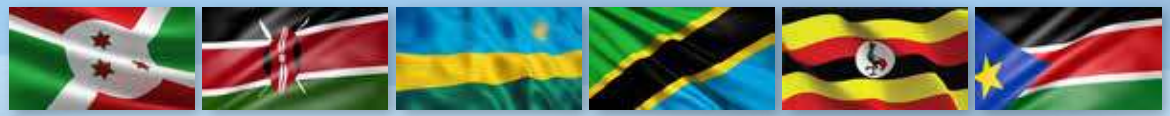

May 2022

The East African Regional Handbook on SOLAR TAXATION

Supported by

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Transforming Energy Access

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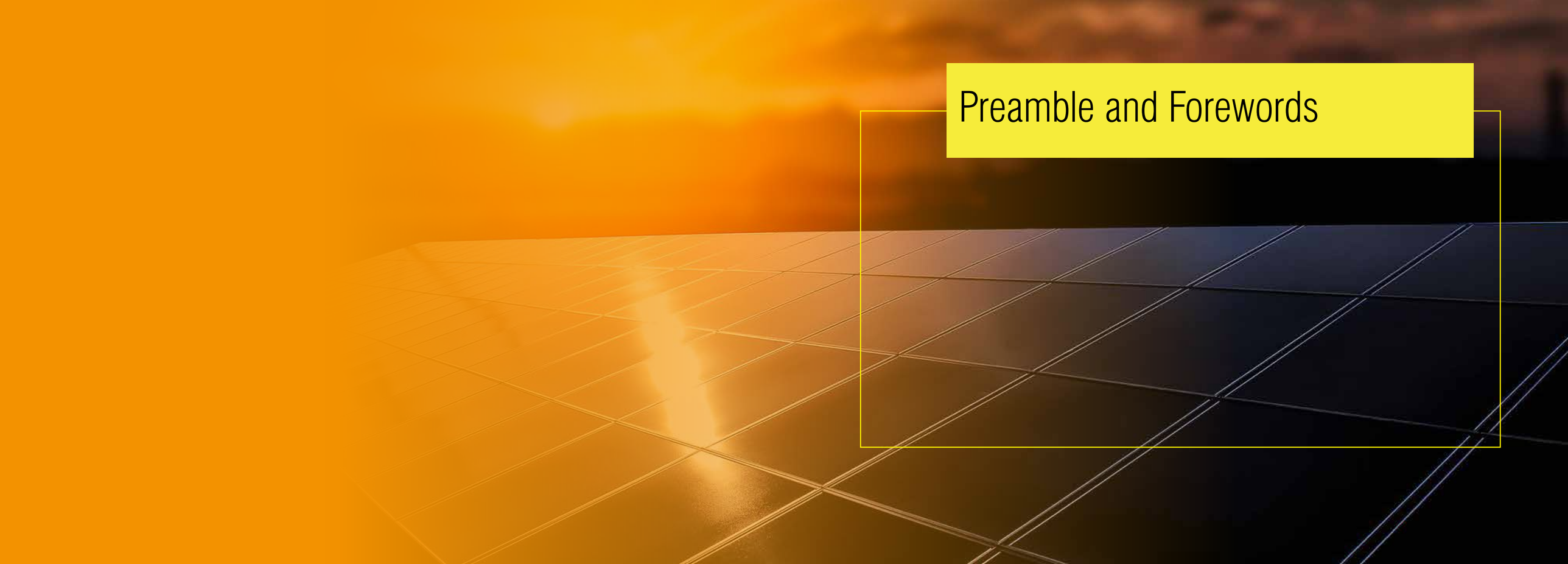
Foreign, Commonwealth & Development Office

Developed by

BDO

Preamble and Forewords



Preamble

In 2019, Sustainable Energy for All reported that 60% of Uganda's urban population and 18% of the rural areas had access to electricity; with the country average estimated at 25%. A 10-year *Renewable Energy Policy (2017)* by the Rural Electrification Agency (REA) was slated to grow clean energy use from 4% in 2007 to 61% in 2017. However, electricity access in rural areas still fell short of this target by over 40%. Despite this, the last ten years have seen a remarkable transformation in Uganda's offgrid solar energy industry. The solar industry which was long regarded as unviable for mass electrification and productive use technologies has experienced tremendous growth. The Uganda Bureau of statistics (UBOS) household survey reported that use of kerosene lamps fell from 66% in 2012/2013 to 28% in 2016/2017 in favour of cleaner alternatives such as solar lanterns and solar home systems.

The growth in the number of offgrid households with access to clean energy has been largely driven by three factors: advancements in solar technology such as the plug and play solar home systems (SHS), innovative business models such as the PAYGO credit systems and tax exemptions on some renewable energy products like solar panels, solar batteries, and controllers. These factors have not only made solar products affordable but also accessible to those Ugandans in remote locations deprived of basic amenities such as access to electricity and consequently information. Despite these positive developments, several challenges are still hampering the proliferation of offgrid solar solutions in Uganda. Key of these are the changes and the ambiguity in the tax treatment of solar products by the customs officials.

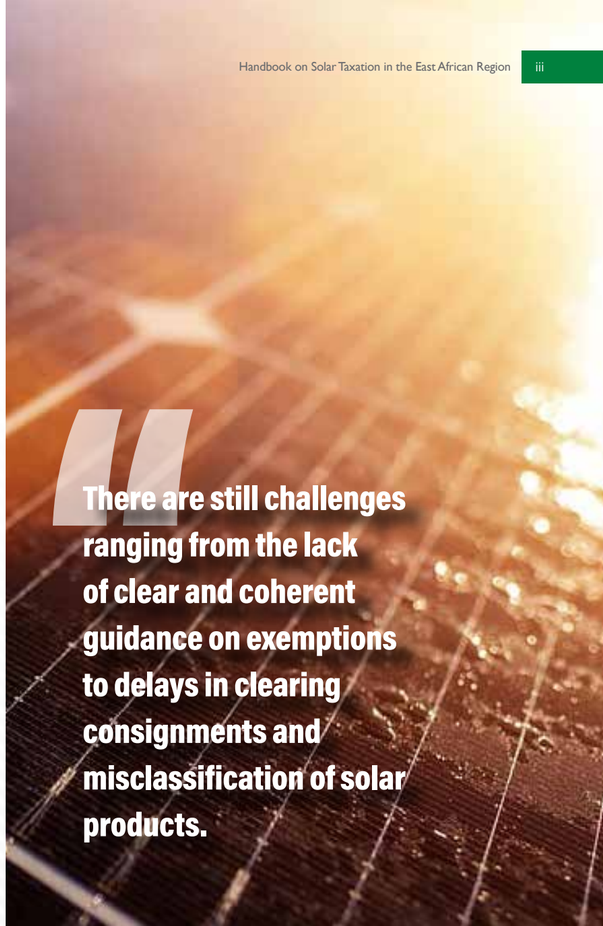
There are still challenges ranging from the lack of clear and coherent guidance on exemptions to delays in clearing consignments and misclassification of solar products. For example, while introducing taxes on solar accessories and spare parts; there has been lack of clarity in the tax regime on what constitutes a SHS and its integral parts. Whereas in some EAC countries a complete SHS is exempt from duty, the same SHS kit is considered as separate components in Uganda where the LED lights and cabling are subjected to duty and the rest is exempt. Technology improvements have made solar products even more integrated. This creates even more confusion for the importer and the customs official.

This East African Regional Handbook on Solar Taxation is a collaboration of Uganda Solar Energy Association (USEA), Kenya Renewable Energy Association (KEREA) and the Uganda National Renewable Energy and Energy Efficiency Alliance (UNREEEA). The joint effort is a look at the taxation regime for solar products and their accessories in the countries of the East African Community.

The handbook offers a detailed guideline on tax treatment of solar imports per country. We trust that it will be of help to solar companies, customs authorities and governments in the region and bring attention to the sector for future enhancements. We hope that by clarifying import duties, we create a more enabling business environment for offgrid solar companies and therefore improved energy access for all East Africans.

The essence of this book is that;

a) It identifies the most common exempted, non-exempted and zero rated solar products and energy efficient appliances (core components, products, parts and accessories critical for delivering off-grid solar energy access).
b) It identifies and provides applicable national/regional tariff codes.
c) It identifies and provides applicable duties and taxes in the EAC.
d) It acts as a reference customs handbook.
e) It enables clear communication between importers and customs in order reduce costs/ inefficiencies/ inconsistencies in doing business.
f) It acts as a training tool for customs, and as a guide for importers already or looking to import solar products in the East African Region.



The last ten years have seen a remarkable transformation in East Africa's off-grid solar energy industry. The solar industry which was long looked at with some skepticism as a viable alternative for mass rural electrification has experienced tremendous growth. Increasingly, the potential to use off-grid solar solutions for productive income generation purposes is being recognized. The use of polluting and harmful fuels such as kerosene for lighting has seen a significant decline in the region, in Uganda for example, the use of kerosene lamps fell from 66% in 2012/2013 to 28% in 2016/2017 in favor of cleaner alternatives such as solar lanterns and solar home systems.

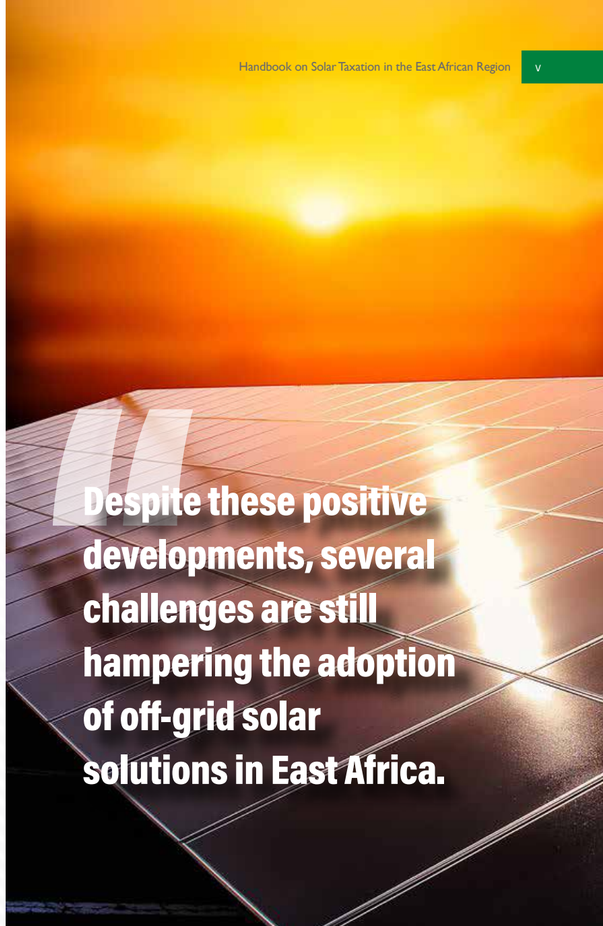
The growth in the number of off-grid households with access to clean energy has been largely driven by three factors: advancements in solar technology such as the plug and play solar home systems (SHS), innovative business models such as the PAYGO credit systems and fiscal incentives such as tax exemptions on some renewable energy products like solar panels, solar batteries, and controllers. These factors have not only made solar products affordable but also accessible to households in remote locations deprived of basic amenities such as access to electricity and consequently information.

Despite these positive developments, several challenges are still hampering the adoption of off-grid solar solutions in East Africa. Key of these are the continuous changes and the ambiguity in the tax treatment of solar products particularly by customs. While there have been efforts that have tried to harmonise the taxation of solar products, the business community in the EAC continues to struggle with differing national interpretation and implementation. For example, while introducing taxes on solar accessories and spare parts; there has been lack of clarity in the tax regime on what constitutes a SHS and its integral parts. Whereas in some EAC countries a complete SHS is exempt from duty, the same SHS kit is considered as separate components in Uganda and Kenya where the LED lights and cabling are subjected to duty and the rest is exempt.

This lack of clarity in import regulations, customs, and tax policy has led to delays in importation for companies and caused misunderstandings between the private sector and tax authorities. Some solar players across the region have experienced noticeable delays in the movement of goods across the borders of East Africa and neighboring countries, this has been debilitating to their businesses. Therefore, there is a need to expedite the movement, clearance, and transit of goods. This requires that the region sets out measures that will improve cooperation between customs and other related authorities on trade facilitation and customs compliance issues.

We note that the realization of a "true" common tariff and landscape for off-Grid Solar products would be a boon to the industry in the East African region and for East Africa's efforts to realize their individual universal energy access and inclusive development goals. This collaboration by USEA, KEREA and UNREEEA through the Transforming Energy Access for Households and Improved livelihoods programme (TEA), funded by the UK Department for International Development can be a pace setter in this regard. The associations recognized the need to work together to address regional issues and they have also expressed their commitment and participated in the development of this East African Regional Handbook on Solar Taxation.

