BUSINESS ESWATINI

Eswatini:
Solar PV-Embedded Generation Market

Developer Guide

BE INSPIRED

IN COLLABORATION WITH

ESEPARC
ESWATINI ECONOMIC POLICY ANALYSIS AND RESEARCH CENTRE

EEC
Eswatini Electricity Company

ESWATINI ENERGY REGULATORY AUTHORITY
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A NOTE TO READER

This Developer Guide is a “reference document” to inform early market exploration, specifically aimed at new entrants to the Small-Scale Embedded Generation (SSEG) market in Eswatini. It is a relatively long document which summarises a wealth of details. It should be read to obtain specific facts or information. The document is available on the website of Business Eswatini at **https://business-eswatini.co.sz/**

ABOUT BUSINESS ESWATINI

Business Eswatini is a voluntary, non-profit member-based organization representing employers and businesses in all sectors of the Eswatini economy to promote trade and harmonious labour relations. Business Eswatini has forged working relations with the Government of Eswatini and other key stakeholders within and beyond the Kingdom. Through these collaborations, the organisation has been successful in influencing economic policy and continues to play a key role to continue doing so into the future.

Over and above working with local stakeholders, Business Eswatini has also played a pivotal role in connecting local industry issues with strategic partners beyond the borders. Joining and fully participating in the activities of Business Eswatini under the prevalent tough economic conditions is not just another option but it has become an obligation for the business community to maintain control of its future which, if left to fate, would disintegrate.

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FOREWORD

“Embedded solar generation empowers energy users with greater control over their electricity needs, allowing businesses to lower operational costs, gain energy independence, and contribute to broader sustainability goals.”

Mr E.Nathi Dlamini
Chief Executive Officer
Business Eswatini

On behalf of Business Eswatini, it is a privilege to introduce this insightful market report on embedded solar generation. As the world transitions toward cleaner, more sustainable energy solutions, the role of solar power is at the forefront of innovation, offering exciting new avenues for growth and development. This shift presents significant opportunities for businesses, governments, and communities to embrace renewable energy while addressing global challenges such as climate change, energy security, and economic resilience.

In the context of evolving energy landscapes, embedded solar generation emerges as a key component of future-ready power systems. By integrating solar power generation directly into homes, businesses, and industrial operations, embedded generation empowers energy users with greater control over their electricity needs. By generating power independently, businesses can lower their operational costs, gain energy independence, and contribute to broader sustainability goals. Beyond operational benefits, there are numerous business opportunities in providing services, products, and technologies related to solar energy systems, installation, maintenance, and innovation in energy storage.

This report offers key market insights that can help SMEs and investors identify and navigate the embedded power generation landscape in Eswatini. From understanding regulatory frameworks and market drivers to analysing investment opportunities, the insights contained here will guide businesses in positioning themselves within this growing market.

Business Eswatini is committed to bringing the best information and resources to our partners and fostering innovation and growth in the renewable energy sector. We believe that this report will serve as a valuable resource for businesses, policymakers, and investors looking to navigate the complexities of this dynamic market. We look forward to supporting continued collaboration and investment in embedded solar generation as part of a broader vision for a cleaner, more sustainable future.

