KISIMA SOLAR PV PROJECT

115MWp/100MWac

May 2025

<u>Disclaimer</u>: This Study report was redacted in May 2025 and relies on the information currently available on the project and the market, to the best of TotalEnergies' knowledge. All the information, including the indicative tariff of electricity, contained in this Study are subject to the evolution of the following (not limited to) main parameters: the EPC market, the bankability of the project documents, TotalEnergies internal committee approval, debt financing conditions and rates, technical, social, environmental factors, and may be updated at a later stage of development of the project.

Contents

SECTION 1. Executive Summary of the project

TotalEnergies Renewables is developing a 115 MWp / 100 MWac Solar Photovoltaic project near Kisima, in Mpwapwa District, in Mtera ward, in the Dodoma region – "**Kisima Solar PV project**".

A new Special Purpose Vehicle (SPV) incorporated and registered in Tanzania will be created to undertake the design, finance, construction, and operation of the solar photovoltaic plant.

This SPV will sell the generated electricity to TANESCO under a long-term Power Purchase Agreement (PPA). The PPA is still under negotiation with TANESCO. The PPA will capture the framework, the obligations, and responsibilities of the requirements for the solar photovoltaic project as well as the tariff. The project is subject to project financing and will need to pass through Lender's requirements to be fully bankable.

SECTION 2. Summary of Company legal Formation

Total Eren initiated the development of Kisima Solar PV Project in 2022. In September 2023, Total Eren, of which TotalEnergies already held close to 30% of stakes, was wholly acquired and integrated by TotalEnergies. The merger will be completed in 2025.

Currently, the project is developed by TotalEnergies Renewables, which is 100% hold by TotalEnergies SE. A new SPV will be created to undertake the design, finance, construction, and operation of the solar photovoltaic plant. This SPV will be hold by TotalEnergies Renewables and by a JV partner.

TotalEnergies has been active in Tanzania since 1969 through its affiliate TotalEnergies Marketing Tanzania Limited. As the SPV has not been created yet, TotalEnergies Marketing Tanzania Limited is applying for the Certificate of Incentives for the Kisima Solar PV project. This Certifiacte of Incentives will be then transfered to the SPV.

2.1 TotalEnergies

TotalEnergies is a global multi-energy company active in all energies (oil, gas, new molecules, electricity and renewables) and across more than 130 countries. TotalEnergies' ambition and mission is to develop energy that is ever more affordable, cleaner, more reliable and accessible to as many people as possible with an objective of net zero by 2050, together with society.

As part of its ambition to get to net zero by 2050, TotalEnergies is building world class cost-competitive portfolio combining renewables (solar, onshore and offshore wind) and flexible assets (CCGT, storage) to deliver clean firm power to its customers. At the end of 2023, TotalEnergies' gross renewable electricity generation installed capacity was 22 GW. TotalEnergies will continue to expand this business to reach 35 GW in 2025 and more than 100 GW and 100 TWh of net electricity production

by 2030 with the objective of being among the world's top 5 producers of electricity from wind and solar energy.

TotalEnergies' multi-energy strategy in Tanzania

TotalEnergies has been active in Tanzania since 1969 and is pursuing a multi-energy strategy in Tanzania:

- Cross-border East African Crude Oil Pipeline (EACOP) project – 1443km pipeline transporting production from Tilenga and Kingfisher oil projects in Uganda to the port of Tanga in Tanzania. EACOP Shareholders are TotalEnergies (62%), TPDC (Tanzania Petroleum Development Corporation) (15%), UNOC (Uganda National Oil Company) (15%) and CNOOC (China National Offshore Oil Corporation) (8%);
- Marketing and Service presence with 100+ retail stations across the country through its affiliate TotalEnergies Marketing Tanzania Limited. TotalEnergies is the market leader with 14% market share on fuel and 35% market share in lubricants;

TotalEnergies plans to develop 500-700MW of renewable projects by 2030 in Tanzania on the wake of Kisima solar PV project through an extended MoU agreement with TANESCO. Kisima Solar PV project would be the first step in the realization of this strategy achieved both via greenfield and via acquisition of projects.

2.1.1 TotalEnergies Renewables

THE RENEWABLES DIVISION

On track to be one of the world's top 5 producers* of renewable electricity by 2030

Global portfolio
Gross capacity - Q4 2024

Our global solar, wind and storage portfolio is of 97 GW, including 62 GW under development

2,000 employees**
mobilized to originate, develop, build & operate renewable energy projects to achieve our ambition in electricity

>1,300 projects in **operation**

~250 projects in **construction** in **60 countries**

Leveraging TotalEnergies strengths:
- Access to capital
- Worldwide footprint
- Technical/ project expertise
- Brand awareness

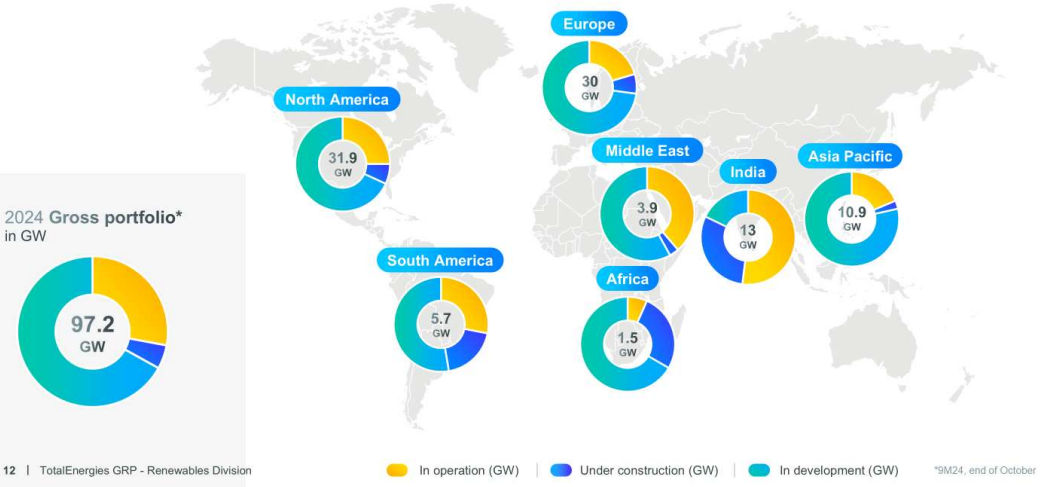
Fastest start on clean energy among European energy majors

$4 bn/year
investment in electricity and renewables

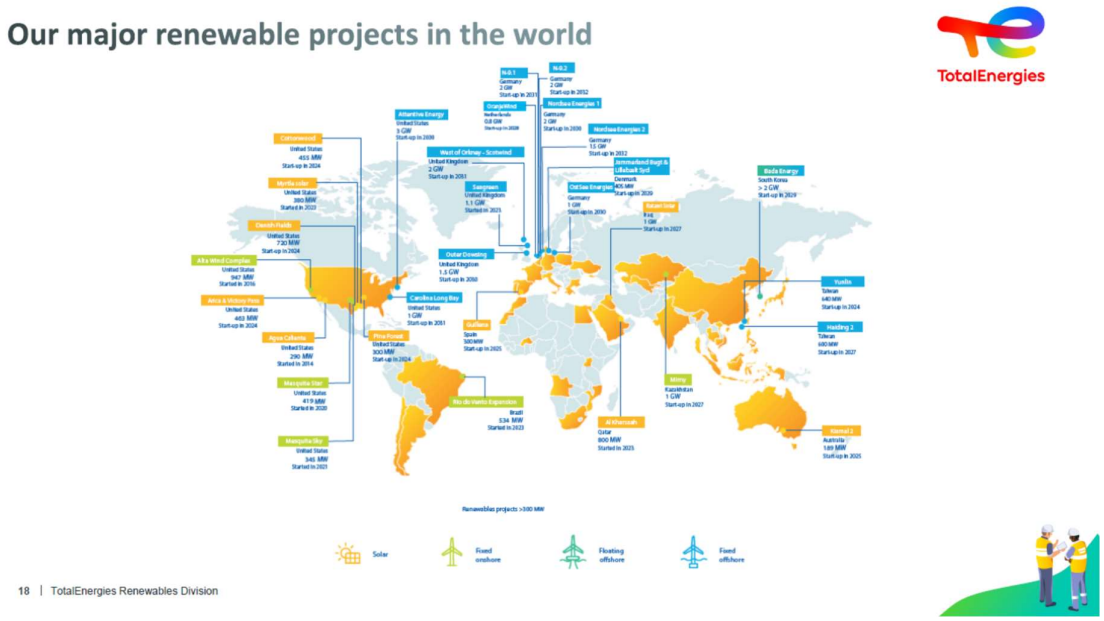
*Excluding China

**Without Clearway and Saft

A GLOBAL PORTFOLIO OF RENEWABLE ELECTRICITY GENERATION



*9M24, end of October



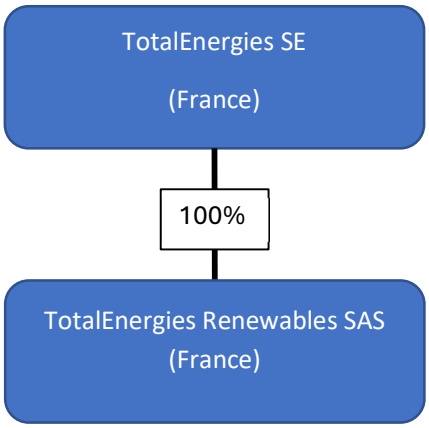
2.1.2 TotalEnergies Marketing Tanzania Limited

TotalEnergies Marketing Tanzania has been active in Tanzania since 1969 where they are one of the leading retailers.

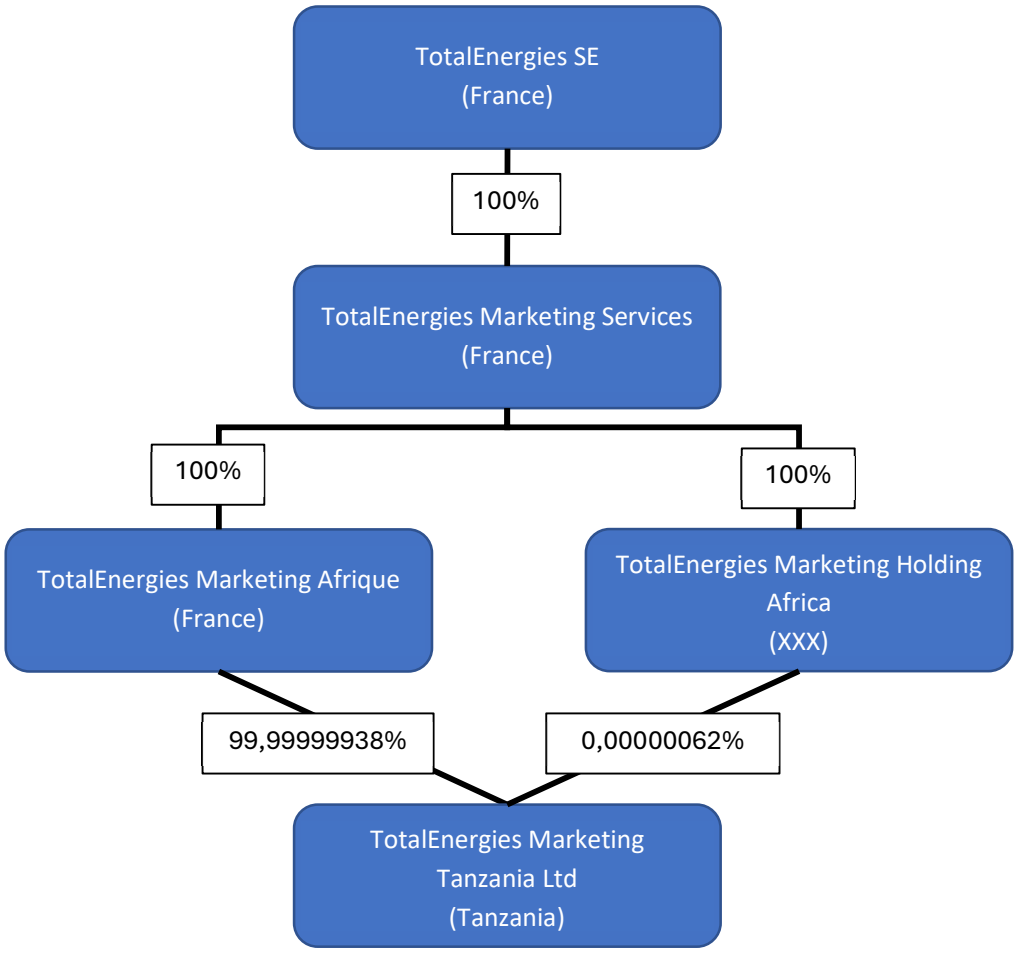
- more that 170 employees in Tanzania
- A network of approximately 100 service stations, where TotalEnergies Marketing Tanzania retail our fuel and products, and offer related services.