Patrick Tonui
Head of Policy and Regional Strategy
GOGLA



Solar energy is greatly contributing to Kenya's electrification targets under the Kenya National Electrification Strategy2018. Kenya is the biggest off-grid solar market in Africa and has achieved an electrification rate of 76% according to the Energy and Petroleum Regulatory Authority. This especially applies to people in marginalized areas where grid connectivity will be very expensive and take a long time, thereby allowing the government to achieve universal access to electricity at a much lower cost and in a much shorter time.

In part this has been achieved through a favourable tax environment with exemption from duty at the level of the East African Customs Management Act and also VAT exemption provided through the Finance Act 2021.

In order for the sector to continue growing to even greater heights it is important to have a tax regime that is predictable especially for investors and consumers.

While there may still be some challenges with the implementation of the tax exemptions, it is also vital for stakeholders to understand the applicable taxes and how they are administered in the region, taking into account that there is a Common Union in East Africa.

The expanded East African Community, including South Sudan and the Democratic Republic of Congo creates one of the biggest and most integrated trading blocs in Africa. This presents tremendous growth opportunity for both investments and benefits to the citizens of the countries, especially with an increase in the uptake of productive uses for renewable energy technologies and especially for solar energy.

This handbook comes at a very important time when the changes to a number of harmonized systems (HS) Codes come into effect from July 2022. It is important that practitioners in the sector are adequately informed and updated about the changes and also the accompanying processes of how the tax regimes are administered in each country.

This creates a good basis for the renewable energy associations to identify gaps and opportunities for better harmonization and joint advocacy for an enabling environment for renewable energy uptake and also collaboration and businesses between the countries by working seamlessly as a formidable trading block.

We look forward to an enabling tax environment in the region that will allow for increased use of solar technologies which should be the staple in a low carbon renewable energy diet for Africa.

Andrew Amadi
Chief Executive Officer
Kenya Renewable Energy Association

Private sector is key to achieving universal energy access, rightly so, they lead deployment of renewable energy technologies. In Uganda for example, offgrid solutions have contributed over 39% of electricity access because of private sector efforts. Government recognises these contributions and have put in place supportive policies to encourage more private sector engagement. Such is the case of tax subsidies provided to solar PV products. In the form of tax exemptions for some renewable energy products like solar panels, solar batteries, and controllers, these tax incentives have not only made solar products affordable, but also accessible to those Ugandans in remote locations without access to electricity.

Several challenges however still hamper the proliferation of offgrid solar solutions in Uganda. These range from the lack of clear and coherent guidance on exemptions to delays in clearing consignments and misclassification of solar products. For example, while introducing taxes on solar accessories and spare parts; there has been lack of clarity in the tax regime on what constitutes a solar home system (SHS) and its integral parts. Whereas in some EAC countries a complete SHS is exempt from duty, the same SHS. Key of these are the changes and the ambiguity in the tax treatment of solar products by the customs officials.

This updated East African Regional Handbook on Solar Taxation, is the joint effort of UNREEEA and KEREA with support from GOGLA. It looks at the previously published regional handbook and updates it in accordance with recent changes in the tax laws and HS Codes classification changes at World Customs Organisation. The handbooks main aim is to continue bridging of the inconsistencies in tax interpretation among all stakeholders including customs officials, importers, shipping and clearing agents across the EAC region. Furthermore it offers detailed guideline on tax treatment of solar imports per country and in this version South Sudan has been included.

I trust that this updated version of the Solar Tax Handbook as well as the online portal will help to inform solar companies, customs authorities and policy makers in the region and bring attention to the sector for future enhancements. By clarifying import duties, it creates a more enabling business environment for offgrid solar companies and therefore increased access.

Alexander Komakech-Akena
Chairman Board of Directors, UNREEEA

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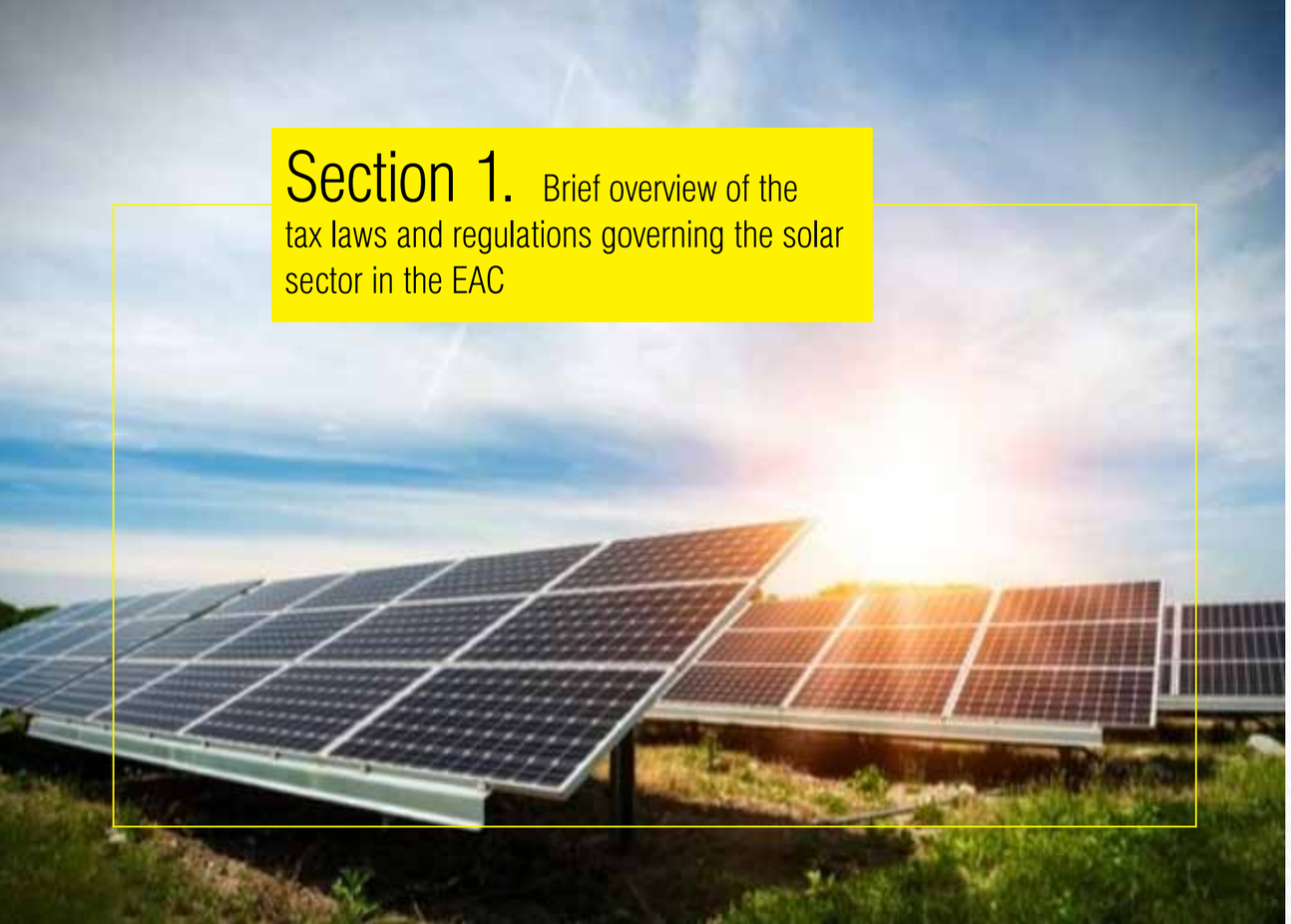
List of Acronyms

AC	Alternate Current
AGM	Absorbed Glass Matt
AUL	African Union Levy
CA	Clearing Agent
CET	Common External Tariff
COC	Certificate of Conformity
DC	Direct Current
DO	Delivery Order
DCB	Deep Cycle Battery
DTA	Double Taxation Agreement
EAC	East African Community
EACCMA	East African Community Customs Management Act 2004
EACREEE	East African Centre for Renewable Energy and Energy Efficiency
FAQ	Frequently Asked Questions
FF	Freight Forwarder
GATT	General Agreement on Trade and Tariff
HS Code	Harmonized System Code
ICC	International Chamber of Commerce
ID	Import Duty
IDF	Import Declaration Fee
ILV / RDL	Infrastructural Levy / Railway Development Levy
ITA	Income Tax Act
KEBS	Kenya Bureau of Standards
KEREA	Kenya Renewable Energy Association
KRA	Kenya Revenue Authority

KW	Kilo Watts
LED	Light Emitting Diode
MOU	Memorandum of Understanding
NCR	Non-conformity Report
PAYG	Pay As You Go
PL	Packing List
PV	Photovoltaic
PVoC	Pre-Export Verification of Conformity
QIF	Quality Inspection Fee
RSB	Rwanda Standards Board
RRA	Rwanda Revenue Authority
SAD	Single Administrative Document
SHS	Solar Home System
TBS	Tanzania Bureau of Standards
TRA	Tanzania Revenue Authority
UG/KE/TZ/RW	Uganda/Kenya/Tanzania/Rwanda
UNBS	Uganda National Bureau of Standards
UNCDF	United Nations Capital Development Fund
URA	Uganda Revenue Authority
USEA	Uganda Solar Energy Association
UNREEEA	Uganda Renewable Energy and Energy Efficiency Alliance
VAT	Value Added Tax
WHT	Withholding Tax
WP	Watt peaks



Section 1. Brief overview of the tax laws and regulations governing the solar sector in the EAC

Corporation Tax

EAC State	Corporation Tax Rate	Corporation Tax Highlights
Uganda	**30%**	◉ Solar companies are required to comply with corporation tax obligations. Uganda's corporation tax regime is governed by the Income Tax Act Cap 340 (ITA). ◉ A company is a tax resident in Uganda for a year of income: if it is incorporated under Ugandan law; the management and control of its affairs are exercised in Uganda; or the majority of its operations are carried out in Uganda. ◉ A resident corporate entity is subject to tax on its worldwide income. A non-resident person is subject to tax only on Uganda-sourced income. ◉ Under the ITA, taxable income includes profits, gains, dividends, interest and non-monetary benefits, advantages or facilities obtained through gainful means etc. ◉ Expenditure and losses incurred by a company during the year of income are deductible from taxable income to the extent to which they were incurred in the production of income included in gross income. ◉ A provisional income tax return must be filed within 6 months of the commencement of the company's accounting year and an amendment to the return may be submitted by the end of the accounting year if the estimated tax liability is revised. ◉ The estimated tax for the year is payable in two installments: before the end of the first 6-month period and; before the company's year-end. ◉ A final return and balance payment is due within 6 months after the company's year-end.
Kenya	**25%, With branches of foreign companies taxed at a rate of 37.5%**	◉ A company or similar corporate entity is a tax resident in Kenya: if it is incorporated under Kenyan law; if management and control of its affairs are exercised in Kenya or if the Secretary of Finance declares the entity to be tax resident in a notice published in the Kenya gazette. ◉ Resident and non-resident corporate entities are subject to tax on all income accruing in or derived from Kenya. ◉ Income tax is imposed on a company's gross income, less allowable deductions. In general, expenses must be incurred wholly and exclusively in the production of income and not be capital in nature to be deductible for tax purposes. ◉ The tax rate for companies with a turnover lower than KES 50million is 1% of the turnover. ◉ A 1% turnover minimum tax applies where a company's tax liability is below 1% of its turnover.

EAC State	Corporation Tax Rate	Corporation Tax Highlights
		• The corporate tax year is based on the calendar year. However, companies may, under Section 27 of the Income Tax Act and with prior approval of the Commissioner, vary their accounting year. • Filing requirements – the self-assessment returns must be filed within six months of the end of a company's accounting period. The return must be filed electronically using the online system (iTax). • Tax installment payments are due within 20 days of the end of each quarter (except the first installment, which is due in the fourth month of the period), based on the relevant proportion of the estimated current tax or 110% of the tax for the previous year, less previous installments paid and withholding tax deducted at source. The balance of tax, if any, is due four months after the company's year-end.
Tanzania	**30%**	• A company is resident in the United Republic of Tanzania: if it is incorporated, formed or established in Tanzania; or has its place of effective management (day to day management) in Tanzania. Subject to certain limited exemptions, Tanzanian resident companies and close corporations (companies) are taxed on their worldwide income as provided on Income Tax Act 2004 section 67. • Corporation Tax is a tax charged on the taxable incomes, profits from business undertakings and profits from conducting investments (except such dividends which are taxed differently as final taxes). Tax is also paid out of turnover of companies with perpetual unrelieved losses for three consecutive years. • The final returns shall be submitted within six months from the end of the accounting period. The return must be prepared or certified by a Certified Public Accountant in Public Practice who is approved by the National Board of Accountants and Auditors (NBAA).
Rwanda	**30%**	• The standard corporate income tax (CIT) rate is 30%. However, micro-enterprise companies (with turnover of less than 12 million Rwanda francs [RWF] in a tax period) pay flat tax amounts, and small businesses (whose turnover is between RWF 12 million and RWF 20 million in a tax period) pay a lump sum tax at the rate of 3% of turnover. • Rwanda operates both a source and residence-based taxation system. This means that any income that is deemed to be from sources within Rwanda will be liable to tax in Rwanda. In addition, resident entities are taxed on their worldwide income. However, where such income is taxed in another country, a tax credit is allowed, which does not exceed the tax that would have been payable on the same income in Rwanda. • Non-resident entities are taxed on income sourced in Rwanda through a permanent establishment (PE).

