credit

* Source of Fund

Reserve
 Grant
 Foreign Loan

Loan Number

Advising Bank Name

...

https://www.eti.gov.et/etis/etis/bank/ImportPermitAppForm?braCode=BANK&appCode=ED_REQ_BI
2

2160201 Application for Bank Import Permit - Ethiopian Electronic Single Window

Advising Bank Address

Annex 3: Ethiopian Customs Commission branch offices

ECC branch offices at ports of entry		Location
1	Addis Ababa Airport Customs Office	Addis Ababa
2	Dire Dawa Dry Port	Dire Dawa
3	Galafi Customs Office	Afar
4	Gelan Dry Port	Addis Ababa
5	Kombolcha Dry Port	Amhara, Kombolcha
6	Mekelle Dry Port	Tigray, Mekelle
7	Metema Customs Office	Metema
7	Mille Dry Port	Afar, Mille
8	Mojo Dry Port	Oromia, Mojo
9	Moyale Customs Office	Moyale
10	Semera Dry Port	Afar

Annex 4 List of some customs clearing agents

(Source: <https://www.2merkato.com/directory/446/>)

Name and logo	Contact details
1 Massida Group 	+251 942 187 200 Park Lane Tower, 2nd Floor Bole Sub-city, Woreda-03, Addis Ababa
2 Hiwot Customs Clearing & Forwarding Agency PLC 	Off: +251 114 169 509; +251 114 169 510; +251114169511 Mob: +251 932 971500; +251 935 981631 On the road from Gotera to Kera, Next to Pepsi, Addis Ababa
3 Panafrica Global PLC 	Office: +251 115 516 250; +251 11 5 517092; +251 115 515 3243 Mob: +251 911 209 220 Kirkos, Addis Ababa
4 DMT Business and Logistics PLC 	+251 093 598 1734; +251-0935981733; +251 091 311 1242 Midway from Dembel city centre to Meskel Flower, Aster Surafel Building 1st floor, Office no.101, in front of Dreamliner Hotel, on the Top of United Bank., Addis Ababa
5 NuredinAliye Freight Transport PLC 	+251 911 394 825; +251 915 330 970; +251 915 330 970 Adiss Ababa, Diredawa, Jijiga, Berbera, , Dire Dawa
6 Solomon Zewdu Shipping and Freight Forwarding Agent 	+251 114 400 274; +251 911 526 232/33; +251 911 110 082 Nifas Silk/Lafto, Addis Ababa, Ethiopia
7 Packtra PLC 	+251 115 523 711; +251 115 513 788; +251 911 212 816; +251 921 544 557 Addis Ababa Stadium, Next to Ethiopian Red Cross Association, Addis Abab,

Annex 4 List of some customs clearing agents (Continued)

Name and logo	Contact details
<p>8 ProMovers Logistics</p> 	<p>+251 118 688 880; +251 911 218 326; +251 929 909 090 Wellosefer, Ethio China road, Desa Alf Bldg, 2nd floor, Addis Ababa</p>
<p>9 Binboz Services</p> 	<p>+251 902 576 767; +251 961 253 725 Bole, in front of the Chacha around Imperial, Sany Building, Addis Ababa,</p>
<p>10 Naytra Logistics Plc</p> 	<p>+251-115 580 730; +251-115 580 739; +251 911 204 995 Dembel city centre 11th floor office No. 11-13 A, B and C, Africa Avenue, st, Addis Ababa</p>
<p>11 Ethio-port Logistics Solutions (EPLS)</p> 	<p>+251 924 333 333; +251 920 565 656 Around Bole Medhanialem, Zergaw Building 6th floor office No.603, Addis Ababa</p>
<p>12 Parcel Logistics PLC</p> 	<p>+251 114 671 351; +251 911 528 422; +251 911 528 421; +251 9115 28419 Kirkos, Sera Lion st, Beklobet, next to Dashin Bank H.Office, Garad Mall Building, 2nd floor Office No. 20, Addis Ababa</p>
<p>13 Honest Trade Enterprise Plc</p> 	<p>+251 114 404 440; +251 114 404 490; +251 096 242424; +251 096 282828 Ethio-China Friendship Road, Goterawengelawit building, 4th floor, office No. 1 and 2, Addis Ababa</p>
<p>14 Smayaz Transact International Plc</p> 	<p>+251 114 660 780; +251 114 660 781; +251 114 652 686; +251 911 206 411; +251 911 211 905 Kirkos, Lancha, behind Global Hotel, Addis Ababa</p>
<p>15 Shebatra Plc</p> 	<p>+251 115 544 313; +251 115 544 326; +251 911 214 896; +251 911 602 851 Kirkos, Bole Road, Africa Avenue, Getu Commercial Center 4th floor, office No. 411 Addis Ababa</p>
<p>16 Segon-Marill Movers Plc</p>	<p>+251 114 709 696 Addis Ababa</p>
<p>17 Solomon Demissew Customs Clearing and Logistics</p>	<p>+251 910 433 363; +251 901 011 501; +251 937 520 966 Kezira, Dire Dawa</p>
<p>18 Bisewer Business Plc</p>	<p>+251 114 670 331; +251 911 604 553 Addis Ababa, Ethiopia</p>
<p>19 Proxy Transit Service</p>	<p>+251911459492 Addis Ababa, Ethiopia</p>
<p>20 Gensis Custom Clearing Agent</p>	<p>+251 114 424 020; +251 911 148 913 Addis Ababa, Ethiopia</p>
<p>21 Ashkid Transit and Logistics Service</p>	<p>+251 911 166 477; +251 924 431631 Addis Ababa, Ethiopia</p>
<p>22 Express Transit Service Enterprise Plc</p>	<p>+251 911 201 718 Addis Ababa</p>

Ethiopia Customs Handbook

For stand-alone solar products and components

2022