SECTION 3. Company Shareholder structure and nationality

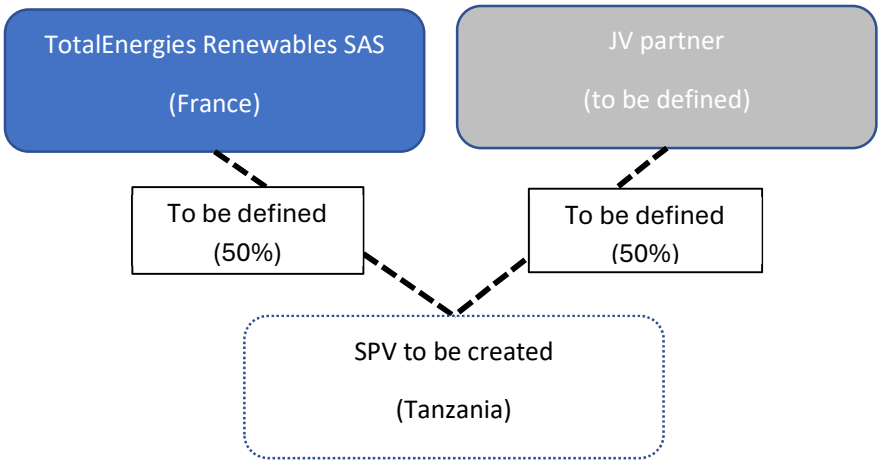
3.1 TotalEnergies Renewables



3.2 TotalEnergies Marketing Tanzania



3.3 SPV to be created in Tanzania



SECTION 4. Description of the project location

Located in Dodoma, the Kisima site was selected for the solar project based on a combination of technical, environmental, and climatic advantages. In addition to offering sufficient available land, proximity to the existing substations with available capacity to connect the project, and limited ecological and social sensitivities, the site benefits from highly favorable weather conditions for solar energy production. The area receives an average of 6 to 7 hours of direct sunlight per day and boasts a Global Horizontal Irradiation (GHI) ranging from approximately 1,800 to 2,000 kWh/m²/year—an excellent resource for photovoltaic systems. Furthermore, the region's semi-arid climate ensures low annual cloud cover and minimal rainfall, maximizing year-round solar potential.

4.1 Screening process and selection of the site

In November 2022, Total Eren carried out a grid study on 5 substations of TANESCO's grid (Makambako, Iringa, Dodoma, Singida and Shinyanga) to determine which substations have sufficient available capacity to interconnect Total Eren's 100MWac/115MWp solar plant. From this study, the Dodoma region and the Iringa regions were selected as preferred regions to implement the solar project.

To fast pace the implementation of the solar project and avoid a lengthy process of getting derivative rights on a land, Total Eren asked TANESCO to assist in the selection and securing of a site for the solar project.

In February 2023, TANESCO proposed 4 sites (Ismani, Kisima, Mbalawala, Kisinga) to Total Eren in the Dodoma and Iringa regions. These sites were analyzed based on the following criteria:

- Size
- good irradiation
- flat topography without major obstruction that can cause shading on PV panels and with reasonable dust exposure
- closeness to existing substation/grid to minimize transmission costs and losses
- outside of urban areas to imply minimum impact on local communities
- no major flooding area identified
- proximity of roads
- absence of ESIA/resettlement possibly induced.

Following this desktop analysis, 2 sites were selected as preferred sites for the solar project: Ismani in the Iringa Region and Kisima in Dodoma Region. A TANESCO and Total Eren delegation visited the two sites in April 2023 to confirm their suitability for the project. Following these site visits, Total Eren confirmed that both sites were suitable to host a solar project and decided to start with the Kisima site to carry out the pre-feasibility studies, as it is the largest of the two.

	Site	Constraints
1	Ismani – Iringa region	Smaller area with no possibility of extensions
2	Kisima – Dodoma region	No constraints detected
3	Mbalawala – Dodoma region	Land involves at least 25 houses, roads and economical activities with potential necessary resettlement
4	Kisinga – Iringa region	Land covered with forest with potential necessary deforestation

4.2 Sites suitability and accessibility

Kisima site benefits from a high global horizontal irradiation.

The site is 126 kms from Dodoma, the closest big city (~2 hours car drive).

A104 road is located nearby for trucks transporting. It is a dual-lane asphalt road, with wide turns, in very good condition.

Closest distance to the arrival port for goods import is Dar Es Salaam (566kms, 9h30 car drive).

4.3 Site description

The project site is located in the Commune of Kisima, Municipality of Mpwapwa, more precisely in the Dodoma region in Tanzania. The size of the site represents a global area of about 466 Ha of land. TotalEnergies Renewables plans to develop 115 MWp / 100 MWac in a first phase, which will occupy an area of about 220 Ha over the 466 Ha of lands that have been secured. An extension to this project in a second phase will be decided later, depending on the maximum capacity injectable on the national grid. The Phase 2 Project will have a capacity between 50 MWac and 100 MWac.

The project area consists of customary farmland, primarily dedicated to millet cultivation carried out by the residents on a substantial scale. A well-constructed tarmac road known as the Dodoma-Iringa Road facilitates access to the site, this route spans approximately 128.2km in distance from Dodoma.

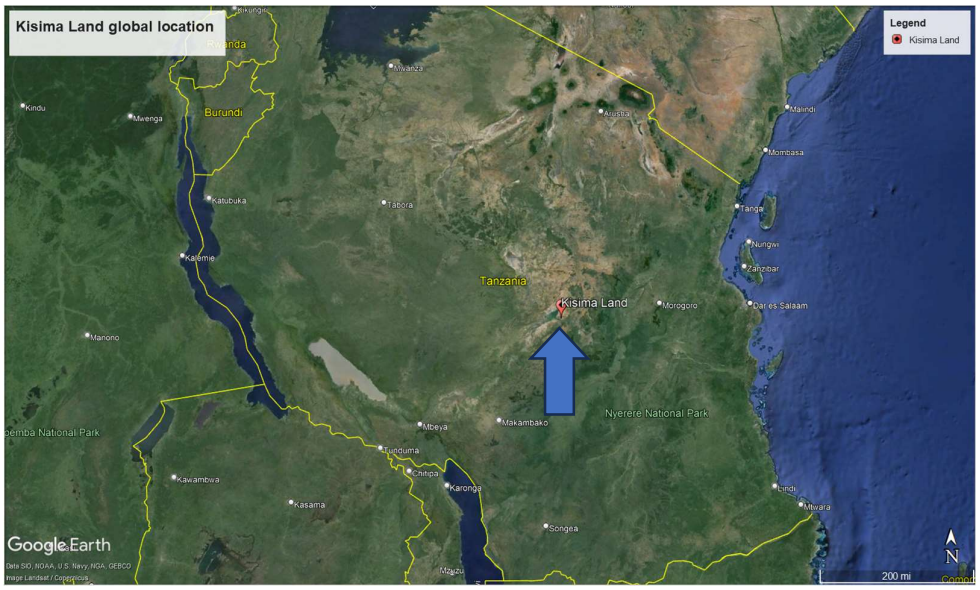


Figure 1: Kisima Land global location

The Kisima site is delimited by the following landmarks:

SITE LANDMARKS	N	E
D	9219894	828593.3
E	9218918	827618.5

F	9218569	827164.7
G	9218311	829966.4
I	9218170	826482.4
J	9218095	828525
K	9219813	830554.4
L	9220099	828676.6
O	9218107	826592

Figure 2: Kisima Solar PV Project Location

4.3.1 Land lease with TANESCO

Total Eren and TANESCO have signed a Land Commitment Letter in August 2023, valid for 2 years, committing TANESCO to have Kisima Land available for leasing to the Project Developer for the implementation of Kisima Solar PV Project.

TANESCO is currently in the process of acquiring the land of 466 Ha located in Kisima, Dodoma region.

There are currently farming activities on the land and some graves to be resettled. TANESCO is handling resettlement and compensation process in coordination with the Ministry of Energy, Ministry of Lands, Housing and Human Settlement Development through Regional Assistant Commissioner of Lands, Mpwapwa District Concil.

TANESCO identified and delineated the area of interest and moved to express interest in the area to the Government via Mpwapwa District who gave a green light to undertake Land Acquisition for the project.

TANESCO then requested for properties valuation for compensation from the District Land Office. The valuation exercise is still in progress but conducted by District Valuer in accordance with various regulations, including:

- Land Act (Assessment of the value of Land for Compensation Regulation, 2001)
- Valuation and Valuers (General) Regulations, 2018

- Land Acquisition Act

To identify Project Affected Persons (PAPs), announcements were made to the public. Parties with interests in the project area turned up and were verified by Local leaders (Villages and Hamlet Chairs as well as Village Executive officers).

- Project area boundary was first demarcated with ribbon tapes and PAPs with property within the boundaries were required to position themselves at their respective parcels.
- Valuer, Land Surveyor, Land Officer and Local leaders visit one PAP at a time to identify and verify the PAP, take measurements of the land, assess the buildings & crops and offer the respective PAP Land form no. 3 that details all properties affected and Land Form 69 which is a document granting the PAP legal power to claim compensation.
- Office work then follows to compute the compensation for each PAP to generate the valuation report.

TANESCO has identified 151 families among the PAPs, including 107 individuals in Kisima village and 44 individuals in Mtera. The land acquisition process does not lead to physical resettlement. The economic activities impacted by the Project are farming activities with crops harvesting and livestock breeding as the land was used for grazing animals.

The Land Acquisition process is still ongoing.

Once Land Acquisition process is complete, TotalEnergies will enter into a land lease agreement with TANESCO to develop Kisima Solar PV project.