EAC State	Corporation Tax Rate	Corporation Tax Highlights
Burundi	**30%**	• The standard Corporate tax in Burundi is 30%. If a company makes a loss, then taxation is 1% of the annual turnover. Corporation income tax applies on a company's income generated in Burundi, regardless of its residence. Resident companies are taxed on worldwide income; foreign companies are normally taxed only on Burundi-source income. • A company is resident in Burundi if it is registered under the laws of Burundi or has its effective management exercised Burundi at any time during the year • Tax is levied on profits derived by a company from the operation of a business. Capital gains/losses derived from the sale of an asset by a resident company are included in business/investment income and taxed at 30%. • Losses may be carried forward for five tax periods, but may not be carried back • The tax year in Burundi is the calendar year. The taxpayer may request a different 12-month period. • A self-assessment regime applies. The tax return must be filed and the corporate income tax must be paid no later than three months after the end of the applicable year-end (i.e. by 31 March of each year for calendar year taxpayers). Advance tax is payable in three instalments, each equivalent to 25% of the previous year's corporate income tax liability. The prepayments are payable by 30 June, 30 September and 31 December of the relevant year, with the balance of the corporate income tax for the year payable by the date of submission of the annual corporate income tax return. If the prepayments are higher than the tax payable, the taxpayer can request a refund. Such request must be filed within two months from the submission of the return, and the refund, net of any other outstanding taxes due, must be granted within 60 calendar days from receipt of the application. • Branches in Burundi also pay corporation tax at a rate of 30% and there is no additional withholding tax on branch remittances.

EAC State	Corporation Tax Rate	Corporation Tax Highlights
South Sudan	**Varied based on size of business**	• Tax rates for businesses in South Sudan depends on the revenue of the company. • Small businesses with revenue less than SSP 1 million are taxed at a rate of 10%, medium sized businesses with revenue between SSP 1 million and SSP 30 million are taxed at a rate of 20% and large businesses with revenue exceeding SSP 30 million are taxed at a rate of 25%. • Resident companies are liable to tax on their worldwide income; non-resident companies pay tax only on South Sudan-source profits. • A company, partnership or other entity established in South Sudan or that has its place of effective management in South Sudan is a resident. • Taxable income generally consists of worldwide income for resident companies (and business profits derived from South Sudan for non-resident companies), less expenditure incurred wholly and exclusively in the production of the income for the year. Dividends received from a resident company are considered South Sudan-source income and are included in business profits. However, dividends are exempt from taxation as business profits if tax has already been withheld on the dividends. Capital gains are considered South Sudan-source income and are included in the taxable income subject to corporate tax • Losses may be carried forward and set off against taxable income for up to five years. The carryback of losses is not permitted. • A branch of a foreign company is subject to the same tax rate as a domestic subsidiary. There is no branch profits tax

Value Added Tax (VAT)

EAC State	VAT Rate	VAT Highlights
Uganda	**18%**	• VAT in Uganda is accounted for on accrual basis unless the tax payer gets permission from the commissioner to account for VAT on a cash basis. • Under the VAT Act, a supply of goods or services takes place on the earliest of the date on which; the goods are delivered or made available; or the performance of the service is completed; payment for the goods or services is made; or a tax invoice is issued. • A taxable person is allowed input VAT on taxable supplies made to the person and import of goods made by that person. • When a tax payer deals in the supply of both taxable and exempt supplies (like is the case with many solar companies), they are required to apportion the Input credit every month when filing a return and also make an end year adjustment at the end of each calendar year. • All taxable persons are required to file a return for every tax period (calendar month) and pay tax (if any) within 15 days after the end of the month. • Exempt Solar Supplies - Section 20 of the VATA states that an import of goods is an exempt import if the goods are exempt from customs duty under the Fifth Schedule of the EAC CMA 2004 except compact fluorescent bulbs with a power connecting cap at the end, and lamps and bulbs made from Light Emitting Diodes (LED) technology for domestic and industrial use or would be exempt had they been supplied in Uganda. • Section 19 of the VATA, Cap 349 provides that a supply of goods or services is exempt if it is specified under the Second Schedule of the Act. Some of the goods in the schedule of the VAT Act relating to the solar industry include the following; ▪ The supply of photosensitive semiconductor devices, including photovoltaic devices, whether or not assembled in modules or made into panels; light emitting diodes, solar water heaters, solar refrigerators and solar cookers. ▪ The supply of deep cycle batteries, composite lanterns and raw materials for the manufacture of deep cycle batteries and composite lanterns. ▪ The supply of any goods and services to the contractors and subcontractors of solar power.

EAC State	VAT Rate	VAT Highlights
Kenya	**16%**	◉ In September 2016 the VAT Act 2013 was amended through the Finance Act 2016 to include provisions relating to the VAT treatment of solar equipment and accessories as follows: ▪ Item 45 of the Part I of the First Schedule to the VAT Act 2013 provides VAT exemption on supply of "specialized solar equipment and accessories, including solar water heaters and deep cycle sealed batteries which exclusively use or store solar power". ▪ Item 48 of the same schedule which introduced VAT exemption on "inputs or raw materials supplied to solar equipment manufacturers for manufacture of solar equipment or deep cycle sealed batteries which exclusively use or store solar power as approved from time to time by the Cabinet Secretary for the National Treasury, upon recommendation by the Cabinet Secretary responsible for energy and petroleum". ◉ The amendment to the Act, though welcomed by the industry, created a lack of clarity on the scope of the exemption. The phrase "specialized solar equipment and accessories which exclusively use or store solar power" was open to subjective interpretations as technological innovation continued to introduce new solar equipment to the market that exclusively used solar power. The industry adopted a wider interpretation and considered equipment such as solar powered TVs, radios, refrigerators, water pumps, cookers etc. exclusively designed to be powered by solar PV should be covered under the exemption. On the other hand, Kenya Revenue Authority ("KRA") adopted the interpretation that equipment that could 'technically' only be powered by solar PV could qualify for exemption, thereby excluding any equipment or accessories that could potentially be powered by the grid (e.g. solar fridges, solar lanterns with a USB charging port etc)..), this difference in the interpretation resulted in the need for an amendment. ◉ In September 2018, the First Schedule to the Kenyan VAT act amended item 45 of the act by removing of the word ''accessories'' to limit the scope of VAT exemption to "Specialized equipment for the development and generation of solar and wind energy, including deep cycle batteries which use or store solar power", thereby harmonizing the Kenya VAT exemption with the 2016 provisions of EACCMA. This effectively meant that accessories or appliances (e.g. TV, radio etc.), which use solar power would not qualify for exemption. ◉ The VAT return and any related payment are due by the 20th day of the following month. Agents appointed by the tax authorities are required to deduct 2% of the 16% VAT and remit the withheld VAT by the 20th day of the following month.
Tanzania	**18%**	◉ A taxable person is allowed input VAT on taxable supplies made to the person and import of goods made by that person. ◉ Claiming of input tax on entertainment, sporting social or recreational clubs or associations and spare parts and repair or maintenance costs in respect of passenger vehicles is disallowed for VAT purposes.

EAC State	VAT Rate	VAT Highlights
		◉ Input tax claim time limit is maintained at six months. However, this time limit starts to run not only by reference to the date of the relevant supporting documentation (e.g. tax invoice, fiscal receipt etc.) but also by reference to the date of the time of supply. ◉ Exempt Solar Supplies - VAT Act 2016 exempts the supply of solar panels, modules, solar charger controllers, solar inverter, solar lights, vacuum tube solar collectors and solar batteries from tax. ◉ Currently VAT registered traders are supposed to submit returns to TRA online or in paper form. ◉ VAT is payable on 20th day of the following month of the business that is a due date of submitting the return. If the 20th day falls on the Saturdays, Sunday, or public holiday the return shall be lodge on the first working day following the Saturdays, Sunday or Public day.
Rwanda	**18%**	◉ Suppliers who provide zero-rated services or goods are entitled to recover input VAT incurred in making the supply. This is unlike exempt supplies, where input VAT recovery is not allowed. Therefore, zero rating is preferable to exemption. ◉ Exempt Solar Supplies - exempt for VAT purposes means that no output VAT is charged on the goods or services, and no input VAT can be claimed. The list of exempt goods and services are detailed in Article 6 of Law N°37/2012 of 09/11/2012. Among these includes the energy supply equipment a) energy saving lamps; b) solar water-heaters; ◉ The VAT returns and relevant payment are due to the Rwanda Revenue Authority (RRA) on a monthly basis by the 15th day of the following month. However, taxpayers with annual turnover of RWF 200 million or below may elect to file VAT returns or make payments on a quarterly or monthly basis.
Burundi	**18%**	◉ VAT is applicable as follows 18% on ordinary goods and services; 10% on food products and farming inputs; 0% on exports and international transport ◉ If a tax payer gets services from a person who is outside Burundi, the taxpayer is considered as if he/she has delivered taxable services and has received an output tax from that person residing outside Burundi as such must self-charge VAT on the payment made to the non-resident supplier and remit the VAT. ◉ Declarations are made monthly, to be filed by the 15th day of the month following the VAT collection period. Payment is to be made when the declaration is filed. VAT on imports is paid at the time when the goods are released for consumption, as are customs duties. ◉ The person reaches the threshold for registration in a given period if the total value of supplies of goods and services made, or to be made by the person during that period or part of this period is equal to or above one hundred million Burundian francs (100,000,000 Bif). The voluntary registration threshold is Bif twenty-four million (24,000,000 BIF)

EAC State	VAT Rate	VAT Highlights
		• If all goods or services supplied by a taxpayer during a value added tax period are taxable goods and services, the taxpayer is allowed a credit of the input tax paid in respect of taxable acquisitions or taxable imported goods during the tax period for the purposes of selling or delivering taxable goods and services. If a taxpayer imported goods part of which are exempted while others are taxable then the sum of input tax to be claimed will be the portion of the tax paid for the taxable goods in relation to the taxable business. No input tax is allowed if goods purchased in the country or taxable imported goods or services are for non-business use as well as for housing expenses or accommodation, reception, catering and travel expenses. • A registered person making supplies at the zero rate shall in all respects be treated as making a taxable supply.
South Sudan	**18%**	• South Sudan levies a sales tax rather than a VAT at a rate of 18% as per Taxation Act 2016 • The sales tax applies to manufacturers, importers and service providers in South Sudan. • Sales tax on imported goods is charged on all imports of goods into the Republic of South Sudan and the value on which the tax is assessed is the customs value, plus excise duty and customs duty. • Small enterprises with revenue of less than SSP 1 million are zero rated • Input VAT is not allowed in South Sudan • Manufacturers and service providers are required to file a return and pay the tax not later than the 15th day of every month for the tax collected in the previous month. Persons importing goods are required to pay the sales tax due prior to importation or no later than the time of import at the border.

Withholding Tax

EAC State	Withholding Tax Highlights
Uganda	• Withholding tax is a system of tax collection in which a payer (withholding agent) in respect of specified payments is required to deduct a specified portion of the payment entitled to the payee and remit that portion to the Revenue authority. • Section 123 (1) of the ITA requires the withholding agent to remit to the URA the amount that was withheld or should have been withheld within 15 days after the month in which the payment subject to withholding tax was made by the withholding agent. • Some of the payments that attract withholding tax if they are derived by residents or are sourced in Uganda include; payments to resident professionals; natural resource payments; management charges and interest and dividends. • Any payments of professional fees, consultancy fees or management fees will attract withholding tax at the rate of 6% (residents) and 15% (non-residents). • Goods or services supplied to the government of Uganda or government institutions also attract WHT at the rate of 6% (residents) and 15% (non-residents supplying services). • Imports of goods into Uganda also attract WHT at the rate of 6% and this is paid by the importer unless exempted from WHT.
Kenya	• Some of the payments that attract withholding tax if they are derived by residents or are sourced in Kenya include; payments to professionals; natural resource payments; management fees and interest and dividends. • Interest paid by financial institutions is subject to a 15% withholding tax. The rate is 25% for interest paid on bearer certificates and 10% for interest paid on bearer bonds, these rates apply to payments made to both residents and nonresidents. • Royalties (and natural resource income) paid to a resident are subject to a 5% withholding tax, the rate is 20% where paid to a nonresident. • **Technical service fees (professional fees) –** A 5% withholding tax is levied on the payment of technical service fees (as well as professional and management fees) where the services are provided by a resident, the rate is 20% where the service provider is a nonresident, unless otherwise provided in an applicable tax treaty. • **Other payments:** A 10% withholding tax is levied on the gross proceeds of rental income of nonresidents, but the tax is withheld by agents appointed by the government. As from 21 September 2018, a 20% withholding tax is levied on demurrage charges paid to nonresident ship operators and a 5% withholding tax is levied on insurance premiums paid to non-residents. • A 1.5% digital services tax (“DST”) is applicable on transactions undertaken through the digital marketplace which is appointed by KRA as a DST agent.