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ABBREVIATIONS

Acronym	Description
AMR	Advanced Metering Reading
CBE	Central Bank of Eswatini
CMA	Common Monetary Area
COMESA	Common Market for Eastern and Southern Africa
EDM	Electricidade de Moçambique
EEC	Eswatini Electricity Company
EIPA	Eswatini Investment Promotion Authority
ENPF	Eswatini National Provident Fund
EPC	Engineering, Procurement, Construction
EPTC	Eswatini Post Telecommunication Company
ERS	Eswatini Revenue Services
ESCCOM	Eswatini Communication Commission
ESEPARC	Eswatini Economic Policy Analysis and Research Centre
ESERA	Eswatini Energy Regulatory Authority
ETIP	Eswatini Trade Information Portal
EU	European Union
FDI	Foreign Direct Investment
FSRA	Financial Services Regulatory Authority
GDP	Gross Domestic Product
GNI	Gross National Income
GW	Gigawatts
HDI	Human Development Index
HV	High Voltage
IAF	International Accreditation Forum
ILAC	International Laboratory Accreditation Co-operation
ICT	Information Communication Technology
ICTAUS	Information Communication and Technology Access and Use Survey
LV	Low Voltage
MCIT	Ministry of Commerce, Industry and Trade
MEPD	Ministry of Economic Planning and Development
MNRE	Ministry of Natural Resources and Energy
MV	Medium Voltage
MW	Megawatts
NDP	National Development Plan
NEPIS	National Energy Policy Implementation Strategy

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NGO	Non-Governmental Organisation
NMD	Notified Maximum Demand
PAYE	Pay-As-You-Earn
PPA	Power Purchase Agreement
PSH	Peak Sun Hours
PV	Photovoltaic
PVPS	Southern African Customs Union
REASWA	Renewable Energy Association of Eswatini
SACU	Southern African Development Community
SADC	South African National Accreditation System
SANAS	South African National Accreditation System
SANS	South African National Standards
SAPP	Southern Africa Power Pool
SEZ	Special Economic Zone
SME	Small Medium Enterprises
SSEG	Small-Scale Embedded Generation
SZL	Swaziland Lilangeni
SZNS	Swaziland National Standard
TOU	Time of Use
TVET	Technical and Vocational Education and Training
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
USA	United States of America
USL	Ubombo Sugar Limited
VAT	Value Added Tax
WTO	World Trade Organisation
ZAR	South African Rand

GLOSSARY OF TERMS

Term	Definition
Bi-directional Meter	A meter that separately measures electricity flow in both directions (import and export).
Embedded Generation	Refers to generation and/or bi-directional storage system embedded in the distribution network that operates in parallel with the distribution network supply
Grid-tied	An embedded generation installation that is connected to the distribution electrical network either directly or through a customer's internal wiring.
Inverter	A power device that converts direct current to alternating current at a voltage and frequency which enables the Embedded Generation system installation to be connected to the distribution electrical network.
Low voltage	Voltage levels up to and including 1 kV (1 kV = 1000 Volts).
Small-scale embedded generator	An embedded generator with a generation capacity of less than or equal to 1000 kVA (1 MVA).

EXECUTIVE SUMMARY

The Kingdom of Eswatini (previously known as Swaziland) is a small country in Southern Africa bordered by South Africa and Mozambique with a population of about 1.2 million. Eswatini is classified as a lower-middle-income country facing multiple social and economic inequalities.

Eswatini Electricity Supply Industry

Eswatini's legislative frameworks for the electricity sector – that is, the Electricity Act of 2007, Energy Regulatory Act of 2007, and Electricity Company Act of 2007 – including licensing guidelines, are currently undergoing a review to consider industry developments, especially in the renewable energy space. Eswatini imports approximately 70% to 80% of its electricity from ESKOM, Electricidade de Moçambique (EDM), and the Southern African Power Pool (SAPP) trading platforms.

Local electricity generation is mostly renewable energy. The local generation mix is dominated by biomass (bagasse at sugar mills) with a total of 106.5 MW installed capacity, followed by hydro power with an installed capacity of 63.4 MW, solar PV with an installed capacity of 30.9 MW, and coal with 2.2 MW. The key players in the electricity supply industry are the vertically integrated Eswatini Electricity Company (EEC) and Independent Power Producers (IPPs) (i.e. RESCorp, USL, and USA Distillers).