4.4 Site studies

Several preliminary feasibility studies were carried out on the Kisima site by specialized external contractors:

- A Topographical Survey by *Survex Ltd* in 2023, which concludes that the site topographic profile is characterized by slow slopes and is considered as suitable for solar trackers installation.
- A preliminary Geotechnical Survey by *Geoprimosi Engineering Ltd* in 2023. The ground investigation revealed that the site is characterized by sandy CLAY, well graded GRAVEL and clayey SAND to 2.0m depth. Their conclusions allowed to identify suitable foundations for the project such as circular steel pole or H- Section to be installed at a depth ranging between

1.5m and 2.0m, or also, pad foundation to be installed at a depth ranging between 0.5m and 3.0m.

- A preliminary Environmental and Social Impact Assessment Study by *Tansheq* in 2023
- A hydrological study by *Ekosource* in November 2024 which concluded that the flooding threat to the area is not substantial and can be managed effectively with some prudent remedial and preventative measures such as the construction of various drainage infrastructures to prevent some of the flood impacts.
- An Environmental and Social Impact Assessment Study by *Artelia* that should be finished in May 2025. The project applied to NEMC for EIA. The application is currently under review.

Moreover, TotalEnergies has launched a RFP process to lead a geotechnical study on the site. This study is assumed to take place in May/June 2025.

SECTION 5. Description of the project objectives

The objective of this project is to develop, construct, and operate a 115 MWp / 100 MWac grid-connected solar photovoltaic (PV) power plant in Kisima Village, Mtera Ward, Mpwapwa District, Dodoma Region, with the aim of contributing to Tanzania's national energy goals, improving grid reliability, and promoting sustainable development.

Specifically, the project seeks to:

- Improving energy generation needs, advance national electrification

Support the National Electrification Program (NEP) and Tanzania Vision 2025 by increasing the installed capacity of clean energy, improving energy access, and enhancing grid stability, particularly in the central and underserved regions of the country.

Supply 100 MW of renewable electricity to the national grid through a long-term Power Purchase Agreement (PPA) with TANESCO, helping to meet growing national power demand and reduce dependence on fossil fuel-based generation.

- Provide cost-effective and reliable power generation

Compared to other power generating technologies, solar PV shows the advantages of being quick to deploy, with low risks in the technical execution due to the relative simplicity of solar electric systems. During the operation phase, solar systems require limited maintenance due to the fact that this is a static installation: certain minor equipment can be changed on a regular basis, inverters need to be replaced every 5-10 years and panels usually have an economic life of 30 years, time at which repowering might be needed. In addition, no raw material or fuel is required for the production of solar electricity.

- Diversify energy mix, Decrease dependency on gas and hydro

Kisima Solar PV project represents a strategic step in Tanzania's efforts to diversify its energy sources, mitigate drought risks associated with hydropower (drought) and reduce the reliance on natural gas for power generation, prioritizing domestic and industrial use.

- Contribute to Climate Change Mitigation by developing Clean energy / Carbon emission reduction

Avoid significant greenhouse gas emissions by displacing conventional generation with solar power, in line with Tanzania's commitments under the Paris Agreement and its Nationally Determined Contributions (NDCs).

The photovoltaic power plant, as an energy-generating facility, holds significant potential to contribute positively to reducing global greenhouse gas emissions and combating climate change. Key positive impacts include carbon emission reduction and the promotion of clean energy.

With a life cycle approach, which takes into account all carbon contributions of the project, including the energy necessary to manufacture and transport the modules, the overall project GHG emission will be much lower than if other energy sources were used to produce the same amount of electricity. Based on studies of similar projects, the carbon footprint for the construction of solar power plants generally falls within a range of 20-60 g CO_2 per kWh over the lifecycle of the plant.

What contributes the most to the carbon footprint is the construction and transport of modules. GHG emissions during operations are very low.

The functioning of the PV plant itself does not directly cause GHG emissions. Thus, during the operation phase, no CO2 will be released by the power plant into the atmosphere. The electricity produced by the photovoltaic power plant will allow to avoid the consumption of energies that can impact air quality such as carbon-based resources (wood, oil…) and thus reduce air pollution. Very limited emissions are forecasted linked with guard site inspection, cleaning and maintenance.

- Stimulate Local Economic Development

Generate local employment and business opportunities during the construction, operation, and maintenance phases, while enhancing technical capacity in the renewable energy sector through skills development and knowledge transfer.

- Catalyze Private Sector Investment

Demonstrate the viability of large-scale solar energy development in Tanzania and encourage further private-sector participation in renewable infrastructure, aligned with the investment priorities of the Tanzania Investment Centre (TIC).

SECTION 6. Summary of the sector performance

The electricity supply industry experienced several challenges, including an increase in electricity demand for social-economic development, attributed to emerging technologies, such as clean cooking, electric mobility, and standard gauge railways. To address these challenges, the government, in collaboration with stakeholders, is working to improve the sustainability of the electricity supply industry.

The energy market in Tanzania has experienced significant growth. Since 2011, power generation is growing rapidly, by more than 5%/year.

Installed capacity:

In December 2024, with the commissioning of the 2.1 GW Julius Nyerere hydropower plant, the installed capacity reached 3.36 GW, with 3.95 for the main grid, 0.04 GW from off grid and 0.2 GW for private entities own-use[1].

TANESCO owns 85.3% of the total installed capacity (93.0% of the main grid capacity and 75.4% of the off-grid capacity).

SONGAS, an independent power producer, is the second largest producer in Tanzania with its 189 MW Ubongo gas-fired power plant.

[1] EWURA Electricity sub-sector regulatory performance updates – December 2024

Table 1 – Tanzania installed capacity in December 2024

Description	Entity	Capacity (MW)	Percentage (%)	% Share
Main Grid for Sale	TANESCO	2 836,95	93,04%	90,73%
	IPP (SONGAS)	189	6,20%	
	SPP owned by private entities	23,26	0,76%	
	Total	**3 049,21**	**100,00%**	
Off Grid for Sale	TANESCO	28,942	75,42%	1,14%
	SPP owned by private entities	7,4	19,28%	
	VSPP owned by private entities	2,03	5,29%	
	Total	**38,372**	**100,00%**	
own-use	Private Entities	273,22		8,13%
	Total	**273,22**		
Total	TANESCO	2 865,89	85,27%	100,00%
	IPP (SONGAS)	189	5,62%	
	SPP (all private entities)	30,66	0,91%	
	VSPP (all private entities)	2,03	0,06%	
	own-use (Private Entities)	273,22	**8,13%**	
	Total	**3 360,80**	**100,00%**	

Less than 6MW of capacity has been installed from solar resources, showcasing the need to expand the solar energy market and potential for growth.

Currently, only one large scale renewable energy project in the country is reaching the construction stage: Kishapu-Shinyanga, 50MWp solar project financed by AFD under EPC scheme for TANESCO.

Electricity generation:

Tanzanian electricity generation mix consists mainly of natural gas and hydropower.

For the fiscal year 2023/24, the main grid energy generation mix consisted of natural gas (67.1%) and hydropower (32.4%), liquid fuel (0.5%) and biomass (0.01%)[2]. There was an increase in hydropower generation due to the commissioning of the Julius Nyerere hydropower project.

TANESCO accounts for 83% of the electricity supply in FY 2023/24. SONGAS is the second largest producer in Tanzania and accounts for 13.7% of the electricity supply in FY 2023/24.

The country has more than doubled its electricity imports since FY 2027/18, reaching 264 GWh in FY 2023/24, but does not export power.

[2] EWURA Electricity sub-sector regulatory performance report for the financial year 2023/24

Access to electricity:

Access to electricity increased from 15% in 2010 to 48% in 2023, one of the fastest rates of electrification in sub-Saharan Africa, even though marked disparities remain between the cities (82% electricity access) and rural areas (28%)[3]. The country was previously aiming to reach 100% electrified areas by end of 2021. The new self-imposed deadline for the government is now 2030, at which time 75% of households should be given access to electricity by the national grid and mini-grids, while the remainder would rather be supplied "off-grid verified quality solutions".

Grid:

The power grid consists of 63 substations interconnected by 7 810 km of transmission lines (end of December 2024), including 1 525 km of 400 kV, 3 861 km of 220 kV, 1 845 km of 132 kV, and 580 km of 66 kV. The country's first 400 kV line between Mbeya and Shinyanga, also known as the Backbone Transmission Investment Project, was commissioned in 2017.

Tanzania has 132 kV interconnections with Uganda, 33 kV and 66 kV interconnections with Zambia, and 33 kV interconnections with Kenya.

Power System Master plan 2020 Update (PSMP 2020 Update)

The Plan provides a forecast of the anticipated needs of the population and economy of Tanzania for the period to 2044 under base case assumptions. The projected average peak demand growth in MW for the total system, Grid and isolated System/Grids is projected to reach 17,611 MW (2044) from 1,120 MW in (2019) which is equivalent to an average growth of 11.7 percent per year.

On order to meet the forecasted demand, the PSMP 2020 Update plans an increase of 11%/year in the power capacity by 2044, to 20 GW, up from 1.9 GW in 2023, with the following capacity mix: gas 6.7 GW (33%), hydro 5.7 GW (28%), coal 5.3 GW (26%), geothermal 1.0 GW (5%), wind 0.8 GW (4%), and solar 0.7 GW (4%).

It also aims to reduce system losses to 12% in 2025/26 (14.6% for 2022/2023 fiscal year) and to raise the electricity consumption per capita to 490 kWh in 2025/26 (four times the 2022 level). Furthermore, the plan foresees an expansion of transmission lines over the period.

The whole investment is set at US$38bn, of which US$9.5bn will be required over 2019-2025. Around US$33bn is dedicated to generation and US$5.7bn to transmission.

Kisima Solar PV project is in line with the Government's strategy for power.

[3] World Bank data for 2023

The project aims at improving energy generation needs in Tanzania and the aspirations within the Ministry of Energy and TANESCO in achieving goals of providing cost effective and reliable power generation and distribution in the country.

SECTION 7. Summary of market analysis

7.1 Renewable Energy Sector in Tanzania

Tanzania presents a strong and growing market for renewable energy, particularly solar, due to rising electricity demand, low rural electrification rates, and government efforts to transition toward a more diversified and sustainable energy mix.

The country's total electrification rate remains below 40%, with rural access at around 30%, creating significant unmet demand, especially in off-grid and underserved regions. Urbanization, industrial expansion, and economic growth continue to drive electricity consumption higher. In response, the Government of Tanzania has prioritized renewable energy development under its National Energy Policy and the National Electrification Program (NEP), both of which promote private sector participation and independent power production.

For large-scale, grid-connected solar projects, the Tanzania Electric Supply Company Limited (TANESCO) plays a central commercial role as the primary power off-taker. TANESCO is the state-owned utility responsible for generation, transmission, and distribution of electricity across the national grid. Through Power Purchase Agreements (PPAs), TANESCO procures power from Independent Power Producers (IPPs), including utility-scale solar developers. This offtake structure provides long-term revenue certainly for investors and is essential for securing project financing.

TANESCO's participation in solar integration is supported by government policy and regulated by the Energy and Water Utilities Regulatory Authority (EWURA), which ensures transparency in licensing, tariff setting, and interconnection standards. The company is also a key stakeholder in national energy planning, working closely with the Ministry of Energy to align grid expansion and renewable energy deployment with national development goals.

The solar market in Tanzania is further supported by:
- High solar irradiance, averaging 4.5–6.5 kWh/m²/day across most of the country;
- Declining costs of solar PV systems, making grid-connected solar increasingly competitive with fossil fuel-based generation.
- Favorable investment climate, including fiscal incentives (e.g., VAT and import duty exemptions for solar equipment), investor protections under TIC, and a growing pool of local technical expertise.