Tanzania	◉ Withholding tax applies to specific payments including payment that is to be included in calculating the chargeable income of an employee from the employment, payment of investment return including dividend, interest, natural resource payment, rent or royalty, payment in respect to service fee and contract payments and payment in respect to supply of goods to the government and its institutions. ◉ WHT on dividends from other corporations and interest is 10% (both resident and non-resident), royalties and natural resource payments is 15% (both resident and non-resident). ◉ WHT at 2% on payments for goods supplied to Government and its institutions by any person.
Rwanda	◉ WHT of 15% of the total amount, excluding VAT, is required to be accounted for on payments or other methods of extinguishing an obligation made by resident individuals, including tax-exempt entities. The WHT is due where such payments or other methods of extinguishing an obligation are made to a person not registered with the tax administration or to a registered person who does not have recent income tax declaration. ◉ Payments or other methods of extinguishing an obligation subject to WHT of 15% are related to the dividends, financial interests, royalties, service fees, including management and technical service fees, except transport services, performance payments and goods sold in Rwanda. ◉ There is also a WHT of 5% that is applicable on goods imported for commercial use.
Burundi	◉ Payments related to dividends, interest, study, financial, accounting and technical assistance, royalties are subject to 15% withholding tax. ◉ WHT on imports into Burundi is 3% of CIF ◉ WHT on public tenders is 4% on VAT exclusive amounts for resident persons and 15% for non residents ◉ Acquisition of movable and immovable property from non resident to resident persons is subject to 5% WHT for non residents and not applicable to residents selling properties and assets to residents.
South Sudan	◉ South Sudan does not currently have any double tax treaties ◉ WHT rates are applied to various payments such as dividends, interest, royalties, rent, government contracts. The tax is a final tax for non-residents. ◉ Rates are as follows 10% for dividend, interest and royalty payments. WHT on rental payments for non residents is 10% while for residents is 20%, WHT on payments related to government contracts for residents is 20%. ◉ . Advance business profits tax –All other imported goods except food items brought into or that enter South Sudan are subject to an advance payment of business profits tax at a flat rate of 4%. The tax is based on the customs value of the goods and is paid at the port of entry. A taxpayer that is required to file a tax return and that has made an advance payment on imported goods may obtain a credit against the amount of tax owed for the taxable year.

Levies and other Import Declaration Fees

Infrastructural levy/Railway Development Levy or Industrial Development Levy

This is a levy that is imposed on goods imported from outside the East African Community (EAC). It is levied in all the partner states in order to collect funds needed for regional infrastructure projects.

All imported goods (from outside EAC), except those exempted under the EACCMA EAC CET, are subject to a levy of 1.5 per cent on the customs value of imported goods.

The levy is intended to mobilize funds for regional infrastructure projects that will assist in improving the infrastructure (e.g railway infrastructure development) and reduce the cost of transport and the cost of doing business in the region.

Import Declaration Fees (Kenya only)

This is charged at importation in Kenya - the Import Declaration Fees are 2.25% of the Customs Value of the imported items and the fees are regarded as processing fees for declaring the details of imported items.

African Union Levy and Quality Inspection Levy (Rwanda only)

These are charged in Rwanda on all imported goods except those listed as exempt. The African Union Levy is 0.2%. Additionally, imported goods, regardless of whether they are exempted, are subject to a 0.2% Quality Inspection Fee (QIF). The levies are computed on the customs value of imported goods.

Customs Duties (Import Procedures and Required Documents)

Customs duty is levied on goods imported or exported from the EAC at specific or ad valorem rates. The East African Community Customs Management Act 2004 (EACCMA, 2004), the East African Community Common External Tariff (EAC CET) form part of the legal framework for customs operations in the region as a whole.

Solar energy technology has been evolving over time and (with many new products and combinations of products) this has posed a challenge in the classification and hence taxation of these products. Due to the changing technology, some importers have been taxed inconsistently even when the government policy is to promote the use of renewable energy.

Documents required for Customs Duties

The following documents are required for purposes of importing of goods, valuation of imported goods and rates of duty:

Uganda

a) A bill of lading or airway bill;
b) An insurance certificate;
c) Commercial invoices;
d) A Certificate of Origin;
e) Permits for restricted goods;
f) Purchase order;
g) Packing list;
h) Sales contract; and,
i) Any other supporting documents.

Kenya

a) Original commercial invoice;
b) Original bill of lading;
c) Import Declaration Form obtained from Customs;
d) Certificate of Inspection;
e) Packing list;
f) Any other document that may be required by Customs.

Tanzania

a) Final invoice;
b) Agent's authorization letter from the importer;
c) Import permits from TBS;
d) Exemption documents (If applicable);
e) Packing List;
f) Transport documents i.e Bill of Lading/Airway Bill/Road Consignment note.

Rwanda

a) Original commercial invoice;
b) Original bill of lading;
c) Import Declaration Form obtained from Customs;
d) Any other document that may be required by Customs.

Burundi

e) Original bill of lading or airway bill
f) Original commercial invoice and packing list
g) Transit clearance documents
h) Certificate of conformity
i) Certificate of origin
j) Import declaration form
k) Import license

South Sudan

a) Original bill of lading or airway bill
b) Original commercial invoice and packing list
c) Import license for restricted items
d) Certificate of Conformity
e) Certificate of Origin

Valuation of imported Goods

Goods imported into the EAC must be valued for taxation purposes i.e. a customs value must be determined. The customs value forms the basis for computation of customs duties which include import duty, Value Added Tax, Withholding tax, Excise duty and other duties e.g. Environmental levy, Infrastructure levy. Import Declaration fees, African Union Levy and others. Applicable tax rates are defined in the Customs External Tariff (CET).

Goods are valued using the following methods adopted by GATT (General Agreement on Tariff and Trade) and applied chronologically:

a) Transaction value;
b) Transaction value of identical goods;
c) Transaction value of similar goods;
d) Deductive value;
e) Computed value; and
f) Fall back value.

Rates of duty

Generally, the following rates will apply to an import of goods from outside the community:

Uganda

a) Import Duty – 0% - 25%
b) VAT - 18%
c) WHT - 6%
d) Infrastructural levy – 1.5%
e) Environmental levy - Varies and charged on second hand imports

Kenya

a) Import Duty – 0% - 25%
b) VAT - 16%
c) Railway Development Levy (RDL) - 2%
d) IDF - 1.5% - 3.5%

Additional 2.5% duty on goods purchased from EPZs

Tanzania

a) Import Duty - 0% - 25%
b) VAT - 18%
c) Infrastructural levy -1.5%
d) IDF - 2.25%

Rwanda

a) Import Duty - 0% - 25%
b) VAT - 18%
c) Infrastructural levy - 1.5%
d) AUL - 0.2%
e) QIF - 0.2%

Burundi

a) Import Duty- 0%, 10% or 25%
b) VAT -18%
c) Infrastructure levy- 1.5%
d) A fixed levy (WHT) of 3% of the CIF, as a down payment for income tax, on imports into Burundi
e) A safety tax of 1.15% on the value of imported goods
f) A lump-sum payment of BIF 10 000 on customs clearing agencies
g) An anti-pollution tax of BIF 2 million per vehicle on imported vehicles older than 10 years
h) An ad valorem tax of 50% on the customs value of imported plastic bags

South Sudan

a) Import Duty- 0%, 10% or 25%
b) VAT - 18%
c) Infrastructure levy- 1.5%
d) National Bureau of Standards inspection fees e.g. for solar batteries it is 5% of customs value.
e) Ministry of Trade fees for solar telecom equipment SSP 5000 per ton
f) Ministry of Trade fees for electronics and accessories SSP 300 per ton
g) Ministry of trade fees for spare parts SSP 300 per ton
h) Ministry of trade fees for small generators SSP 3000 and SSP 6000 for big generators

The common terms used or parties involved during the import process of these products

Table 1- Common Terms Used in Customs

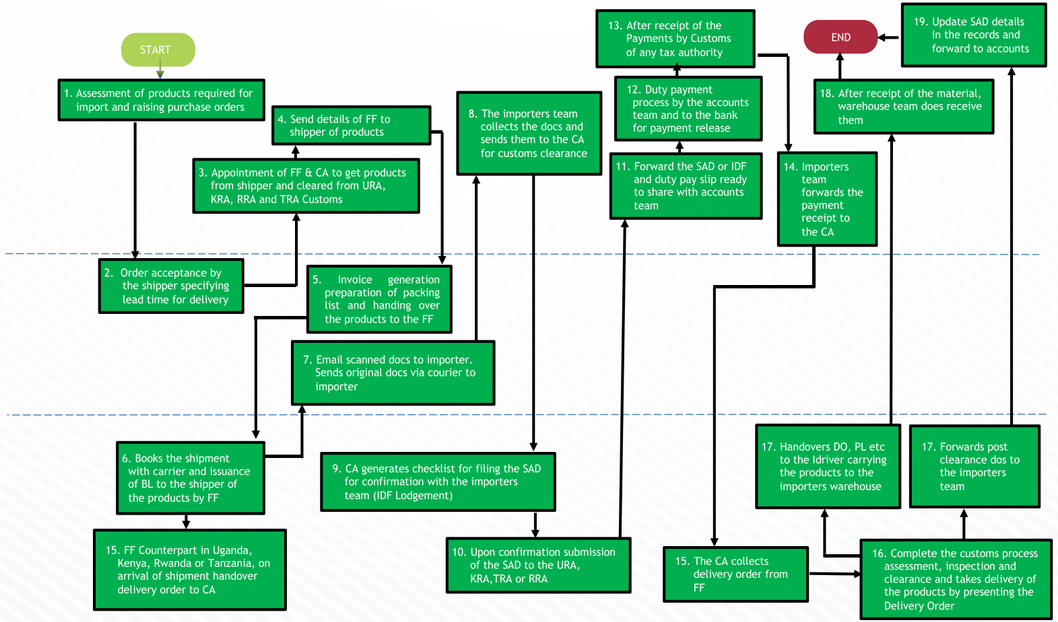
Terms	Definition
Importer	For customs purposes, this is the person who makes (or on whose behalf an agent) makes the import declaration, and who is liable for payment of the duties (if any) on the imported- sometimes regarded to as the consignee on the shipping documents.
Airway Bill or Bill of Lading	This is a negotiable document issued by the either the airline of shipping line as a contract of carriage of products. It's also a receipt of cargo accepted for transportation, and must be presented for taking delivery at the destination.
Single Administrative document (SAD) / Import Declaration Form (IDF)	This is a declaration document filed with the customs team by the importer or his agent to undergo the necessary import customs clearance formalities.
Customs Agent	A person licensed to act as an agent on behalf of the importer. He declares or produces the Import Declaration Forms to the Tax Authorities.
Shipping/Freight Bill	This is a document required by the Custom's Authorities for clearance of the goods for shipment.
Commercial Invoice	This is a customs document provided by the person or corporation that is exporting products across the international borders to EAC.
Delivery Note	The document accompanying a consignment of products that lists their description and quantity, Normally a signed copy by the importer is returned to the seller/exporter.
Parking List	This is a document that details the contents, and often dimensions and weight, of each package or container being exported by the exporter.
International Commercial Terms	These are series of pre-defined commercial terms published by the ICC, accepted worldwide in assignment of costs and responsibilities between the buyer and the seller. In brief, the commonly used terms in EAC include: (1) Cost And Freight (2) Cost, Insurance and Freight (3) Delivery Duty Paid (4) Ex-works and (5) Free On Board/Airport

Summary of the import process

Table 2 - Import Procedures and Required Documents

Process Particulars	Details
Objective	Explain import process of goods i.e. from issuance of a purchase order to products receipt by the importer of the products.
Mode of import	Air or Sea
Primary Actors	• Origin countries • Importers bankers • Importer teams • Purchase team • Customs agent • Freight forwarders • Accounts department • URA,KRA,TRA or RRA • Local transporters
Process Input	• Assessment of the components requirement and placement of order to the shipper.
Process Output	• Customs clearance of the components and their receipt by the importer at its premises/warehouse.
List of Documents Involved	• Bill of ladding or airway bill • An Insurance certificate • Certificate of Origin • Certificate of conformity from UNBS, KEBS, TBS or RBS • Commercial invoices • Customs bonds • Examination order issued by URA, KRA, TRA or RRA Customs • Import Declaration Form (IDF) • Purchase orders • Parking list • Delivery note • Single Administrative document • Payment slips and receipts from the Bank • Sales contract
Tax Exemption Documents required for those registered with Solar Associations	**Uganda** • A fresh letter or recommendation from USEA • Other import documents as the Tax Authority deems so to confirm the history **Kenya** • A fresh letter or recommendation from the Ministry of Energy • The details of other import documents

Import process flow chart-process map for import and customs clearance for solar products in the East African Region



Pre-Export Verification of Conformity (PVoC)

Uganda

Uganda also has Pre-Export Verification of Conformity (PVoC) Requirements.