The National Development Plan (NDP) 2023/24 – 2027/28 highlights the government's commitment to upscale investments in renewable energy technologies for enhanced energy supply, access, security, and creating an enabling environment for private sector investment in the energy sector. The Independent Power Produce Policy of 2016 promotes the use of local renewable energy resources such as biomass and solar energy. A key emerging trend is the growing adoption of embedded power generation, particularly solar photovoltaic (PV) systems, by domestic, commercial, industrial, and agricultural consumers. Eswatini's overall national electrification rate stands at 82%. The government is aiming to achieve 100% electrification by 2030.

For the past three years, electricity purchases from EEC by major or large customers (industrial and agriculture) have been on a downward trend due to a shift to own generation (primarily with solar) as a means of reducing electricity costs. Large electricity consumers have been looking for ways to reduce their electricity bills, including alternative power technologies. This could potentially result in major customers leaving the electricity grid.

Eswatini relies heavily on South Africa for electricity; in recent years, South Africa has experienced one of the worst periods of load shedding.

The load-shedding crisis in South Africa does not always translate into the same situation in Eswatini. The EEC has been able to use its internal generation to mitigate the effects of load shedding, which would otherwise have affected the country.

Enabling Adoption of Embedded Generators

Prior to the EEC developing the embedded generation requirements that specify the conditions and application processes for becoming a grid-connected embedded generator in the EEC electrical network, the Eswatini Energy Regulatory Authority (ESERA) developed the Small-Scale Embedded Generation (SSEG) Framework of 2021. The ESERA and the EEC are currently piloting the SSEG Framework by applying and assessing proposed compliance guidelines on existing SSEG sites to ensure installations are safe, compliant and in line with the country's objectives. The SSEG framework capped the penetration of SSEG into the EEC network at 37 MW, which is 15% of the national maximum demand. The 37 MW was based on the grid network status in 2021 and is expected to be reviewed on a regular basis, as grid studies are conducted to establish the cap, and the network is also reinforced.

The current SSEG penetration is at 21.28 MW. This figure only includes installations above 100 kW each; the penetration of installations less than 100 kW is unknown because they are not required to obtain a license from the regulator. In preparation for the national roll-out of the SSEG Framework, the EEC launched a campaign to encourage solar PV-embedded generators to register their systems with them for approval on or before 31 December 2024. Moreover, ESERA and EEC are conducting a sensitivity analysis on the impact of embedded generation on the EEC business model. In accordance with the SSEG Framework, all distributors will adopt a net-billing approach, as opposed to net-metering, to compensate for the excess energy that is fed into the grid from the embedded generators. In November 2022, the ESERA completed the development of the Wheeling Framework that allows privately generated power to be transmitted across the national grid.

Addressable Market

Eswatini's maximum local electricity demand was recorded to be 245.17 MW in 2020 and is expected to grow to 334 MW by 2035. With the increasing demand for electricity, there is a significant opportunity for the further expansion of solar power in Eswatini, especially in the industrial and agricultural sectors. The total approved capacity from SSEGs increased from 17.27 MW in 2021/22 to 21.28 MW in 2022/23, representing a growth rate of 23.2% in one year. This is a significant growth rate, indicating strong market demand for SSEG solutions. However, with the 37 MW cap on SSEG and 21.28 MW[1] current penetration, addressable market for SSEG is estimated at 15.72 MW, representing 42.5% of the capped capacity still available. If this growth rate continues, the market can reach the 37 MW cap in three to four years. The regulatory cap may eventually limit market growth unless EEC conducts detailed grid network studies and invest it strengthening the network infrastructure.

Financing solar PV-embedded generation remains a significant barrier, with most installers requiring full upfront payments that are often inaccessible customers. While flexible options, such as instalment plans and potential access to grants and commercial loans, are emerging, greater financial support mechanisms are needed to promote widespread embedded generation adoption in Eswatini. Local entrepreneurs and early-stage project developers can access 240+ financing instruments (i.e., grant, debt, and equity) for renewable energy investments via **Funding Database - GET.invest (get-invest.eu).** The database contains funding tickets with sizes ranging from EUR 100,000 to EUR 10 million (approximately SZL 1.9 million to SZL 196 million).