In summary, Tanzania offers a strategically favorable and increasingly stable market for solar energy investments. With strong government backing, a committed utility off-taker in TANESCO, and substantial untapped demand, the country presents a compelling opportunity for scalable, grid-connected solar projects that align with national electrification and sustainability targets.

7.2 Main actors

The electricity sector is governed by the 2008 Electricity Act, amended in 2016, which sets the rules for the generation, transmission, distribution, supply, and use of electric energy. It also deals with cross-border power trade, rural electrification planning, and liberalization of the power sector.

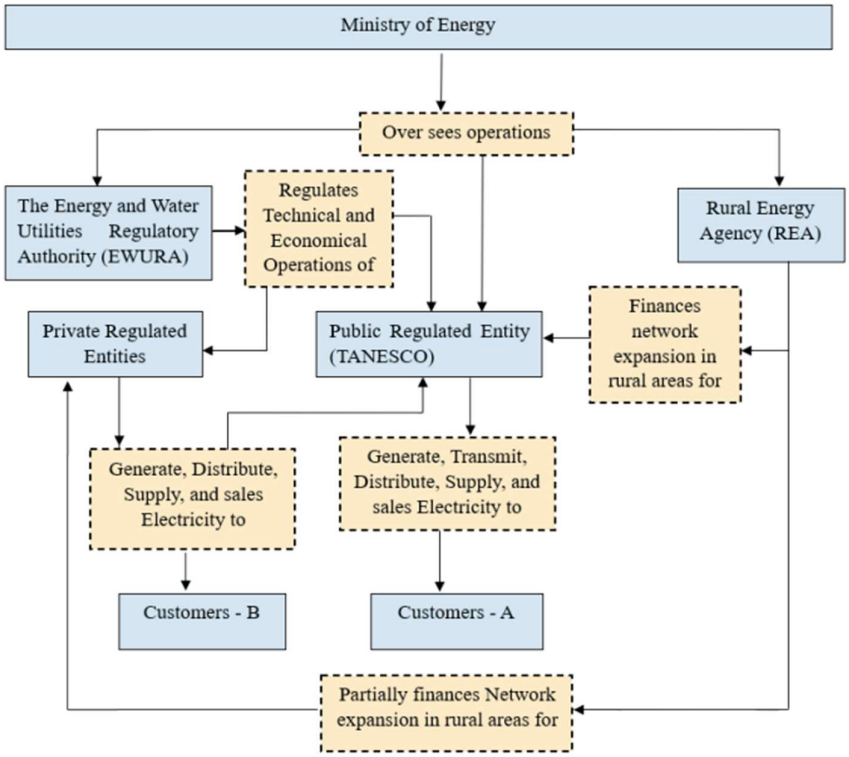
The **Ministry of Energy** (MoE) is in charge of the country's energy policy and development, in particular through the Electricity & Renewable Energy Division and the Petroleum & Gas Division, which was created in 2017 from the partition of the Ministry of Energy and Minerals.

Energy and Water Utilities Regulation Authority (EWURA) is an autonomous, independent regulatory authority established by the Energy and Water Utilities Regulatory Authority Act. It is responsible for the technical and economic regulation of Tanzania's electricity, petroleum, natural gas, and water sectors.

The **Rural Energy Agency** (REA) was established in 2007 along with the Rural Energy Fund (REF) under the 2005 Rural Energy Act. REA is an autonomous agency which works under the Ministry of Energy to stimulate energy access in rural areas and finance eligible rural energy projects.

REA is the main driver for the development of off-grid and rural electrification projects through the Tanzania Energy Development and Access Project (TEDAP) and the National Rural Electrification Program (NREP), whose aim is to increase the country connection rate to the grid to reach universal access to modern energy by 2030 (75% through national grid and mini-grid, 25% via off-grid solutions). In 2020, AFD granted a loan worth US$225m, of which half will be dedicated to rural electrification projects and half to the Tanzania-Zambia interconnection project. After a communication of the REA at the end of 2023, all of 12.318 villages in the country could be electrified by June 2024, one year ahead of schedule.

Tanzania Electric Supply Company (TANESCO) is a vertically integrated utility owned by the Government of Tanzania and generates, purchases, transmits, distributes, and sells electricity to Tanzanian Mainland and sells bulk power to the Zanzibar Electricity Corporation. Currently, it provides the vast majority of the effective generating capacity to the national grid, and is responsible for transmission and distribution, serving customers on the main grid and in 18 isolated grids.



7.3 Tanzania IPP/Renewable Energy regulation and framework, main counterparts and contribution to project

7.3.1 Legislation

We are being advised on the basis of the following legislation:

- The Electricity (Generation, Transmission and Distribution) Activities 2019;
- The Electricity (Procurement of Power Projects and Approval of PPAs) Rules 2019 (the Electricity Procurement Rules);
- The Electricity Act No. 10 of 2008 (the Electricity Act);
- The Energy and Water Utilities Regulatory Authority Act [Cap 414 R.E. 2006] (the EWURA Act);
- The National Energy Policy, 2015 (the NEP);
- The Public Private Partnership Act R.E. 2019 (PPP Act);
- The Public Private Partnership Regulations 2020 (PPP Regulations);
- The Public Procurement Act 2011 (Public Procurement Act); and
- The Public Procurement Regulations 2013 (the PPR).

And their amendments

7.3.2 Legal framework

Power projects in Tanzania may be undertaken through the following methods:

- public procurement, i.e., tenders published by Government agencies and institutions;
- public-private partnership; and
- procurement initiated by a purchasing license.

Kisima Solar PV project is undertaken as an unsolicited proposal as there was no tender issued.

As per rule 4 of the Electricity Procurement Rules, TANESCO has made an application to EWURA to initiate procurement of unsolicited proposal for Kisima Solar PV project. That application was granted by EWURA and is proceeded in accordance with following the steps below:

Procurement initiated by TANESCO (purchasing licensee):

STEP I: Application to EWURA - Completed

After TANESCO's acceptance of the project concept, TANESCO initiated the procurement of Kisima Solar PV project by lodging a written application to EWURA for unsolicited proposal.

STEP II: Preliminary evaluation of the application by EWURA – Completed

EWURA evaluated the contents of the application received and verified its completeness.

STEP III : Detailed evaluation of the application by EWURA – Completed

EWURA, after satisfying itself as to the completeness of the application, evaluated the application and approved it. EWURA assessed the following:

- For site specific project, whether sufficient project preparation has been completed with a view to ensuring that project risks are well understood and mitigated;
- For capacity based projects, whether the proposed capacity is expected to meet the projected demand and how the project fits with the PSMP; and
- Conformity of the project with the requirements of the Electricity Act, EWURA Act and the Electricity Procurement Rules.

STEP IV: Decision from EWURA – Completed

After the conclusion of the detailed evaluation process, EWURA approved the application, considering inter alia that:

- the findings of the detailed evaluation were complete;
- the project is least cost effective or provides social-economic benefits in excess of projects that are listed in the PSMP;
- that the project developer has sufficient technical and financial ability to undertake the project successfully; and
- that the applicant has undertaken sufficient project preparation to demonstrate that:
    - the project has a feasible technology to generate electricity;
    - the project has a feasible site including proof of ability to acquire the necessary land; and
    - the risks of the project have been clearly identified and there are proposed mitigation measures.

STEP V: Initiation of procurement

Note that once TANESCO receives approval from EWURA, TANESCO is entitled to recover the reasonable costs of the procurement process through a tariff, in the event the procurement process ultimately results in a new source of power supply.

STEP VI: Procurement through unsolicited proposals: Ongoing

Upon receiving approval from EWURA, TANESCO officially invited TotalEnergies to start negotiation of the PPA.

EWURA may select a representative to observe the procurement process.

For an unsolicited proposal, TANESCO shall demonstrate that:

- The costs and risks of the said project are reasonably weighed against the costs and risks of a similar project
- The project developer's return on equity is reasonable when weighed against the return on equity of projects with similar costs and risks
- The proposed price is below or within the range of indicative prices
- The major components of the project (the procurement of the EPC contractors) shall be subject to competitive tendering
- The outcome of the procurement was not affected by ownership interests or payment of any commission, gratuity or fee

STEP VII: Negotiation of PPA:

TANESCO shall, after obtaining EWURA's approval, proceed with the negotiation of the PPA in accordance with the Electricity Procurement Rules and the Best Practice Guidelines.

TANESCO shall conclude the procurement process together with the negotiation of a PPA in the shortest period possible and in any event not more than six (6) months after the approval for initiation of procurement.

EWURA may sit as an observer during the negotiation of the PPA and it shall only be responsible for providing clarification on some legal and regulatory issues during the negotiation.

During negotiations, the parties may, with prior approval of EWURA, agree on terms that are not included or that are at variance with the PPA model, provided that such terms aim at protecting the public interest.

STEP VIII: Application for approval of PPA:

TANESCO shalllodge an application to EWURA after all the parties to the PPA have agreed to its terms and conditions but before the said PPA is signed. TANESCO shall submit a detailed breakdown of the project developer's costs and finances to EWURA, including forecasts of capital and operating expenditure, depreciation, debt servicing costs and the projected return on investment for the project.

STEP IX: Evaluation of PPA by EWURA:

Where a PPA has been procured via an unsolicited proposal, EUWRA shall approve the costs recoverable by TANESCO via a tariff if:

- the costs and risks of the PPA are reasonably weighed against the costs and risks of similar projects;
- the project developer's return on equity is reasonable weighed against the return on equity of projects with similar costs and risks;
- the proposed price is below or within the range of the indicative price;
- the major components of the project shall be subject to competitive tendering processes, where appropriate; and
- the outcome of the procurement was not affected by ownership interests of the payment of any commission, gratuity or fee.

In addition, EWURA will consider whether:

- the application is compliant with the Electricity Act, EWURA Act and the Electricity Procurement Rules;
- costs of the PPA were prudently incurred and benefit the economy;
- the terms of the PPA result from a win-win negotiation;
- the project tariff has an adverse influence on the average tariff of the power system; and
- all calculations were correctly made.

STEP X: Decision of EWURA in relation to PPA

After conclusion of the evaluation process, EWURA may grant approval. The decision of EWURA shall be made within forty-five (45) days for an unsolicited proposal.

EWURA shall, before allowing the costs of the PPA into a tariff, ensure that:

- the date on which tariffs are changed to reflect the cost of power purchase aligns with the date that the Purchasing Licensee starts to pay for power; and
- the change in tariffs accurately reflects the costs of power purchase.

EWURA's approval of a PPA may allow a specified degree of flexibility for parties to agree on the changes to the agreement, provided that, EWURA is satisfied the importance of its decision shall not be undermined by flexibility or any permitted change.