PVoC is an inspection and verification programme carried out on goods by appointed inspection agents in the country of export. Verification of compliance to technical regulations and standards is provided for in Article 5 of the World Organization (WTO) Agreement on Technical Barriers to Trade (TBT).

The objective of PVoC is to minimize the risk of unsafe and substandard goods entering Uganda and protect consumers against dangerous, shoddy and substandard imported products.

Group 2 of the list of products under compulsory standards subject to the PVoC programme are the electrical and electronics including all solar equipment and all sorts of equipment relating to, producing or operated by electricity.

PVoC for Exports to Uganda

Exportation to Uganda now requires a Certificate of Conformity for products regulated under the Uganda Pre-Export Verification of Conformity to Standards Programme (PVoC).

To assure the customers of solar products about the quality and safety of imported goods, the Government of Uganda through the Uganda National Bureau of Standards (UNBS) has implemented a series of guidelines known as a Pre-Export Verification of Conformity to Standards Programme (PVoC).

The PVoC verifies the conformity of all regulated products and enforces their standards. Compliance to PVoC requirements are applicable in addition to any existing import processes. Every consignment of regulated products exported to Uganda must have a Certificate of Conformity.

UNBS is responsible for the adoption and application of the standards for both imported and domestically manufactured products in the Ugandan market. The PVoC Standards Programme is a conformity assessment and verification procedure applied to specific goods/products at the respective exporting countries, to ensure their compliance with the applicable Ugandan Technical Regulations and Mandatory Standards or approved equivalents.

The importer's responsibility is to ensure that their suppliers are conversant with import quality requirements and that their consignments are accompanied with a Certificate of Conformity (CoC) from the authorized PVoC Agent.

The exporter' responsibility is to ensure that their products or goods meet the regulations and quality requirements of Uganda before shipment by obtaining the necessary Certificate of Conformity (CoC) from the authorized PVoC Service Provider for all products subject to the PVoC programme.

In Uganda, authorised PVoC service producers include Intertek International and SGS Uganda Limited.

Kenya

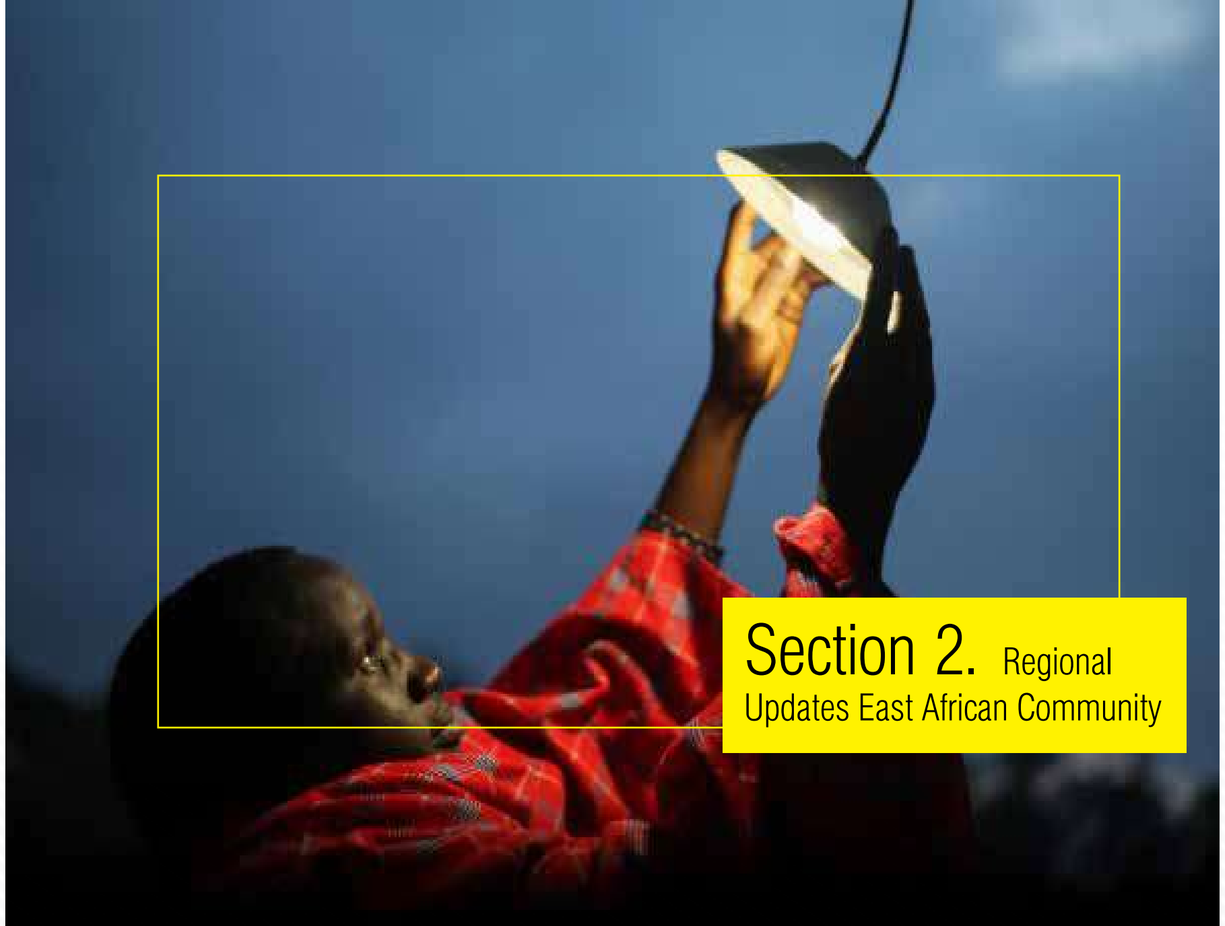
In Kenya the PVoC program was started on 29th September 2005 by KEBS, through the publication of Legal Notice No. 78 of 15th July, 2005 by the Minister for Trade and Industry. The program is also fully compliant with the provisions of Article 5 of WTO TBT Agreement.

The objectives of the PVoC are to ensure quality of products, health and safety, and environmental protection for consumers and to safeguard the country from unfair trade practices and dumping of substandard goods.

For solar products in Kenya KEBS/TC 092/SC 02 (TC Number) Solar and Wind Technologies (TC Name) are listed under KEBS Committees under the electro technical department.

Exporters should ensure their products or goods meet the regulations and quality requirements of Kenya before shipment by carrying out tests based on relevant Kenya Standards or approved specifications and/or obtaining the necessary Certificate of Conformity (CoC) from the appointed PVoC Partners for all products subject to the PVoC program.

Approved PVoC Partners by KEBS Include: Bureau Veritas, Cotecna, China Certification & Inspection (Group) Inspection Co. Ltd, Intertek International, SGS and QISJ. The role of these partners is to undertake conformity assessment activities in the country of origin for products being imported into Kenya. These activities include inspection, sampling, testing, sealing of full-load containers and issuance of COCs / COIs / CORs/NCR.



Section 2. Regional Updates East African Community

Regional Updates in the East African Community (EAC)

Cognizant of the need to strengthen regional cooperation in the area of renewable energy and energy efficiency within the framework of the regional integration process, the East African Community (EAC) Secretariat in 2019 requested that the United Nations Industrial Development Organization (UNIDO) support the establishment and first operational phase of the East African Centre for Renewable Energy).

EAC Centre of Excellence for Renewable Energy and Energy Efficiency (EACREEE) now operational in Kampala, Uganda

A new Centre of Excellence for Renewable Energy and Energy Efficiency (EACREEE) to complement and strengthen the ongoing EAC Partner States' initiatives in the areas of policy and capacity development, knowledge management and raising awareness as well as investment and business promotion is now operational in Uganda effective March 2019. EACREEE is supported by the government of Uganda, Partner States and Development Partners as well as the private sector to give full support to the Centre.

The EAC Secretariat pointed out that the focus of the energy sector is to ensure availability of sufficient, reliable, cost effective and environmentally friendly energy sources in the region across borders; promoting electricity interconnectivity to facilitate the broader EAC objectives of attracting investments and promoting competitiveness and trade. The Centre will provide the following services:

1) Develop and implement a coherent regional Renewable Energy and Energy Efficiency (RE&EE) policy;
2) Develop and execute regional programs and projects with other partners and mobilize funding; create synergies with ongoing programs;
3) Provide co-funding for demand-driven programs and projects executed by the private and public sector or civil society in the region (e.g. call for proposals and tenders);
4) provide a framework for capacity building activities and strengthen networks between research and training institutions as well as organize training of trainers workshops;
5) Update and provide RE&EE information and data for investors;
6) Act as think tank, lobbying agent and advisory platform for RE&EE in East Africa, and last;
7) Networking and co-organization of conferences, forums and workshops.

The East African Centre of Excellence for Renewable Energy and Efficiency expands partnership

Following the Memorandum of Understanding (MoU) that was signed with the International Solar Alliance (ISA) to increase cooperation on Sustainable Development of Solar Energy in the East Africa Community (EAC) region. The EACREEE and the International Renewable Energy Agency (IRENA) signed yet another MoU, establishing a new partnership aimed at boosting renewable energy deployment and advancing the transition to a sustainable energy future in the East African Community (EAC) region.

The signing of an MOU between the IRENA and EACREEE marks a major milestone towards strengthening global partnerships that are required to support EACREEE in implementing its Strategic Plan (2019-2023).

Within the framework of this MoU, IRENA and EACREEE will work closely across a number of key implementation focus areas, including cooperating and sharing information in the collection and analysis of data and research in areas of mutual interest, conducting joint capacity building activities under the Africa Clean Energy Corridor and establishing joint programmes with a view to accelerating the deployment of decentralized renewable energy solutions towards achieving universal energy access in the EAC. In the EAC region, IRENA is already implementing the Africa Clean Energy Corridor (ACEC) a regional initiative to accelerate the development of renewable energy.

35 participants Successfully Completed the EAC Regional Training Course on Standalone Solar PV Systems Design and Installation in Nairobi- Kenya

The East African Regional Training Course on Standalone Solar PV Systems Design and Installation officially kicked off at Kenyatta University Conference Centre, Nairobi, Kenya with 35 participants (10 of them women) from the EAC Partner States.

The objective of the training course was to provide comprehensive and up-to-date, theoretical and practical knowledge on standalone solar power systems design and Installation. The training course consists of lectures and practical sessions on design and installation and Maintenance of solar PV Systems. It covered a variety of topics, including an overview of solar PV technology, introduction to basic electricity, system design requirements and technical specifications, load estimation, battery storage, software systems and operation and maintenance.

This initiative will boost investing in solar and other renewable energy technologies which is vital for provision of affordable, reliable, and sustainable energy for all by 2030.

This regional training is therefore very important for enhancing capacity of local professionals in the solar industry who will be able to assist with clarifying the technical aspects of these solar systems when it comes to taxation matters of solar generation and development.

The training course was organized by the East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE) in collaboration with the International Solar Alliance (ISA), National Solar Energy Institute (INES) of France and Kenyatta University and support from Government of France, the United Nations Industrial Development Organization (UNIDO) and the Austrian Development Agency (ADA), Ministry of Energy Kenya and the East African Community (EAC) officially opened the East African Regional Training Course on Standalone Solar PV Systems Design and Installation.

Available opportunities to explore for solar companies and entrepreneurs in the EAC

- Capacity-building is a critical tool of the upcoming solar revolution worldwide and with such initiatives lobbying for policy changes as a collective effort is streamlined with a louder voice.
- Stimulating investments in the region. EACREEE is working with a number of partners to develop a project “Accelerating the Deployment of Solar Photovoltaic Systems” in the East African Region.
- Reducing the cost of finance and technology by mobilizing for funding needed by 2030 for massive deployment of solar energy, and paving the way for future technologies adapted to the local needs.
- Reduction in competency limitation - competency limitation in most system designers and installers seriously reduces the overall performance/output of solar systems and increases operation and maintenance costs.

“The fight for universal access to energy is a war to be fought through capacity building. What is at stake now is not so much of technological innovation but establishing quality in solar projects that involve quality equipment, right design and sizing, efficient maintenance, eliminating the available tax constraints and involving both men and women to work together through the life of a solar project.”

Section 3. The Most Common Exempted, Non-Exempted and Zero Rated Solar Products and Energy Efficient Appliances

From Micro PV to Mini-grids to Utility Scale

In the EAC, the application of PV technology now ranges from calculators to utility scale power generation. In between there are solar lanterns, PV lighting systems, water pumping systems and community scale micro-grids. As the scale increases so does the complexity of the system.

Figure 1 Micro-grid

This section highlights the variation in scale by discussing solar lanterns and solar home systems along with their system components.

PV System components and their description

Photovoltaic systems consist of some or all of the following components:

PV Panel	Wiring	Charge controller
Load	Inverter	Battery (Deep Cycle Battery)

Whether a system has some or all of these components is dependent on factors such as the size, the type of load powered, required current (AC or DC or both) and how it is used (all day or a few hours a day).