1 This is figure from 2023. SSEG penetration is likely to have increased. When this report was published, EEC and ESERA had not released updated figures.

The integration of digital technologies such as data analytics, and smart meters, presents opportunities to enhance embedded generation efficiency. By leveraging these innovations, Eswatini can overcome existing constraints and establish a robust foundation for sustainable energy development.

Starting a Business in Eswatini

As a first step, any potential investor must register their business or company before investing in the Eswatini economy. Businesses in Eswatini can register as private, public, local, non-profit, or foreign companies. The registrar of companies offers both offline and online business registrations. Company registration takes no more than three (3) days while obtaining a trading licence takes no more than 21 days. Company registration fees range from SZL 625.00 to SZL 1,825.00, depending on nominal capital.

Requirements for Businesses in the Electricity Sector

Businesses that wish to generate, transmit, distribute, supply, or import electricity into or export from Eswatini must acquire relevant licences from the ESERA. According to the ESERA, the entire licensing application process should take up to 120 days. It is an offence to generate, transmit, distribute, or supply electricity without a licence duly issued or granted by the ESERA.

Solar PV-Embedded Generation Requirements

The requirements for embedded generation specify the conditions and application processes for becoming a grid-connected embedded generator in the EEC electrical network. The requirements are intended to manage embedded generators connected to the EEC grid to ensure the safety of EEC staff, the public, and users of the embedded generation system installation; to maintain the power quality of the EEC electricity network; to clarify metering and billing requirements and options; and to ensure that the installed equipment complies with technical standards. All embedded generator systems must be registered and authorised by the EEC before installation to ensure that they are safe and legal.

Any person or entity installing a solar PV-embedded generation system intended for self-consumption, and the system capacity is equal or greater than 100 kW but less than 1 MW, that person or entity is exempted to hold a generation licence but must apply for exemption. Exemptions are issued for a period of two (2) years and renewable thereafter on application and meeting the relevant conditions. Embedded generation systems of less than 100 kW are not required to obtain a generation licence. An embedded generation licence costs SZL 10,000.00, renewable after (2) years.

Incentives to Invest in Eswatini

There are both tax and non-tax incentives for investing in Eswatini. Tax incentives include a 10% reduction in corporate tax for 10 years, accelerated capital allowances, and special economic zone benefits. Amendment of the Income Tax Order, 2023, will bring relief to businesses, one of which is the reduction of corporate tax from 27.5% to 25%, effective 1 July 2024. Non-tax incentives include export credit guarantee schemes and subsidised rental on government factory shells.

Challenges Faced by Solar PV Developers in Eswatini

Solar PV developers in Eswatini face numerous challenges, most of which are related to the regulatory framework. The SSEG Framework currently in place does not allow for the sale of excess power for qualifying installations. There is also a lack of solar PV installer accreditation and limited or minimal solar PV financing.

The ESERA and EEC are currently trying to solve these challenges, including the envisaged introduction of a net-billing approach before the end of the financial year 2024/2025, the development of Solar PV Equipment and Installation Standards, the ongoing process of the development of a Solar PV Installer Accreditation Programme, and a review of the principal electricity legislation which is also ongoing.