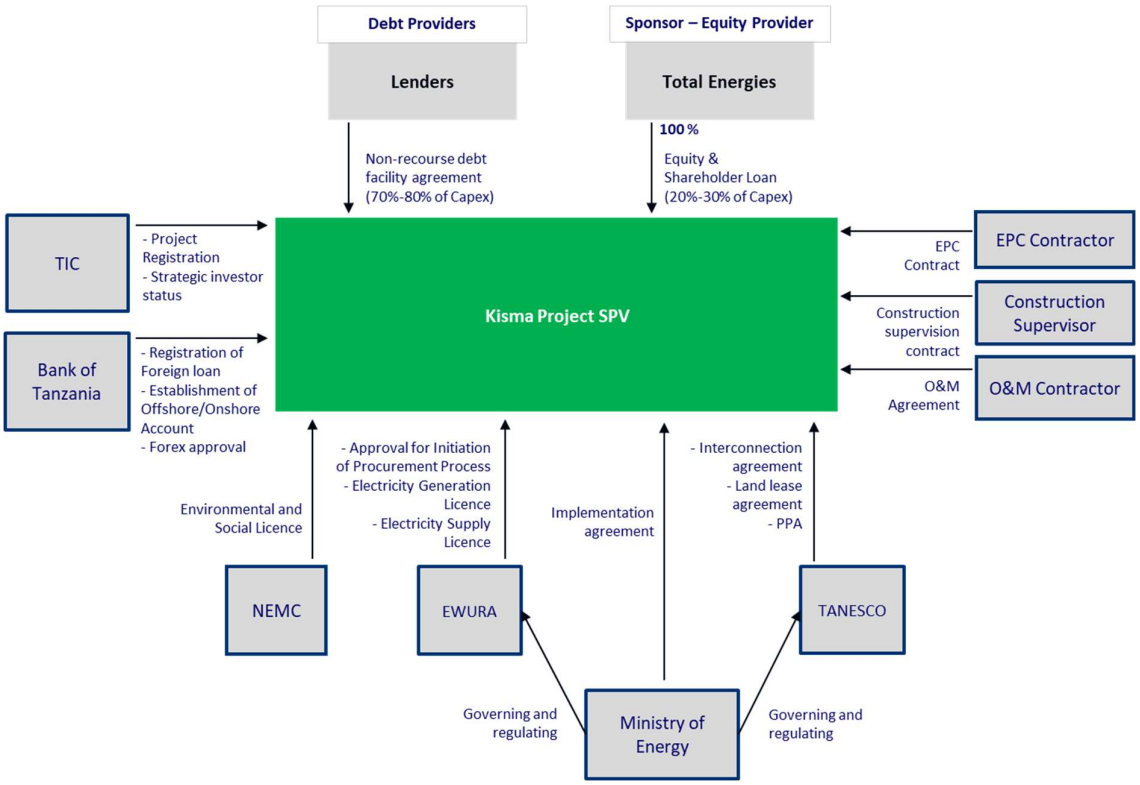
Where the parties to the PPA require flexibility to change terms after the decision by EWURA is made, the desired level of flexibility shall be detailed in the application and sent to EWURA with reasons supporting the need for flexibility.

EWURA, may consider the request for additional flexibility, within five (5) working days and shall notify TANESCO of the level of flexibility that is acceptable to EWURA.

Summary of the Project development steps:

- Kisima Solar PV project SPV to be created
- Obtain a provisional license from EWURA
- Reach financial close with all lenders
- Execute PPA, direct agreement, Implementation Agreement, transmission or distribution agreement, connection direct agreement
- Execute contracts or sub-contracts necessary for engineering, procurement and construction of the project
- Execute contracts or sub-contracts necessary for operation and maintenance of the project
- Complete physical construction of the power project and interconnection facilities
- Commission of the power project
- Commence commercial operations and successfully exporting electricity to TANESCO

7.3.3 Main counterparts and contribution to the project



SECTION 8. Summary of project description

8.1 Why solar photovoltaic

The Solar photovoltaic (PV) technology converts the sun's energy into electricity using a series of solar panels, inverters, and transformers to connect to the electricity grid.

Such system comprises of, on the one hand, arrays of photovoltaic modules and combiner boxes producing direct current and on the other hand, converters, circuit-breakers, control and monitoring devices altogether producing the alternative current part. Multiple cells make up a solar panel, and multiple panels (modules) can be wired together to form a solar array. The more panels can be deployed, the more generated energy can be expected.

The modules, mounted on the structures rammed into the ground, transform sun light (direct irradiation and diffuse light) into direct current, which is transformed into alternative current by the inverters. Power is stepped up by the transformer to match the tension at the connection point.

Compared to other power generating technologies, solar PV shows the advantages of being quick to deploy, with low risks in the technical execution due to the relative simplicity of solar electric systems. During the operation phase, solar systems require limited maintenance due to the fact that this is a static installation: certain minor equipment can be changed on a regular basis, inverters need to be replaced every 5-10 years and panels usually have an economic life of 30 years, time at which repowering might be needed. In addition, no raw material or fuel is required for the production of solar electricity. In light of these features, typically, the business model of a solar PV plant is based on high upfront investment costs and low operation expenditures.

In locations with a high direct irradiation, single- or dual-axis tracking systems can be used to increase the average total annual irradiation. Tracking systems follow the sun as it moves across the sky. These are generally the only moving parts employed in a solar PV power plant. Depending on the site and precise characteristics of the solar irradiation, trackers may increase the annual energy yield by up to 20-30 percent for single-axis. Trackers also produce a smoother power output plateau. This helps meet peak demand in the afternoon, which is common in hot climates due to the use of air conditioning units. For the purpose of the Project, single tracking systems (also called trackers) are considered.

8.2 Project design

Although the equipment models and manufacturers listed in this document are subject to possible changes, the Sponsors will work only with tier-one Engineering Procurement and Construction companies (“EPC”) who themselves will work only with tier-one equipment providers.

The Project Developer is in no-way bound with an EPC company at this stage, and will select the most cost-competitive, efficient and reliable company through a competitive tender process prior to construction, as expected by Lenders too.

The plant design and key performance indicators are provided in the table below.

It is based on targeted equipment models and manufacturers. It is indicative and may change subject to optimization, availability and price of equipment at the time of order.

PLANT FEATURES	
Power capacity (DC/AC)	115 MWp / 100 MWac, DC/AC ratio: 1.15
Plant storage capacity	NA
Interconnection	Grid code known: Y Voltage level: 220 kV Interconnection type: *LILO – 0,5km* 100% grid injection

TECHNOLOGIES	
Modules	Technology: *Bifacial, dual glass,/ n-type* *supplier : Jinko/JA or similar* Peak power: 620 Wp Efficiency: 23%
Structure	Single Axis Tracker SAT-1V78
Inverter	String -SG350HX number of inverters : 329
Transformer	2x50% Installed Main Transformer plus 3rd un-installed spare

YIELD ASSUMPTIONS	
Global Horizontal Irradiation	2354 kWh/m²/y (Solargis)
Gross yield P50 @ 100% availability	2643 MWh/MWp/yr (year 1)
PV Plant unavailability	*Due to maintenance/plant outages* 0,9%
Grid unavailability/curtailment	0,5%
Net yield P50 inc. grid unavailability	2589,7 MWh/MWp/year
Expected gap P50/P90	7,3%
System yearly degradation	*0,35 %*

The project is expected to produce 298 GWh the first year (based on a P50 estimate). The performance of a PV module will gradually decrease over time due to a process known as degradation. The rate of degradation of panels is typically estimated at 0.5% per year. This rate can vary depending on environmental conditions and the specific technology employed in the module.

8.3 Indicative Layout

An indicative layout prepared by the Project Developer is presented below for indicative purposes and is subject to adjustment by the future EPC contractor.

Kisima Solar PV Project will occupy the site in the south with a surface of ~220 ha. The remaining area will be available for potential project extension.

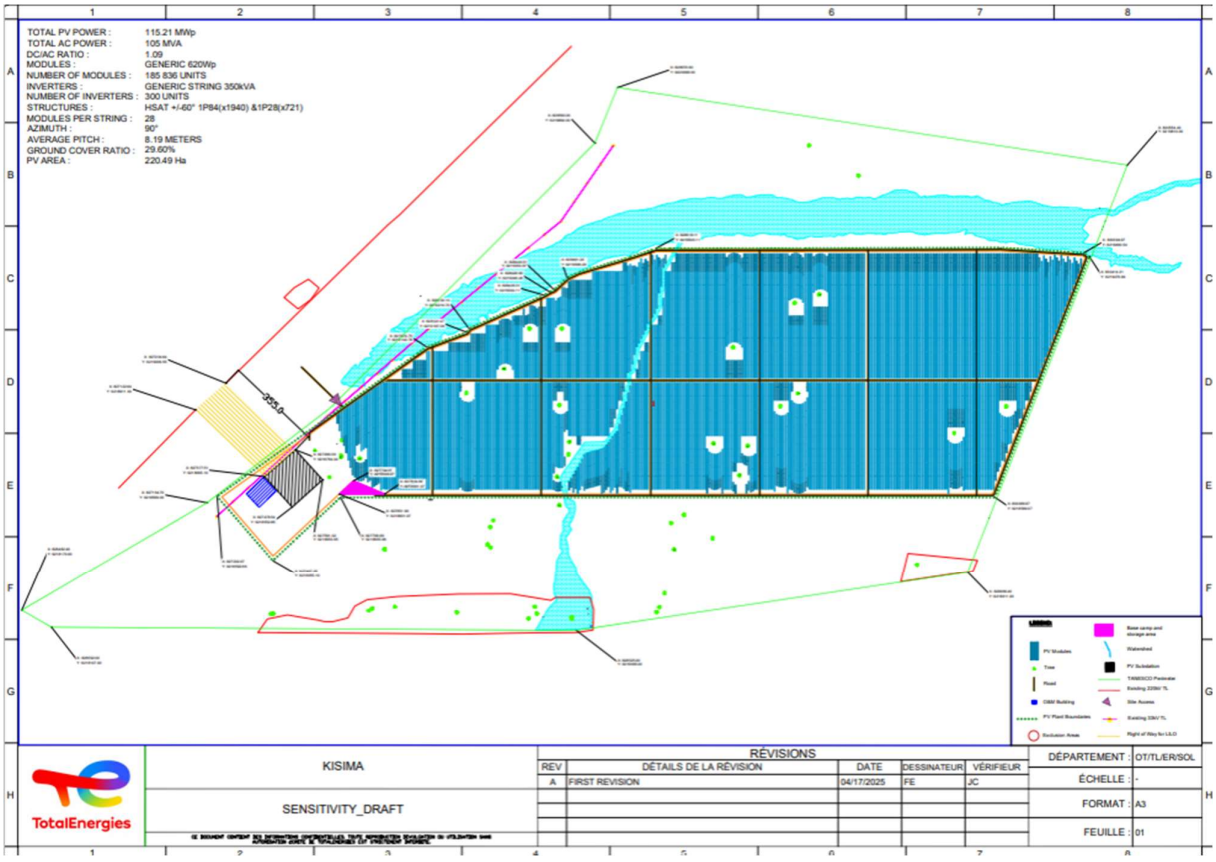


Figure 8-15: Indicative Kisima Solar PV project layout

The PV Project will consist of 100 MW /115 MWp PV plant capacity, deployed on horizontal single axis trackers.

Electricity power produced by the photovoltaic power plant will be injected into Tanzania electricity transmission grid. The PV plant will be connected to the grid in Loop-in Loop out (LILO) to the existing 220 kV Dodoma-Mtera overhead line. The point of connection (POC) is approximately 0.5 km away

from the PV Delivery station to be built on the site. The project includes the installation of about 0.5 km overhead transport line.

The layout of the project has been updated several times, considering various site parameters from topography study, hydrology study and environmental study. Indeed, those studies revealed exclusions zones to consider due to flooding risks and presence of endangered species, like trees to be kept because of their high values to biodiversity. Distribution of PV tables was made in a way to respect those constraints while maximizing the yield and optimizing the LCOE.

8.4 Description of the Project Components

The Solar photovoltaic (PV) technology converts the sun's energy into electricity using a series of solar panels, inverters, and transformers to connect to the electricity grid.