Pv

Photovoltaic (PV) or solar cells are the building blocks of solar panels. They are made of semiconductor materials. They convert sunlight into direct current (DC) electricity.

Groups of PV cells are electrically configured into modules/panels which can be connected into arrays to achieve desired power and voltage outputs.

A photovoltaic array is the complete power-generating unit, consisting of any number of PV modules and panels.

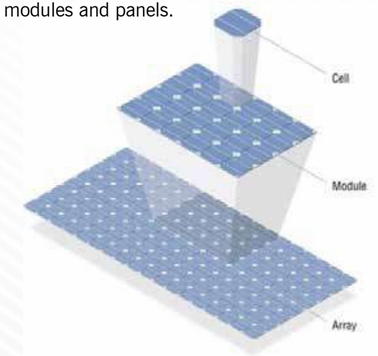


Figure 2: Photovoltaic Array

Figure 3: Photovoltaic Cell

Charge Controller

The solar charge regulator/charge controller is a voltage and/or current regulator which is connected between the solar panel and the battery. Its main function is to manage the charge and discharge of the battery and keep the battery pack in good condition.

The charge controller regulates the voltage and current flowing from the solar panel(s) to the battery since most solar panels can produce more than the rated voltage (for example a solar panel rated 12 volts can produce up to 20 volts). Without the regulation, the battery will be damaged due to overcharging. This is so because the maximum voltage for most batteries is between 16 and 15 volts.

The figure 5 shows a typical solar charge controller. However, they come in various forms and designs depending on the application and manufacturer. They vary in terms of their working voltage or system voltage and the current that they are supposed to handle during operation.

Figure 4: Charge Controllers

Inverters

This is a device that converts DC electricity into AC electricity, allowing the PV system to be used for appliances that require AC current. Inverters come in various forms and designs.

There are 3 basic types of inverters which are: square wave, modified (quasi) square wave and Sine wave.

This is the Micro-type that comes as an integral part in most of the Plug and Play Kits.

Figure 5: Inverters

Deep Cycle Batteries

In the context of renewable energy, when batteries are referred to, it usually means deep cycle batteries (DCB). DCBs are energy storage units in which a chemical reaction occurs that develops voltage and results in electricity. These batteries are designed to be cycled (discharged and recharged) many times. These batteries are significantly different from the normal/ ordinary car battery as illustrated.

Table 3 - Differences Between a Deep Cycle Battery and a Normal Car Battery

Deep cycle batteries	Normal car batteries
These are aligned with thick plates inside.	These are aligned with thin plates inside.
These are designed to power at a steady rate over a long period.	These are designed to deliver a burst of energy for a short time.
Used in stationary conditions (can't resist shock).	Used in mobile conditions (can actually resist shock).
Enough capacity for continuous charging.	Its capacity is too small for continuous charging.

Currently there are four different types of deep cycle batteries. These are the flooded batteries, gel batteries and Absorbed Glass Mat (AGM) batteries, and more recently – lithium-ion. These are all made differently.

Amongst conventional deep cycle batteries, the flooded battery is the most common, which is similar in appearance to the standard lead acid battery in a car. The gel batteries, as the name suggests, have a gel-like substance in them and the AGM batteries consist of acid suspended in a glass mat separator. The Flooded, AGM and gel batteries are used most frequently in off-grid scenarios with the gel as the most commonly recommended type.

Figure 6: Flooded Lead Acid Batteries	Flooded lead acid batteries: or wet cells, are the oldest type of rechargeable battery still in use. This type of battery contains a liquid in an unsealed container. This means that the battery must be kept upright and in a well-ventilated area to ensure safe dispersal of the hydrogen gas produced by these batteries during overcharging.
Common brands Include: Luminous, Trojan, Surrette and Deka, Sukam	
Figure 7: Absorbent Glass Matt (AGM)	Absorbent glass mat: (AGM) is a class of lead-acid deep cycle battery in which the electrolyte is absorbed into a fiberglass mat. The plates in an AGM battery may be flat like wet cell lead-acid battery, or they may be wound in a tight spiral. The internal resistance of AGM batteries is lower than traditional cells, they can handle higher temperatures, and self-discharge more slowly.
Common brands Include: Giant Power, Sun Xtender, Mastervolt, the Concorde, Luminous	
Figure 8: Gel Batteries	Gel Batteries: A gel battery (also known as a "gel cell") is a sealed, valve regulated lead-acid deep cycle battery and has a gel electrolyte. Unlike flooded lead-acid (wet cell) batteries, these batteries do not need to be kept upright.
Common brands Include: Deka, Champion, Sonnenschein, Victron, Trojan	
Figure 9: Lithium-ion Battery	Lithium-Ion: A relative newcomer to the field, being omnipresent in consumer electronics like cell phones and laptops. Lithium ion is physically smaller and lighter for a given capacity, it shows better performance characteristics, including a greater depth of discharge and less self-discharge, and if properly sized and managed, can survive more charge cycles and requires less user maintenance.

Diagrammatic illustration of a schematic of a typical stand-alone PV system powering DC and AC loads

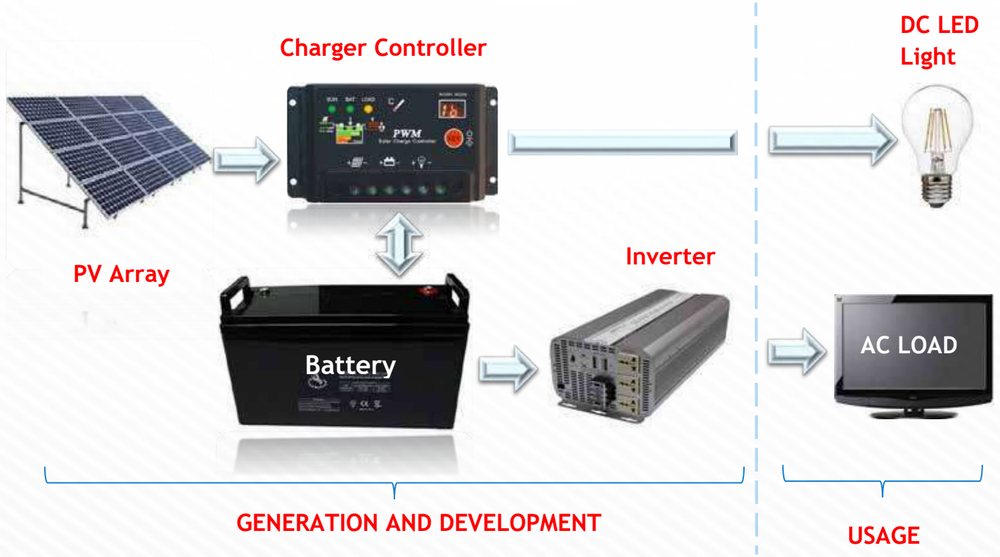


Figure 10: Illustration of a Typical Stand-Alone Pv System Powering DC and AC Loads

Table 4 - Range of Solar Powered Units

	Tier 1			Tier 2 & Tier 3			Tier 4 & 5
Definition	Task lighting and phone charging 4 hours of power/day 1 hour power/evening Lighting of 1,000 lmhr/day			General lighting, phone charging, television and fan (if needed) 4 hours of power/day or 8 hours of power/day 2 hour power/evening or 3 hour power/evening Electrical lighting, air circulation, television, and phone charging are possible Any medium-power appliances			Mini-grids with a capacity 5.5 KW to 15KW
Technology	**Solar lanterns			Stand-alone solar home systems			Utility scale generators/ mini-grids
	Pico-PV Systems <10.999Wp			Solar Home System >11Wp			
Category	Single Light only	Single Light & Mobile Charging	Multiple Light & Mobile Charging	SHS, Entry Level (3-4 lights, phone charging, powering radio, fan etc)	SHS, Basic capacity (as for entry plus power for TV, additional lights, appliances & capacity)	SHS, medium capacity (as for basis with extended capacities)	SHS, a higher capacity (as above but with extended capacities
Solar Module Capacities	0 – 1.499 Wp (indicative)	1.5–2.999 Wp (indicative)	3–10.999 Wp (indicative)	11– 20.999 Wp	21 – 49.999 Wp	50 – 99.999 Wp	100Wp +

A solar lantern meets Tier 1 on the Multi-Tier Framework for a household if it provides at least 1,000 lumen-hours (lmhr) / day and sufficient energy to keep a well-used mobile phone operational.

PV Pico versus Solar Home Systems

Pico-PV <10.999Wp	SHS >11Wp
'Solar Light & Lantern'	'Solar Home System'
Portable solar powered light, whether integrated or external solar panel and/or storage unit, and whether with or without phone charging function. In case of separate storage unit or panel, includes wires and plugs. Includes all housing, wiring, switches, and adaptors for phone charging. Storage unit is charged through solar panel.	System with external storage unit and panel with several appliances coming without AC/DC adapter to be charged/ run by the solar panel through storage unit. Includes all housing, wiring, and switches and a control unit. Components are specifically designed to work together as one solar home system to be sold to customers as one product, whether they come packaged in one box or in separate boxes and assembled in-country.

Figure 11: Pico System Illustrations

Figure 12: Plug and Play SHS Illustrations

Section 4. Harmonized System Coding and Classification

Table 5 - Pico –PV System

Solar System	Solar Module Capacity	Description	Classification		Tax Treatment Per State																													
			Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fee (IDF) (%)					
					UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Pico-PV <10.999Wp	0 –1.499 Wp (indicative) Single Light Only	These lanterns can perform only one or two basic functions, such as acting as a task light and/or as a solar torch/flashlight or with a charging system. The panel is in-built.		8513.10.90	10%	10%	10%	10%	10%	10%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	1.5 – 2.999 Wp (indicative) Single Light & Mobile Charging	These products come with more functionality than single light lanterns. These have single light and mobile charging facilities. (The solar panel is detached).		8513.10.90	10%	10%	10%	10%	10%	10%		18%	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	3–10.999 Wp (indicative) Multiple Light & Mobile Charging	These products have a control unit with Multiple Light & Mobile Charging.		8501.31.10**	0%	0%	0%	0%	0%	0%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A

***Please note that importers of above portrayed systems suffer different tax and customs treatment on the powered appliances and accessories such as the LED Bulbs.*

Table 6 - Solar Home System (SHS)

			Classification		Tax Treatment Per State																													
Solar System	Solar Module Capacity	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax VAT (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
					UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
**SHS >11Wp	11 – 20.999 Wp SHS, Entry Level (3-4 lights, phone charging, powering radio, fan etc)	The light units of these products are separated from the charging/battery unit. This allows the lighting to be provided in different rooms as per the customers needs, unlike lanterns, which can only supply lighting at one location at a time.		8501.31.10** or 8501.10.10**	0%	0%	0%	0%	0%	0%		0%	Exempt	0%	0%	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	2%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
	21 – 49.999 Wp SHS Basic capacity (as above plus power for TV, additional lights, appliances & extended capacity)	These are typically used for lighting up houses with multiple rooms, which would need more than one light and for using fans, TVs, radios and other small electrical appliances as needed.		8501.31.10** or 8501.10.10**	0%	0%	0%	0%	0%	0%		0%	Exempt	0%	0%	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	2%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A

***Please note that importers of above portrayed systems suffer different tax and customs treatment on the powered appliances and accessories such as the radios, televisions, fans and the LED bulb.*

Table 7 - Examples of some Brands from Solar Players and Systems in Each Level

Tier 1				Tier 2		Tier 3		Tier 4&5
Category	**Pico-PV Systems <10.999Wp**			**Solar Home System >11Wp**				
Spec/Loads	Single Light only	Single Light & Mobile Charging	Multiple Light & Mobile Charging	SHS, Entry Level (3-4 lights, phone charging, powering radio, fan etc)	SHS, Basic capacity (as for Entry plus power for TV, additional lights, appliances & capacity)	SHS, Medium capacity (as for Basic with extended capacities)	SHS, a higher capacity (with extended capacities)	Mini-grids
Examples	• Pico Plus • D.light S100	• Solantis SunStar • Solantis SunLight • Solantis SunMobile • Charge (Sunking) • D.light S500	• VP1 • M-Kopa 5 SHS • Fenix 10W • Msolar 6	• VP2 • M-Kopa 400 • Fenix 17W • D.light D30	• VP3 • Fenix 34W • Sologrid 120 Power hub • b Power 50 SHS	• VP4 • Solantis 50W • Sunking Home 400 • Sologrid 130 Power hub • Mobisol SHS	• VP5 • VP6 • Sologrid 160 Power hub • Mobisol SHS • Zolo Plug and Play SHS	• Sunfold • Power Pack from Tiger Power

Solar generators of Heading 85.01 (Panels, Charge Controller and the Deep Cycle Batteries) using additional note 2 to Section XVI of the East African Customs Common External Tariff can all be regarded as solar generators and development equipment.