Market Outlook

Eswatini's electricity sector is poised for significant transformation driven by growing demand, a shift towards renewable energy, specifically solar PV-embedded generation, and participation of Independent Power Producers in the near future. The demand for electricity in Eswatini is expected to rise as the country's population and economic activity grow. According to the Eswatini Energy Masterplan, the local maximum energy demand is expected to reach 334 MW by 2035. The current 37 MW cap on the SSEG is flexible and subject to grid capacity studies. The Government's commitment to energy diversification toward renewable energy will play an important role in steering policy decisions to ensure that the electricity environment is favourable for new players to enter the market. The national roll-out of SSEG by the end of the 2024/2025 financial year will promote the adoption of embedded power generation, particularly solar PV. Furthermore, anticipated advancements in solar PV technology will increase the affordability and security of supply for electricity consumers in the long-term. The grid electricity prices may increase depending on several factors, including the outcomes of the contract renewal negotiations between ESKOM and EEC and the investments that EEC must make to strengthen its infrastructure. This evolving electricity landscape in Eswatini presents opportunities for an increase in the adoption of solar PV-embedded generation balanced with the interests of the utility company – the EEC. Disposal of solar panels is another business opportunity that Eswatini entrepreneurs can consider. Depending on their condition, solar panels can be reused, recycled, or disposed of in landfills at the end of their useful life (around 25 years). Recycling the panels prevents toxins from entering landfills and polluting the environment and presents an opportunity to recover valuable materials and create green job prospects.

1. INTRODUCTION

This Developer Guide was put together by the Eswatini Economic Policy Analysis and Research Centre (ESEPARC). The ESEPARC is a local research institution that is semi-autonomous to the government, with the aim of building sustainable national capacities to improve the quality and timeliness of public policies in Eswatini. The Guide was reviewed by the Eswatini Energy Regulatory Authority (ESERA), Eswatini Electricity Company (EEC), and Business Eswatini (BE).

The Developer Guide incorporates findings from in-country research, which includes a review of published documents such as country development plans, policies, strategies, annual reports from relevant stakeholders, and published research studies on the electricity sector in Eswatini. The data collection process involved extensive consultations and interviews with key stakeholders and experts in the Eswatini electricity sector, including the EEC, ESERA, solar PV system developers and installers, and financial institutions, to obtain up-to-date information pertaining to what is happening on the ground when it comes to solar PV-embedded generation in Eswatini.

This Developer Guide is a reference document for project developers or installers, private sector technology suppliers, financiers, innovators, entrepreneurs, and consumers regarding opportunities for solar PV-embedded generation in Eswatini. The guide provides an overview of the current state of the electricity industry in relation to solar PV-embedded generation and its contribution to the overall local generation mix. The guide examines the key market players, market potential and implementation models of embedded generation, and opportunities and challenges that exist for project developers of solar PV-embedded generation in Eswatini.

This guide is organised into five (5) main sections (following this introduction):

1. **Country Profile:** This section provides the geographical, demographic, political and economic context of Eswatini.
2. **Electricity Sector Profile:** describes the policies and regulations governing the electricity sector in Eswatini, highlighting recent development, prevailing electricity tariffs, and providing an overview of the renewable energy technology in Eswatini.
3. **Market Potential of SSEG in Eswatini:** this section describes the implementation of SSEG in Eswatini, including pilot projects, SSEG grid penetration, the competitive landscape, and the market outlook.
4. **How-to-Develop SSEG Projects in Eswatini:** provides developers with insights on how to set up a business in Eswatini, including licensing requirements, and the market size.
5. **Financing SSEG Projects in Eswatini:** this section highlights local and international financing options available for Eswatini developers.


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2. COUNTRY PROFILE

2.1 Geography, Topography and Climate

Eswatini (previously known as Swaziland) is a landlocked country bordered by South Africa and Mozambique with an area of approximately 17,364 square kilometres. The Kingdom of Eswatini is a mountainous country divided into four main geographic regions: Hhohho, Manzini, Shiselweni, and Lubombo. Mbabane is the capital and administrative city of the country.

FIGURE 1: Map of Eswatini

Source: United Nations[2]

Despite its small size, Eswatini boasts a rich cultural heritage, stunning landscapes, and a diverse ecosystem. The country experiences a varied climate, with distinct wet and dry seasons. The country has a subtropical climate, characterised by hot summers and mild winters. Rainfall patterns differ across regions, with the western highlands receiving more rainfall than the eastern lowlands do. However, the country is susceptible to arid weather conditions which continue to affect its agricultural production. Eswatini experiences prolonged dry spells, heatwaves, and incidences of hail and storms.