PV cell technologies are broadly categorised as either crystalline or thin film crystalline silicon (c-Si) cells provide high efficiency modules. They are sub-divided into mono-crystalline silicon (mono-c-Si) or multi-crystalline silicon (multi-c-Si). Mono-c-Si cells are generally the most efficient but are also more costly than multi-c-Si. Thin-film cells provide a cheaper alternative but are less efficient. There are three main types of thin-film cells: Cadmium Telluride (CdTe), Copper Indium (Gallium) Di-Selenide (CIGS/CIS), and Amorphous Silicon (a-Si).

The performance of a PV module will gradually decrease over time due to a process known as degradation. The rate of degradation of panels is typically estimated at 0.5% per year. This rate can vary depending on environmental conditions and the specific technology employed in the module.

Modules are either mounted on fixed-angle frames or on sun tracking frames. Fixed frames are simpler to install, cheaper and require less maintenance. However, tracking systems can increase yield by up to 20 %. Tracking, particularly for areas with a high direct/diffuse irradiation ratio also enables a smoother power output. Tracking frames are proposed for the project.

Inverters convert direct current (DC) electricity generated by the PV modules into AC electricity, conforming to the local grid requirements. They are arranged either in string or central configurations. Central configuration inverters are more suitable for multi-MW plants. String inverters enable individual string Maximum Power Point Tracking (MPPT) and require less specialised maintenance skills. String configurations offer more design flexibility.

The mains project components are:

- Solar PV modules: These convert solar radiation directly into electricity through the photovoltaic effect in a silent and clean process that requires no moving parts. The PV effect is a semiconductor effect whereby solar radiation falling onto the semiconductor PV cells generates electron movement. The output from a solar PV cell is DC electricity. A PV power

plant contains many cells connected in modules and many modules connected together in strings to produce the required Direct Current (DC) power output.

At this stage (preliminary design used as a BASE case for the RFP-EPC), bifacial modules (Tiger Neo N-type 66HL4M-BDV) from Jinko Solar, one of the industry leaders. The module efficiency is close to 23% and they have one of the best bifaciality factor (80%), meaning that the rear side of the panel can generate as much as 80% electricity compared to the front side. That module has a 30-year power warranty and shall degrade 0.5% annually. If there is any change of module reference at a later stage, it will be for a product with similar or better parameters in order to maintain the LCOE of the project. Total number of modules would be 186,368 (spares not included).

- Inverters: These are required to convert the DC electricity to alternating current (AC) for connection to the utility grid. Many modules in series strings and parallel strings are connected to the inverters. The primary function of a solar inverter is to convert the direct current (DC) produced by the PV modules into an alternating current (AC), which is suitable for use by the new substation. There are two broad classes of inverters, central inverters, and string inverters.

  At this stage (preliminary design used as a BASE case for the RFP-EPC), approximately 285 strings inverters (Sungrow SG350HX) are considered. Each inverter has a nominal capacity of 350KW and an efficiency of 99%. If there is any change of inverter reference at a later stage, it will be for a product with similar or better parameters in order to maintain the LCOE of the project. Each inverter has approximate dimensions of 1,148 mm in width, 779 mm in height, and 371 mm in depth, and weights approximately 106 kg.

- Module mounting systems (MMS): These allow PV modules to be securely attached to the ground at a fixed tilt angle, or on sun-tracking frames. PV modules will be mounted on a 1-axis horizontal tracker, in a 1 portrait configuration.

- Trackers are oriented in a North-South direction to optimize energy capture throughout the day. Indeed, PV panels can rotate from East to West and therefore are exposed longer to direct sunlight, increasing the energy yield by 20% to 30%, approximately, compare to fixed-tilt systems. Trackers will be motorized and responding to an astronomic tracking algorithm. The tracking configuration usually enables between 20% and 30% of extra production compared to a fixed-tilt system. Estimated foundation depths for the solar PV module mounting structure are estimated to be 1.5 m to 4.0 m depending on subsurface conditions and loads.

- Pitch (row-to-row spacing) will be approximately 8m, which corresponds to a GCR (ground coverage ratio) of nearly 30%. This value is a good balance between panel density and shading mitigation and has been optimized taking into account local weather conditions, topography, bifaciality of the system (the bigger the pitch, the more ground-reflected light that can be absorbed by the rear side of the PV panel) and economical constraints.

- Step-up transformers: The output from the inverters generally requires a further step-up in voltage to reach the AC grid voltage level. The step-up transformer takes the output from the inverters to the required grid depending on the grid connection point and country standards. There will be 2 types of step-up transformers:
    - 400V / 33kV -- the exact number will be determined during the detailed engineering phase, by the EPC
    - 33kV / 220 kV — 2 transformers will be used, each one dealing with 50% energy flow, in order to ensure redundancy. Additionally, a third transformer (spare) might be deployed on site.

- Grid connection interface: This is where the electricity is exported into the grid network. Specific study was conducted by Artelia to design the interconnection and assess the impact of the plant on the grid. Connection of the PV plant to the nearby existing 220kV line Mtera-Dodoma will be done via a Loop-In Loop-Out (LILO) connection. The length of the evacuation line shall be around 0.5 km. The substation will also have the required grid interface switchgear such as circuit breakers (CBs) and disconnects for protection and isolation of the PV power plant, as well as metering equipment.

Figure 8-26: Example of bifacial modules

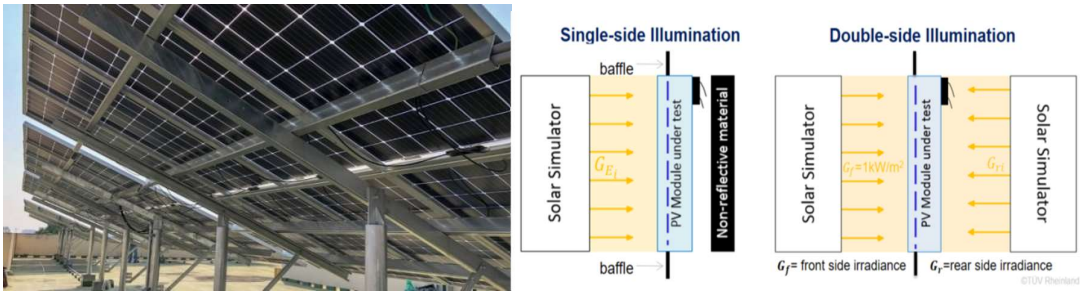
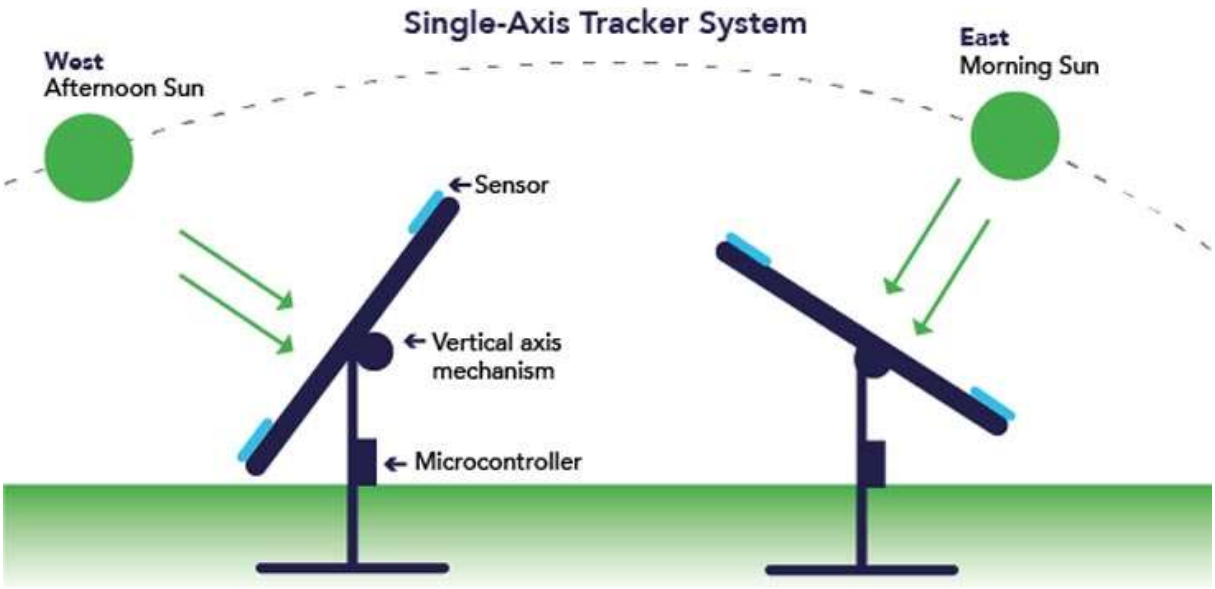


Figure 8-37: Example of single axis tracker

Figure 8-~~4~~8: Single axis tracker principles



8.5 Local Employment

8.5.1 Local content requirements

To encourage local content, in the Request for Proposal, EPCs were asked the following:

- The CONTRACTOR shall ensure that a qualified Tanzanian citizen is given priority in employment of personnel (management, supervisory and otherwise) for the construction, installation, operation, maintenance and management of the project to the maximum extent reasonable, taking into consideration availability and the required skills.
- The CONTRACTOR shall use reasonable endeavours to employ local labour in both skilled and unskilled capacities and shall ensure that they undergo continuous training.
- The CONTRACTOR shall give preference to goods and services provided, manufactured or locally available in Tanzania to the extent reasonable commercially and technically justifiable.
- The CONTRACTOR shall include employee training programs as required in the normal conduct of its business, which training programs shall from time to time include training in each of the skills used in the planning, design, construction, operation and maintenance of the Project and training in management for those employees qualified for management training.
- The CONTRACTOR shall train persons at management and supervisory level, at a minimum, up to seventy percent (70%) of qualified local persons in the management and operation of the Plant, and up to seventy percent (70%) of qualified local persons in the maintenance of the Plant.

8.5.2 Construction phase

The number of local people that are to be employed during construction is unknown yet (it will depend on the EPC that will be selected and the end of the RFP) but shall include low-skilled personnel who will all receive induction training before starting work on the project. This includes basic training on HSE, labor management and, where required for specific job profiles, vocational training.

Based on similar projects, the assumption used is that the project will employ 200 to 300 workers during the construction phase.

The construction workforce shall comprise of four categories of workers:

(1) Unskilled people (100% local / Tanzanian people based on other projects, will have to be reviewed with final EPC to be selected) ;

(2) Skilled local people and Tanzanian nationals (or others who have the legal right to work in Tanzania) who are skilled (local and nationals should represent 60% of the skilled people based on other projects, this figure will have to be confirmed with the EPC); and

(3) Expatriates.

The total number of the local workforce is expected to increase as site preparation activities commence. After the peak level has been reached, the local workforce will gradually be reduced leading up to the start of operations.

The individuals employed during the construction stage, and their household members, will benefit from increased income that is likely to increase their overall standard of living, access to healthcare and educational resources, and reduce their socio-economic vulnerability. The provision of job opportunities and training, in particular for youth, has repeatedly been mentioned during stakeholder engagement activities and is a key expectation arising from the project.

The project presents an opportunity for young people to increase their skills through vocational training that will be of use to them after their involvement in this project is completed. Individuals who receive such vocational training may be able to seek alternative work within the construction sector in the future, having benefited from their involvement in the project.