Pictorial illustration of some brands that a present across the EAC (Plug and Play SHS kits) from solar players - SHS above 11wps

Figure 13 - Illustrations of Some SHS Systems in the Market

Solantis SHS 50Watts

Msolar 6 – some of the products from Suntransfer Ltd (Kenya)

SG 120 Power hub from Sologrid (Uganda)

Zolo plug-and-play, connected, SHS (Rwanda and Tanzania)

VP Series VP-1 from Village Power (Uganda)

b Power 50 Smart SHS from Bboxx (Kenya and Rwanda)

Figure 16 - Illustrations of some SHS Systems in the Market

Table 8 - Key Components

		Classification		Tax Treatment Per State																															
				Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
Component	Description	Pictorial (Illustrations)	HS Code	UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
PV Solar module	Photosensitive semiconductor devices, incl. photovoltaic cells, whether or not assembled in modules or made up into panels.		8541.40.00 Or 8541.90.00	Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt		Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt	Exempt Exempt	6% 6%	N/A N/A	N/A N/A	5% 5%	4% 4%	3% 3%	0% 0%	0% 0%	0% 0%	0% 0%	1.5% 1.5%	1.5% 1.5%	N/A N/A	3.5% 3.5%	2.25% 2.25%	N/A N/A	N/A N/A	N/A N/A
**Solar Charge control Units whether or not with USB Charging capability	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus for electric control or the distribution of electricity, including those incorporating instruments and numerical control apparatus. (For a voltage not exceeding 1,000 V).		8537.10.00	10%	10%	10%	10%	10%	10%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus for electric control or the distribution of electricity, including those incorporating instruments and numerical control apparatus. (For a voltage exceeding 1,000 V).		8537.10.00	0%	10%	0%	0%	0%	0%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A

***The most common brand includes the Morning star family.*

		Classification		Tax Treatment Per State																															
				Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
Component	Description	Pictorial (Illustrations)	HS Code	UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
DC to AC Inverters	Electrical transformers, static converters (for example, rectifiers) and inductors.		8504.40.00	0%	Exempt	0%	0%	0%	0%		18%	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar PV cables	Insulated (including enamelled or anodised) wire, cable (including co-axial cable) and other insulated electric conductors, whether or not fitted with connectors.		8544.49.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Metering Units	Electricity meters.		9028.30.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment Per State																															
				Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
Component	Description	Pictorial (Illustrations)	HS Code	UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Batteries/ Valve-Regulated Lead-Acid batteries – Electric accumulators, including separators therefore, whether or not rectangular (including square)	Flooded lead acid batteries		8507.20.00	25%	25%	25%	25%	25%	25%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	Absorbent glass mat (AGM)		8507.20.00	25%	25%	25%	25%	25%	25%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	Gel Batteries		8507.20.00	25%	25%	25%	25%	25%	25%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment Per State																															
				Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
Component	Description	Pictorial (Illustrations)	HS Code	UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Batteries-Lithium-ion	Lithium- ion		8507.20.00	25%	25%	25%	25%	25%	25%		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Power Display Meter	Measuring and checking instruments		9031.80.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Metallic Unit boxes	Units that combine the solar charge controller and the control unit. May also contain other components such as batteries that may be sealed with significant variation in appearance.		7326.90.90	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

Table 9 - Core Loads/Applications i.e. Lighting

		Classification		Tax Treatment Per State																															
				Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
Component	Description	Pictorial (Illustrations)	HS Code	UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
LED Lights	Other electric lamps and lighting fittings		9405.40.00	25%	25%	25%	25%	25%	25%		18%	16%	Exempt	Exempt	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	Lighting emitting diode- (LED) lamps		8539.50.00	25%	25%	25%	25%	25%	25%		18%	16%	Exempt	Exempt	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
	Other Electric filament or discharge lamps		8539.39.00	25%	25%	25%	25%	25%	25%		18%	16%	Exempt	Exempt	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar LED sensor light	DC LED lights powered from solar sensitive to motion, including all housing, wiring, and switches		9405.40.00	25%	25%	25%	25%	25%	25%		18%	16%	Exempt	Exempt	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment Per State																															
Component	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar PV Breakers/Surge Protectors	Electrical Apparatus for switching and protecting electric circuits or making connections to or in electric circuits.		8536.20.00	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Switches(DC/AC Isolator switches	Electrical Apparatus for switching and protecting electric circuits or making connections to or in electric circuits- other switches.		8536.50.00	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar LED Bulb Holders	Electrical Apparatus for switching and protecting electric circuits or making connections to or in electric circuits- Lamp holders.		8536.61.00	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

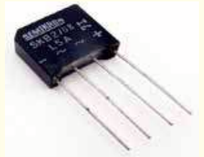
Component	Description	Classification		Tax Treatment Per State																															
		Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Bridge Rectifiers/ Transistors/ Diodes/	Transistors - An electrical device which acts as a valve or a switch in a circuit. Diodes-A diode is an electronic device which allows current to flow in one direction, and avoid the reverse. The electricity from the PVs goes through a diode into the rest of the circuit. The diode prevents energy from flowing back into the PV array.		8541.10.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
			8541.10.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A

Table 10 - Enhanced DC Powered Efficient Appliances

Classification				Tax Treatment Per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
TVs and their requisite cables	Video recording and reproducing apparatus.		8528.72.90	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Radios and their requisite cables	Reception apparatus for radio-broad casting, whether or not combined, in the same housing with sound recording or reproducing apparatus.		8527.19.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Multi-Media Speakers and Public Address Systems	Loudspeakers, whether or not mounted in their enclosures. Audio-frequency electric amplifiers; electric sound amplifier sets.		8518.29.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment Per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Fans and their requisite cables	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters.		8416.59.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Refrigerators	Refrigerators, freezers and other refrigerating or freezing equipment.		8418.29.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Projectors	Image projectors, other than cinematographic; photographic (Other than cinematographic) enlargers and reducers.		9008.50.00	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Torches	Portable electric lamps designed to function by their own source of energy (for example, dry batteries, accumulators, magnetos).		8513.10.90	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment Per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Mylar Films /blankets	Other plates, sheets, film, foil and strip, of plastics, non-cellular and not reinforced, laminated, supported or similarly combined with other materials.		3920.20.10	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

Table 11 - Other Enhanced Loads for Productive Use

		Classification		Tax Treatment per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Water Pump or Irrigation Pumps and Control Units	**Pumps for liquids, whether or not fitted with a measuring device; liquid elevators. surface pumps →		8413.81.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	10%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
	submersible pumps →																																
	Control Unit (Part of the pump)		8413.91.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	10%	6%	N/A	N/A	5%			0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A		

		Classification		Tax Treatment per State																															
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Irrigation Sprinklers with Timers	Mechanical appliances whether or not hand operated for projecting, dispersing or spraying liquids. Agricultural or horticultural Sprayers.		8424.41.00 Or 8424.49.00	0%	0%	0%	0%	0%	0%		Exempt	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Water Heaters	Machinery, plant for conversion of sunlight into heat for water heating using a solar thermal collector.		8419.19.00	0%	0%	0%	0%	0%	0%		Exempt	Exempt	Exempt	Exempt	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A		

		Classification		Tax Treatment per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Cookers	An apparatus for cooking food using the energy of direct sunlight, typically by means of reflective panels that concentrate the light on to a dark-colored pot in an insulated box.		8516.60.00	10%	10%	10%	10%	10%	10%		Exempt	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
DC Hair Cutters	Shavers, hair clippers and hair-removing appliances, with self-contained electric motor.		8510.10.10	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
DC Hair Clippers	Shavers, hair clippers and hair-removing appliances, with self-contained electric motor.		8510.20.10	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
DC Hair Straighteners	Other hair dressing apparatus.		8516.32.00	10%	10%	10%	10%	10%	10%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

		Classification		Tax Treatment per State																													
Appliance	Description	Pictorial (Illustrations)	HS Code	Import Duty (ID) (%)							Value Added Tax (VAT) (%)						Withholding Tax (WHT) (%)						Infrastructural Levy (ILV) (%)						Import Declaration Fees (IDF) (%)					
				UG	KE	TZ	RW	SS	BI		UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI	UG	KE	TZ	RW	SS	BI
Solar Servers	Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.		8471.70.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
DC Monitors	Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus.		8528.59.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A
DC Powered Maize Mill	Machines and mechanical appliances having individual functions. Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying or stirring machines.		8479.82.00	0%	0%	0%	0%	0%	0%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	0%	0%	0%	0%	0%	0%	N/A	3.5%	2.25%	N/A	N/A	N/A
Solar Street Lights	Other Electric Lights and Lighting Fittings.		9405.40.00	25%	25%	25%	25%	25%	25%		18%	16%	18%	18%	18%	18%	6%	N/A	N/A	5%	4%	3%	1.5%	2%	1.5%	1.5%	1.5%	1.5%	N/A	3.5%	2.25%	N/A	N/A	N/A

FAQs Frequently Asked Questions

Q1. Now that spare parts to the SHS are taxed, how do I price them to cover my costs (taxes) and make a profit?

Answer: This will depend on the actual taxes paid at importation, some of the components or spare parts attract lower import duties than the others. It's important to take not of these duties as they help inform the retail price to charge. Ensure that you consider the following factors when you are pricing: cater for the cost of the product, the expenses incurred to get the product to the customer and your profit margin.

Q2. Why do LED bulbs suffer import duty at importation yet they are regarded as an integral part of the system generation and development?

Answer: USEA/ KEREA/UNREEEA acknowledges that some previous tax exemptions have been abused by fraudulent businesses to maximize their profits and not to develop the industry and to reach the access goals. Therefore all solar players in the EAC are absolutely committed to support their respective governments in fighting this abuse and to ensure that tax incentives are only used by companies that are delivering the results that government decided that they want to incentivize.

BDO, acting on behalf of USEA/KEREA/UNREEEA has applied for a ruling on the LEDs and we hope this ruling with put the matter to rest.

Q3. Why do deep cycle batteries (DCBs) suffer import duty yet they are listed in the 5th schedule of the EAC CMA 2004 as exempt goods from Import duty?

Answer: Importers of DCBs as standalone have been subjected to import duty under Heading 85.07 ("Electric accumulators, including separators therefor, whether or not rectangular (including square) Lead-acid, of a kind used for starting piston engines"). This classification attracts import duty of 25%. For this reason, importers of DCBs for solar as stand-alone have been paying taxes.

The DCBs that should benefit from duty exemption (under paragraph 26 of the fifth schedule of the EAC CMA) are those used for development of solar energy. The differnet tax aurthorities have argued that DCBs can be used for other purposes other than solar development and therefore not every importer should benefit from duty exemption.

For example in Uganda, the URA and USEA reached an agreement that once an importer provides proof (clearance letter from Ministry of Energy and USEA) that they members of USEA, they should benefit from the exemption.

Solar companies that import solar products in Kenya, there is a new process which requires letters initiated at the Ministry of Energy with a list of support documentation required.

Q4. The Pay As You Go solar players normally have marketing agents who are not their employees and whose role is to only look for clients and get some commission on the same. Are these agents regarded as employees or independent consultants who only suffer WHT?

Answer: This is dependent on the relationship and the contract the company has with the sales agents. It important to note that the company does not control their working style and hours, do not provide them with tools of work, office space, company identification cards, transport expenses etc.

Appendices

Appendix 1

Areas to note from world customs

The Associations (USEA, KEREA, UNREEEA) and the industry players in the EAC region would like to also take cognizance of key definitions and guidance provided by the World Customs Organization with respect to classifying various products as follows:

Legal Note 3 to Section XVI (which contains Chapter 85) of the World Customs Organization

HS Nomenclature states that:
Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

Legal Note 4 to Section XVI (which contains Chapter 85) of the World Customs Organization

HS Nomenclature states that:
Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in Chapter 84 or Chapter 85, then the whole falls to be classified in the heading appropriate to that function.

General Rules for The Interpretation of the Harmonized System i.e. GRI 3(B) states that: Mixtures, composite goods consisting of different materials or made up of different components, and ***goods put up in sets for retail sale,*** which cannot be classified by reference to 3 (a), ***shall be classified as if they consisted of the material or component which gives them their essential character,*** insofar as this criterion is applicable.

Appendix 2

The General Interpretation Rules (GIRs)

There are six General Rules of Interpretation. Rules one to four are related and must be applied in sequence. Rules five and six stand on their own to be applied as needed.

RULE 1
The titles of Sections, Chapters and sub-Chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative Section or Chapter Notes and, provided such headings or Notes do not otherwise require, according to the following provisions [i.e. GIRs 2 to 6]:

Explanation: This is the first Rule to be considered in classifying any product. For practical purposes, this means that the Section and Chapter titles can be used as 1guidelines to point the way to the area of the Tariff in which the product to be classified is likely to be found. However, articles may be included in or excluded from a Section or Chapter even though the titles might lead

one to believe otherwise. Thus in order to classify a product, one must carefully check the Notes associated with any Sections and Chapters under consideration to see if the product is mentioned specifically as being included or excluded. Then it is necessary to go down to the Heading level and find a Heading that is worded in such a way as to include the product in question. Many goods should be correctly classifiable by reference to Rule 1 alone

RULE 2

a) Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as presented; the incomplete or unfinished article has the essential character of

b) the complete or finished article. It shall also be taken to include a reference to that article complete or finished (or falling to be classified as complete or finished by virtue of this Rule), presented unassembled or disassembled.

(c) Any reference in a heading to a material or substance shall be taken to include a reference to mixtures or combinations of that material or substance with other materials or substances. Any reference to goods of a given material or substance shall be taken to include a reference to goods consisting wholly or partly of such material or substance. The classification of goods consisting of more than one material or substance shall be according to the principles of Rule 3.

Explanation: Rule 2 (a) deals with the classification of unfinished, incomplete, unassembled or disassembled goods. Unfinished and incomplete goods can be classified under the same Heading as the same goods in a finished state provided that they have the essential character of the complete or finished article. As well, unassembled or disassembled goods may also be classified the same as the complete finished product. This rule does not apply if the text of the Heading or the relevant Legal Notes exclude the unfinished or unassembled product in question.

Explanation: Rule 2 (b) lays the groundwork for dealing with products, not classifiable through the use of Rule 1 or Rule 2 (a), which are composed of a mixture of materials or substances. It basically states that a Heading referring to a given material or substance includes mixtures of that substance with others. Similarly, a reference to a product composed of a given material or substance includes products composed either wholly or partly of the material or substance. This means that a mixed product may seem to be eligible for classification under two or more Headings. However, a given product can legally only be classified under one Heading. Rule 3 must be used to decide between alternate Headings.

RULE 3

When by application of Rule 2 (b) or for any other reason, goods are, prima facie, classifiable under two or more headings, classification shall be effected as follows:

a) The heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings each refer to part only of the materials or substances contained in mixed or composite goods or to part only of the items in a set put up for retail sale, those headings are to be regarded as equally specific in relation to those goods, even if one of them gives a more complete or precise description of the goods.

b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale, which cannot be classified by reference to 3(a), shall be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

c) When goods cannot be classified by reference to 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order among those which equally merit consideration.

Explanation: Rule 3 (a) states that where 2 or more Headings seem to apply, the one which provides the most specific description of the product in question should be used. This means that a Heading which names the actual product should be used in preference to one which only names a category to which the product could belong. Similarly, a Heading that describes the whole product should be used in preference to one which describes part of it. However, where two Headings both only describe part of the product, this rule cannot be used to tell which one to use even if one seems more specific or detailed than the other.

Explanation: Rule 3 (b) applies to mixtures, composite goods and sets that cannot be classified by use of the previous Rules. These should be classified as if they consisted of the material or component which gives them their essential character.

Explanation: Rule 3 (c) is for use in cases in which a good seems to fit in more than one Heading and the essential character cannot be determined. In this case, the product should be classified under the Heading which occurs last in numerical order.

RULE 4

Goods which cannot be classified in accordance with the above Rules shall be classified under the heading appropriate to the goods to which they are most akin.

Explanation: This is a “last resort” rule, most often used with new products.

RULE 5

In addition to the foregoing provisions, the following Rules shall apply in respect of the goods referred to therein:

a) Camera cases, musical instrument cases, gun cases, drawing instrument cases, necklace cases and similar containers, specially shaped or fitted to contain a specific article or set of articles, suitable for long-term use and presented with the articles for which they are intended, shall be classified with such articles when of a kind normally sold therewith. This Rule does not, however, apply to containers which give the whole its essential character;

b) Subject to the provisions of Rule 5 (a) above, packing materials and packing containers presented with the goods therein shall be classified with the goods if they are of a kind normally used for packing such goods. However, this provision does not apply when such packing materials or packing containers are clearly suitable for repetitive use.

Explanation: Rule 5 specifies how to classify containers. Rule 5 (a) deals with containers which:

- Are shaped or fitted for the article they will contain,
- Are suitable for long-term use,
- Protect the article when not in use,
- Are of a kind normally sold with such articles,
- Are presented with the articles they are designed to contain.

Containers which have these characteristics can be classified with the products which they contain. However, in cases where the container gives the product its essential character, it would be the container which would have to be classified.

Explanation: Rule 5 (b) deals with othe r types of containers and packing materials. These should be classified with the goods they contain if they are of a kind normally used for packing such goods and are not suitable for repetitive use.

RULE 6

For legal purposes, the classification of goods in the subheadings of a heading shall be determined according to the terms of those subheadings and any related Subheading Notes and mutatis mutandis, to the above Rules, on the understanding that only subheadings at the same level are comparable. For the purpose of this Rule the relative Section and Chapter Notes also apply, unless the context otherwise requires.

Appendix 3

Customs Valuation Methods

Customs duties can be designated in either specific or ad valorem terms or as a mix of the two;

In case of a specific duty, a concrete sum is charged for a quantitative description of the good, for example Ushs.1per item or per unit. The customs value of the good does not need to be determined, as the duty is not based on the value of the good but on other criteria.

In this case, no rules on customs valuation are needed and the Valuation Agreement does not apply. In contrast, an advalorem duty depends on the value of a good. Under this system, the customs valuation is multiplied by an advalorem rate of duty (e.g.5 percent) in order to arrive at the amount of duty payable on an imported item.

Customs valuation is a customs procedure applied to determine the customs value of imported goods. If the rate of duty is ad valorem, the customs value is essential to determine the duty to be paid on an imported good.

The Agreement stipulates that customs valuation shall, except in specified circumstances, be based on the actual price of the goods to be valued, which is generally shown on the invoice. this price, plus adjustments for certain elements listed in article8 of the GATT 1994, equals the transaction value, which constitutes the first and most important method of valuation referred to in the agreement.

Six methods of Custom Valuation (Sec 37,122 & 4thSchedule of the EACCMA)

- Method 1 Transaction value
- Method 2 Transaction value of identical goods
- Method 3 Transaction value of similar goods
- Method 4 Deductive method
- Method 5 Computed method
- Method 6 Fall-back (Residual Method)

Method 1 Transaction value

The price actually paid or payable is the total payment made or to be made by the buyer to or for the benefit of the seller of the imported goods, and includes all payments made as a condition of sale of the imported goods by the buyer to the seller, or by the buyer to a third party to satisfy an obligation of the seller.

Conditions to be fulfilled;

- There must be no restriction on the disposition or use of the goods by the buyer, other than restrictions which;
- Are imposed or required by law in the country of importation;
- Are limited to the geographic area in which the goods may be resold;
- Do not substantially affect the value of the goods.

- There must be evidence of a sale for export to the country of importation (i.e. commercial invoices, contracts, purchase orders, etc.).
- No part of the proceeds of any subsequent resale, disposal or use of the goods by the buyer will accrue directly or indirectly to the seller, unless adjustment can be made in accordance with provisions in Article VIII of the GATT.
- The buyer and seller are not related, but even if so, the use of the transaction value is acceptable if the importer demonstrates that:
  - The relationship did not influence the price, or the transaction value closely approximates a test value

Method 2 Transaction value of identical goods

The transaction value is calculated in the same manner on identical goods if the goods are

- The same in all respects including physical characteristics, quality, and reputation;
- Produced in the same country as the goods being valued;
- And produced by the producer of the goods being valued.

For this method to be used, the goods must be sold for export to the same country of importation as the goods being valued. The goods must also be exported at or about the same time as the goods being valued.

Method 3 Transaction value of similar goods

The transaction value is calculated in the same manner on similar goods if;

- Goods closely resembling the goods being valued in terms of component materials and characteristics.
- Goods which are capable of performing the same functions and are commercially interchangeable with the goods being valued.
- Goods which are produced in the same country as and by the producer of the goods being valued. For this method to be used, the goods must be sold to the same country of importation as the goods being valued. The goods must be exported at or about the same time as the goods being valued.

Method 4 Deductive value

Deduction of value from the price of the greatest aggregate quantity sold;

The Agreement provides that when customs value cannot be determined on the basis of the transaction value of the imported goods or identical or similar goods, it will be determined on the basis of the unit price at which the imported goods or identical or similar goods are sold to an unrelated buyer in the greatest aggregate quantity in the country of importation.

The buyer and the seller in the importing country must not be related and the sale must take place at or about the time of importation of the goods being valued. If no sale took place at or about the time of importation, it is permitted to use sales up to 90days after importation of the goods being valued. The price per unit is the price at which the greatest number of units is sold.

The greatest aggregate quantity is the price at which the greatest number of units is sold to unrelated persons at the first commercial level after importation at which such sales take place. To determine the greatest aggregate quantity all sales at a given price are taken together and the sum of all the units of goods sold at that price is compared to the sum of all the units of goods sold at any other price. The greatest number of units sold at one price represents the greatest aggregate quantity.

Method 5 Computed value

This method, determines the customs value on the basis of the cost of production of the goods being valued, plus an amount for profit and general expenses usually reflected in sales from the country of exportation to the country of importation of goods of the same class or kind.

Method 6 Fall-back method

When the customs value cannot be determined under any of the previous methods, it may be determined using reasonable means consistent with the principles and general provisions of the Agreement and of Article VII of GATT, and on the basis of data available in the country of importation. To the greatest extent possible, this method should be based on previously determined values and methods with a reasonable degree of flexibility in their application.

Uganda Solar Energy Association (USEA) is an independent non-profit association dedicated to facilitating the growth and development of solar energy business in Uganda and the East African region. USEA was formed in 2016 by the private sector companies that deal in solar energy business with support from Private Sector Foundation Uganda, Ministry of Energy and Mineral Development and Rural Electrification Agency and was registered under the Societies Act.

The objectives of the Association include but not limited to:

Promote Relevance: Position solar energy as an important source of power in Uganda's energy mix.

Distribution: Promote the use of solar energy at all levels i.e. from the smallest private dwellings, to small and medium enterprises, through to commercial and public bodies and up to large parastatal and industrial establishments.

Networking: Strengthen the local solar industry, enhance business opportunities and facilitate business growth for the sector though networks, research and knowledge sharing.

Self-Regulation: Create and promote a self-regulating environment that facilitates the offering of high quality solar energy solutions and services to customers.

Information Hub: Provide a forum for information and knowledge exchange on matters relating to solar energy development and utilization.

Capacity Building: Coordinate, seek and utilize funding, business and training opportunities for the growth of the sector and businesses of members.

Contact Details:
+256 200 923 345 | info@useaug.org
https://www.useaug.org/

The Kenya Renewable Energy Association (KEREA) is an independent non-profit association dedicated to facilitating the growth and development of renewable energy business in Kenya.

KEREA was formed in August 2002 by members of the Renewable Energy Resources Technical Committee of the Kenya Bureau of Standards (KEBS) and is registered under section 10 of the societies act.

Amongst its key roles are promoting the interests of members of the renewable energy industry among government, public sector, the general public and any other organizations that may impact on the development of the industry; and the creation of a forum for the dissemination and exchange of information and ideas on matters relating to renewable energy development and utilization in Kenya.

The objectives of the Association include but not limited to:

- Increase awareness levels and adoption of renewable energy technologies.
- Increase in the number of qualified renewable energy practitioners and increase in skill level and improvement in the quality of products and services provided.
- Pro-renewable energy policies and regulations and improved business environment for renewable energy.
- Increased coordination between actors and stakeholders when developing and implementing renewable energy initiatives.
- Diverse KEREA membership and increased collaboration/cooperation between members and partners.

Contact Details:
+254 740 541 896 | administrator@kerea.org
http://kerea.org/

UNREEEA is a not-for profit organization incorporated in 2015 because of the private sector players in the various renewable energy and energy efficiency sub-sectors signing a memorandum of understanding to come under one umbrella body. The primary role of the Uganda National Renewable Energy and Energy Efficiency Alliance (UNREEEA) is to avail a platform for consolidating the renewable energy and energy efficiency private sector wing as well as improving its business environment.

With a renewable energy resource potential of 2000 MW of hydro power, 450 MW of geothermal, 460 million tonnes of biomass standing sustainable annual yield of 50 million tons, and an average of 5-6 kWh/m2 / day of solar energy, wind and geothermal power, Uganda has the ability to meet its skyrocketing energy demands sustainably while promoting business through a vibrant public-private sector partnership as it is the development trend worldwide today.

It is in the above arrangement that in 2016 the private sector players in the various renewable energy and energy efficiency association signed a memorandum of understanding to come under one umbrella called the Uganda National Renewable Energy and Energy Efficiency Alliance (UNREEEA) with an aim of availing a platform for consolidating the sector leadership.

The Alliance as an umbrella organization brings together a network of six member associations under which various companies and enterprises subscribe. Among these associations also includes the Uganda Solar Energy Association (USEA).

Contact Details:
+256 414 699 577 | info@unreeea.org
https://unreeea.org/

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This handbook is a comprehensive guide to the most common imported solar products, parts, accessories and efficient powered appliances, and it also acts as a reference document and training resource for individuals, firms, officials and organizations involved in the movement, release and clearance of off-grid solar products across the EAC region.

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