8.5.2.1 Construction Employment Plan

Objective

The objectives of the Construction Employment Plan are:

- To conduct a fair and transparent process of recruiting local people for temporary employment positions during construction;
- To achieve specific targets for women to comprise a substantial component of the skilled and low-skilled workforce;
- To ensure workers are informed of their legal rights and temporary duration of employment;
- To maintain the worker/manager relationship during employment to avoid disputes;
- To ensure the workplace is suitable for the presence of women who shall work alongside their male counterparts;
- To provide access to occupational health and safety services during employment;
- To use the opportunity of the project to provide workers with vocational, certified training that is likely to help them during their future life after their involvement in the project is completed; and
- To ensure there is a grievance mechanism available to workers to handle any complaints arising.

Responsibility

The Construction Employment Plan shall be implemented by the EPC contractor. TotalEnergies will verify the correct implementation of this Plan through monitoring activities.

8.5.3 Operation phase

The transition from construction to operation of the project will entail a change in the skills required. Consequently, it will be necessary to develop the skills of the local population during construction, so that the right people are able to take on long-term positions during operation.

Around 90% of the workers would be local / Tanzanian.

Employed people and their household members will benefit from an increase in income likely to improve their overall quality of life and their access to healthcare, education and other types of resources over a longer period. The household should also benefit from greater resilience to external income supply shocks that could result from a sudden change in health status or an external factor such as conflict or food price inflation.

8.5.3.1 Operational Employment Plan

Objective

The objectives of the Operational Employment Plan are:

- To achieve specific targets for women to comprise a substantial component of the skilled and low-skilled workforce;
- To ensure the workplace is suitable for the presence of women who shall work alongside their male counterparts;
- To provide access to occupational health and safety services during employment;
- To use the opportunity of the project to provide workers with vocational, certified training that is likely to help them during their future life after their involvement in the project is completed; and
- To ensure there is a grievance mechanism available to workers to handle any complaints arising.

Responsibility

The Operational Employment Plan shall be implemented by the O&M contractor and will be monitored by TotalEnergies.

SECTION 9. Project Investment costing

9.1 CAPEX

Based on the discussion with EPC contractors, financial institutions and its large expertise of developing solar PV projects across the world and Africa in particular, the Project Developer estimates the total cost (excluding VAT and excluding financing costs) for the construction of the 115 MW_P / 100 MW_{AC} PV Plant to be as indicated in the following table:

	Design - 115 MWp / 100 MWac
TOTAL DEVEX [USD]	**k$ 3 840**
Module supply	k$ 14 030
Module transportation	K$ 1 691
BOS equipment supply	k$ 19 996
BOS equipment transportation	K$ 1 715
Construction, Installation and Commissioning	k$ 13 427
Plant EPC Engineering Management Supervision	k$ 6 617
Interconnection Supply & Installation	k$ 12 561
Company Project Technical Costs - POST NTP	k$ 3 364
Insurance during construction	K$ 353
Land lease during construction	K$ 187
Company Contingencies	k$ 3 669
TOTAL CAPEX excl. DEVEX kUSD	**k$ 77 049**
TOTAL DEVEX + CAPEX kUSD	**k$ 81 450**
TOTAL DEVEX + CAPEX USD/Wp	**0.71**

In order to enable TIC officers to better assess the project, a monthly summary of Capital expenditures is available below. The duration of the construction period as well as the breakdown of the CAPEX

during the construction period will have to be adjusted to EPC final selection. Total Capex including financial costs range at c. $92m, exceeding the Strategic investor investment threshold (185% of threshold). In Annex I, the Capex Curve is assumed to be flat and linear during project construction, since the detailed construction schedule still has to be defined.

In addition to the above, Working Capital is expected to be of c. $4m of drawdown when project will enter operation.

Month	Unit	Plant - modules	Plant - Balance of System (BOS)	Plant - import duties + transport to site	Plant - interconnection costs	Construction, Installation and Commissioning	Plant EPC Engineering Management Supervision	Company Project Technical Costs - POST NTP	Insurance	Land rental during construction	Contingencies - spent	Development costs	Transformer Early Purchase order	Financing - upfront fee	Financing - interests during construction	Financing - commitment fees	Financing - DSRA - initial funding	Total
févr-26	$'000	825	1 176	200	706	790	389	198	21	11	216	3 840	561	1 292	28	70	-	10 323
mars-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	75	71	-	4 679
avr-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	100	65	-	4 697
mai-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	131	63	-	4 726
juin-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	154	56	-	4 743
juil-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	188	54	-	4 774
août-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	216	50	-	4 798
sept-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	237	44	-	4 813
oct-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	273	41	-	4 847
nov-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	292	36	-	4 860

déc-26	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	331	33	-	4 896
janv-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	360	28	-	4 921
févr-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	352	22	-	4 906
mars-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	419	19	-	4 971
avr-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	434	15	-	4 981
mai-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	478	11	-	5 021
juin-27	$'000	825	1 176	200	706	790	389	198	21	11	216	-	-	-	504	4	4 256	9 297
juil-27	$'000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	$'000	14 030	19 996	3 405	12 000	13 427	6 617	3 364	353	187	3 669	3 840	561	1 292	4 573	681	4 256	92 252

9.2 OPEX

Based on the discussion with OM contractors, financial institutions and its large expertise of developing solar PV projects across the world and Africa in particular, the Project Developer estimates the total cost (excluding VAT) for the operation of the 115 MW_P / 100 MW_{AC} PV Plant to be as indicated in the following table:

	Design - 115 MWp / 100 MWac
O&M price per year	k$1 319
Asset Management	K$ 704
Land lease	K$199
Insurances	k$295
SPV admin	k$10
Municipality tax to Mpwapwa district	3% of revenues (k$ 44 on Year 1)
TOTAL OPEX [USD/year]	**k$2 571**
TOTAL OPEX [k$/MWp/year]	**$22**

All those costs will have to be reviewed / adjusted.

In order to refine the costs of the project, TotalEnergies has launched an O&M Request for proposal.

SECTION 10. Project financing

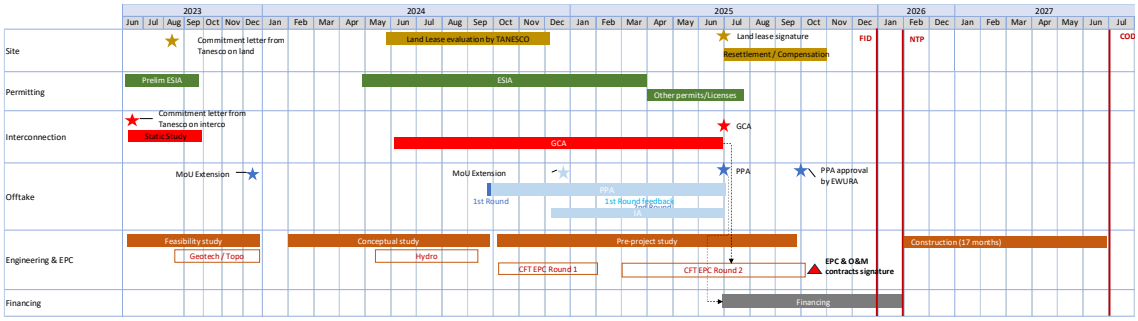
The project is expected to be primarily financed through a non-recourse project finance scheme, for which commercial banks and DFIs have been approached. According to first market soundings in the country, the maximum share of debt in the initial project funding would range between 60% and 75% of the project's Capex (the maximum gearing). The breakdown between offshore and onshore loans is unknown at the time of the TIC application, since the lenders have not been selected yet. Naturally, flexibility and competitiveness will be key in assessing potential lenders' proposals.

The rest of the project's Capex will be funded through equity (hard equity and/or shareholder loans), in proportions that still need to be defined and approved internally.

Funding type	Share in project's funding
Senior debt - local and/or foreign	[60-75]%
Shareholder loan + Hard equity	[25-40]%

SECTION 11. Project implementation schedule

Project is expected to reach Final Investment Decision (FID) in Jan-2026, Notice to Proceed (NTP) in Feb-2026 and to start Commercial Operation in July 2027.



SECTION 12. Project financial projections

!Important disclaimer! You will find thereafter the required financial statements over the 2025-2031 period. They include the project's income statement (eg P&L), a cash flow statement, a balance sheet and a loan repayment schedule. Since the project is still in development phase, the figures below rely on uncertain hypotheses, which will have to be refined as the project progresses. In particular, some hypotheses are derived from usual project finance schemes (shareholder proportion vs hard equity, senior debt interest rate, Capex and Opex projections) and have no contractual or definitive basis. We kindly request the reader to look after the following numbers with flexibility and care. The following financial statements include all the exemptions and extra-exemptions requested under the Strategic Investor status application.

12.1 Assumptions

12.1.1 Macroeconomic assumptions

Investment are in USD (debt and equity), revenues are in TZS denominated in USD. USD inflation rate is supposed to be 2% after 2027 (which corresponds to COD), and 3% before.

12.1.2 Revenues input

A PPA negotiation process has been started with TANESCO, with the ambition to secure a long-term commitment on sustainable and bankable terms and conditions.

In the financial model, we suppose that the agreed PPA price is 48$/MWh, fully indexed on US CPI after PPA signature (assumed on June 1st, 2025, first escalation occurring on June 1st, 2026). This PPA would cover the entire project life, ie 25 years of operation. Operations and thus power delivery are assumed to start on July 1st, 2027.

12.1.3 Taxes assumptions and application for fiscal exemptions

Exemption of custom duties: Under the East African Customs Management Act, custom duties exemption in Tanzania is limited to solar panels and related accessories. The project company is asking for a complete exemption of custom duties for all of the project's goods imported for the construction of the project (including the grid connection) and for its maintenance during operation.

Exemption of VAT during construction: In accordance with the provisions concerning customs duties, the law provides for VAT exemptions for solar modules, but does not encompass all project items. After spending, the Project will fill in a refund application. For the sake of simplicity, we apply to a complete exemption on project spending during construction on goods and services, including technical and financial services.

Withholding tax exemption on senior debt interest*:* First market soundings indicate a [9-12]% all-in rate for a senior debt tranche. In addition to that, the Income Tax Act (ITA) suggests that normal investors would be subject to a 10% withholding tax rate on loan interest, whether these loans are provided by local or by foreign banks/financial institutions. In line with section 82 2 (e) of the ITA specifically designed for Strategic Investors, the project shall benefit from a total exemption from this withholding tax. This decision will mechanically help reduce the all-in rate offered by banks and will contribute to the financial sustainability of the project.

In Tanzania, there is a Debt-equity ratio of 7-3, and any debt exceeding this ratio would limit interest deductibility. The debt provided by non-resident financing institutions whose interests are withheld in United Republic of Tanzania are excluded from the 7-3 ratio calculation and thus are not subject to deductibility limitation. In the preset case, the total exemption from withholding tax on senior debt interest shall not impact the exclusion from the 7-3 ratio calculation.

Withholding tax exemption on financial services and fees associated with senior debt: In line with the previous request, the funding of the project through debt will imply the payment of fees to banks/financial institutions (upfront fees, arrangement fees, commitment fees, agency fees, etc.). In line with the spirit of the law regarding Strategic Investors, such fees shall logically benefit from a withholding tax exemption.

Withholding tax exemption on services fees paid toy TotalEnergies Renewables (France) and/or its affiliates: prior to the construction phase, the project has gone through a development phase, with costs being 100% borne by TotalEnergies Renewables (France) or any of its affiliates in the interest of the project. Once the project enters into construction phase, these costs will be reinvoiced to the project company so that the latter will be able to capitalize and levy debt on these development costs, ie to debt-size the development costs in the interest of the project. During the operation phase, TotalEnergies Renewables (France) also intends to provide services to the SPV such as Operation & Maintenance or Asset Management.

In this context, TotalEnergies Renewables (France) and its affiliates request to benefit from a withholding tax exemption on services fees charged to the project company, including engineering services fees, consulting services fees and other service fees during construction and operation to match acceptable returns.

Withholding tax exemption on shareholder loan interest: Shareholder loans being a quite usual method to fund development and construction for infrastructure projects, it is expected that some shareholder loans lines will be put in place for Kisima project. Since no double-tax treaty exists between France and Tanzania, the withholding tax on shareholder loan interest (amounting to 10%) is not recoverable in France against French corporate income tax and is a final cost for the project's shareholders. We consequently apply for a complete exemption from shareholder loan interest withholding tax.

Withholding tax exemption on dividends: The logic is the same as for the previous request: dividends distributed to shareholders are subject to a withholding tax at a 10%-rate, which reduces project's profitability and represents a final loss for the SPV's shareholders. We therefore request a full withholding tax exemption on dividends.

Class 2 depreciation: The project will involve the construction and the operation of a solar power plant. In the ITA. In order to reach depreciation levels similar to what is observed in similar countries, it is important for the project to be ranged in depreciation Class 2 (and qualified as "specialised public utility plant"), resulting in a 25% single-declining balance depreciation rate.

Please note that the 70% restriction of the deductibility of the losses carried forward will limit the impact of benefiting from the Class 2 depreciation.

Reduced Corporate Income Tax rate to 15% during 10 years: In order for the project to materialize in sufficiently profitable financial conditions, the project should benefit from a reduced CIT (eg reduced by half compared to the normal 30% CIT rate) during 10 years as from construction start date. The impact of this exemption on collected CIT amounts is detailed thereafter (Material 5).

Exemption from the thin capitalization rule: a 7 to 3 maximum ratio between related-parties loans and injected hard equity is imposed by the ITA to ensure the full deductibility of related-parties loan interests. In order to ease the internal constraints of the shareholders, it is requested that the project would not be subject to the thin capitalization ratio.

To summarize where the project wishes to land to guarantee financial sustainability and adequate risk-return metrics, these are the fiscal exemptions sought after by the project:

Requested fiscal incentives
Withholding tax exemption on senior debt interest
Withholding tax exemption on financial services and fees associated with senior debt
Withholding tax exemption on services provided by TotalEnergies Renewables and its affiliates
Withholding tax exemption on shareholder loan interest
Withholding tax exemption on dividends
Exemption of custom duties
Exemption of VAT during construction
Class 2 depreciation
Reduced Corporate Income Tax rate to 15% during 10 years
Exemption from the thin capitalization rule
Abnormal load fee exemption

12.2 Financial projections

12.2.1 Income Statement

P&L	Unit	2025	2026	2027	2028	2029	2030	2031
Production	GWh	0	0	161	297	296	294	293
PPA Revenues	M$	0	0	8	15	15	15	16
Total Revenues	M$	**0**	**0**	**8**	**15**	**15**	**15**	**16**
Total Opex	M$	0	0	-1	-3	-3	-3	-3
EBITDA	M$	**0**	**0**	**7**	**12**	**13**	**13**	**13**
Accounting Depreciation	M$	0	0	-2	-4	-4	-4	-4
EBIT (OI)	M$	**0**	**0**	**5**	**9**	**9**	**9**	**9**
Tax	M$	0	0	0	0	0	0	0
Deferred Tax	M$	0	0	0	0	0	0	0
Net operating income	M$	**0**	**0**	**5**	**9**	**9**	**9**	**9**
Financial charges	M$	0	0	-3	-7	-6	-6	-6
Shareholder loan interests	M$	0	0	-1	-2	-2	-1	-1
Net Income	M$	**0**	**0**	**0**	**0**	**1**	**1**	**2**

12.2.2 Cash Flows

Cash Flow Statement		2025	2026	2027	2028	2029	2030	2031
EBITDA	M$	0,0	0,0	6,7	12,3	12,5	12,7	12,9
CIT	M$	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Change in receivables	M$	0,0	0,0	-4,0	-0,1	-0,1	-0,1	-0,1
Change in payables	M$	0,0	0,0	0,2	0,0	0,0	0,0	0,0
Change in working capi	M$	0,0	0,0	3,8	0,1	0,1	0,1	0,1
Cash-Flow from Operati	M$	0,0	0,0	6,7	12,3	12,5	12,7	12,9
Plant - modules	M$	0,0	-9,1	-5,0	0,0	0,0	0,0	0,0
Plant - Balance of Syste	M$	0,0	-12,9	-7,1	0,0	0,0	0,0	0,0
Plant - transport to site	M$	0,0	-2,2	-1,2	0,0	0,0	0,0	0,0
Plant - interconnection	M$	0,0	-7,8	-4,2	0,0	0,0	0,0	0,0
Construction, Installatio	M$	0,0	-8,7	-4,7	0,0	0,0	0,0	0,0
Plant EPC Engineering	M$	0,0	-4,3	-2,3	0,0	0,0	0,0	0,0
Company Project Techr	M$	0,0	-2,2	-1,2	0,0	0,0	0,0	0,0
Insurance	M$	0,0	-0,2	-0,1	0,0	0,0	0,0	0,0
Land rental during cons	M$	0,0	-0,1	-0,1	0,0	0,0	0,0	0,0
Contingencies - spent	M$	0,0	-2,4	-1,3	0,0	0,0	0,0	0,0
Development costs	M$	0,0	-3,8	0,0	0,0	0,0	0,0	0,0
Transformer - early PO	M$	0,0	-0,6	0,0	0,0	0,0	0,0	0,0
Financing - upfront fee	M$	0,0	-1,3	0,0	0,0	0,0	0,0	0,0
Financing - interests du	M$	0,0	-2,0	-2,5	0,0	0,0	0,0	0,0
Financing - commitment	M$	0,0	-0,6	-0,1	0,0	0,0	0,0	0,0
Financing - DSRA - initi	M$	0,0	0,0	-4,3	0,0	0,0	0,0	0,0
Cash-Flow from Investir	$'000	0,0	-58,2	-34,1	0,0	0,0	0,0	0,0
Drawdowns on Equity	M$	0,0	5,2	3,1	0,0	0,0	0,0	0,0
Drawdowns on SHL	M$	0,0	12,2	7,2	0,0	0,0	0,0	0,0
Drawdowns on Tranche	M$	0,0	40,7	23,9	0,0	0,0	0,0	0,0
Working capital Facility	M$	0,0	0,0	-0,2	-0,2	-0,2	-0,2	-0,2
Tranche 1 interests paic	M$	0,0	0,0	-3,3	-6,4	-6,2	-6,0	-5,7
Tranche 1 Principal Rep	M$	0,0	0,0	-1,0	-1,6	-1,9	-2,2	-2,6
Increase in DSRA	M$	0,0	0,0	0,0	-0,8	-0,8	-0,9	-0,9
Decrease in DSRA	M$	0,0	0,0	0,0	0,7	0,8	0,8	0,8
SHL - interest due	M$	0,0	0,0	-1,0	-1,9	-1,7	-1,4	-1,1
SHL - principal repayme	M$	0,0	0,0	-1,1	-2,1	-2,5	-2,8	-3,1
Dividends	M$	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Cash-Flow from Financi	M$	0,0	58,2	27,5	-12,3	-12,5	-12,7	-12,9
Cash-Flow Variation	M$	0,0	0,0	0,1	0,0	0,0	0,0	0,0
Cash Balances BoP	M$	0,0	0,0	0,0	0,1	0,1	0,1	0,1
Change in cash balance	M$	0,0	0,0	0,1	0,0	0,0	0,0	0,0
Cash Balances EoP	M$	0,0	0,0	0,1	0,1	0,1	0,1	0,1

12.2.3 Balance sheet

		2025	2026	2027	2028	2029	2030	2031
Current Assets								
DSRA	M$	0,0	0,0	4,3	4,4	4,5	4,5	4,6
Cash	M$	0,0	0,0	0,1	0,1	0,1	0,1	0,1
Receivables	M$	0,0	0,0	4,0	4,1	4,1	4,2	4,3
Total Current Assets	M$	0,0	0,0	8,4	8,6	8,7	8,8	9,0
Non Current Assets								
Gross Fixed Assets	M$	0,0	58,8	87,6	84,1	80,5	76,9	73,3
Total Non Current Assets	M$	0,0	58,8	87,6	84,1	80,5	76,9	73,3
	M$							
Total Assets	**M$**	**0,0**	**58,8**	**96,0**	**92,6**	**89,2**	**85,8**	**82,3**
Current Liabilities								
Payables	M$	0,0	0,0	0,2	0,2	0,2	0,2	0,2
Total Current Liabilities	M$	0,0	0,0	0,2	0,2	0,2	0,2	0,2
Non Current Liabilities								
Tranche 1	M$	0,0	40,7	63,6	62,0	60,0	57,8	55,2
Working capital Facility	M$	0,0	0,0	3,8	3,9	3,9	4,0	4,0
Accrued costs on Working capita	M$	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Accrued Interests Tranche 1	M$	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Deffered Tax Liabilities	M$	0,0	0,0	0,1	0,1	0,2	0,5	0,8
Total Non Current Liabilities	M$	0,0	40,7	67,4	65,9	64,2	62,2	60,0
Equity								
Share Capital	M$	0,0	5,2	8,3	8,3	8,3	8,3	8,3
Shareholder Loan	M$	0,0	12,8	19,8	17,7	15,2	12,4	9,3
Shareholder Loan Accrued Intere	M$	0,0	0,0	0,3	0,5	1,3	2,6	4,5
Retained Earning	M$	0,0	0,0	0,3	0,5	1,3	2,6	4,5
Total Equity	M$	0,0	18,1	28,4	26,5	24,8	23,3	22,0
Total Equity&Liabilities	**M$**	**0,0**	**58,8**	**96,0**	**92,6**	**89,2**	**85,8**	**82,3**

12.2.4 Loan repayment schedule

Financing type	Unit	2025	2026	2027	2028	2029	2030	2031
Senior Debt	M $	-	40,7	22,9	-1,6	-1,9	-2,2	-2,6

SECTION 13. Conclusion

TotalEnergies is asking for Kisima Solar PV project to be granted the Strategic Investor Status, and to benefit from associated fiscal and non-fiscal incentives as well as extra incentives, as the project is in line to Tanzania's national energy goals, improving grid reliability, and promoting sustainable development.

Specifically, the project seeks to:

- Improving energy generation needs, advance national electrification
- Provide cost-effective and reliable power generation
- Diversify energy mix, Decrease dependency on gas and hydro
- Contribute to Climate Change Mitigation by developing Clean energy / Carbon emission reduction
- Stimulate Local Economic Development
- Catalyze Private Sector Investment

EXHIBIT 1. Board resolution

EXHIBIT 2. Evidence of land

EXHIBIT 3. TotalEnergies Marketing Tanzania: Copy of Company Certificate of Incorporation and TIN certificates

EXHIBIT 4. TotalEnergies Marketing Tanzania: Memorandum and Articles of Association

EXHIBIT 5. TotalEnergies Renewables: Certificate of Incorporation and TIN certificates

EXHIBIT 6. TotalEnergies Renewables: Memorandum and Articles of Association

EXHIBIT 7. Evidence of funds for the project

EXHIBIT 8. Evidence of payment for the TIC application