For example, the 2021/22 cropping season was characterised by natural hazards such as hail, waterlogging, thunderstorms, heat waves, and prolonged dry spells (experienced in the Lubombo and Shiselweni regions)[3]. The main climate risks faced by Eswatini citizens include increased flooding, landslides, and wildfires; declines in crop production (with negative impacts on household incomes and livelihoods); reductions in water quality and quantity; increased incidence of waterborne diseases; damaged and destroyed infrastructure; and invasive alien plant species.[4]

2.2 Demographics

The country has a population of about 1.2 million. The population is predominantly young people (below 35 years old) accounting for 73% and those below 24 years old representing 32% of the total population.

2 https://www.un.org/geospatial/content/eswatini

3 Vulnerability Assessment Committee (VAC) (2022). Annual Vulner ability Assessment and Analysis Report 2022. Deputy Prime Minister's Office. Government of Eswatini. Mbabane

4 Tfwala, S., Mabaso, S., Groenewald, M., Khumalo, K., Matsebula, S., & Murphy, D. (2023). Eswatini Environment Fund: Funding climate change adaptation and biodiversity actions at the local level. Government of the Kingdom of Eswatini. Mbabane: Eswatini. https://napglobalnetwork.org/wp-content/uploads/2023/03/napgn-en-2023-eswatini-environmental-fund.pdf

2.3 Political and Economic Situation

The constitution vests executive authority in the King as the Head of the State. Chapter 6 of the Constitution stipulates that the King is the supreme head of the executive and can exercise executive functions with or without the Cabinet. He cannot initiate legislation, but he may withhold assent to parliamentary legislation. The Prime Minister, appointed by the King, is Head of Government and chairs the Cabinet. The King appoints 10 of the 76 members of the House of Assembly (the lower house of Parliament) and 20 of the 31 members of the Senate (the upper house). Acts of Parliament require approval from both houses and the royal assent. The constitution guarantees judicial independence. Chapter 13 states that the "judiciary is independent and subject only to this constitution".

Lilangeni (SZL) is the currency of Eswatini and is pegged 1:1 to the South African Rand (ZAR). The current (July 2024) exchange rate with the US dollar is US 1.00, equivalent to SZL 18.59. The Kingdom of Eswatini is a lower-middle-income country that is faced with multiple inequalities in social and economic development. Eswatini's Human Development Index (HDI) value stands at 0.61 in 2022 (ranking 142 out of 193 countries) and is characterised by high inequality and a deteriorating social sector. Increasing income inequality is represented by a high Gini index (52%) for high levels of poverty.[5] The proportion of the population living below the national poverty line is 58.9% (SZL 975.30 per person per month), with 20.1% (SZL 463.40 per person per month)[6] below the extreme poverty line and 38.9% classified as the working poor.[7] Youth unemployment stood at 48.7% in 2023, a significant improvement from 58.2% in 2022.[8]

Eswatini is a net importer of goods and services, trading 69% of exports and 74% of imports with the Republic of South Africa.[9] As such, 46.1% of government revenue was generated from the Southern African Customs Union (SACU) receipts in 2022/2023.[10] However, increasing volatility in SACU revenue is met with increasing expenditure, low private sector investment, high public debt, the need for fiscal consolidation, and rising inflationary pressure, all of which affect overall economic development.[11] The country's GDP growth rate increased from 0.5% in 2022 to 4.8% in 2023, showing substantial improvements after the 2020 dip from the COVID-19 pandemic (see Figure 2).

Real GDP is projected to grow by 4.9% in 2024, while the outer years 2025 and 2026 are projected to average 3.4%.[12]

The country's GDP growth has been driven by growth in the manufacturing and tertiary sectors. The tertiary sector has shown consistent growth from 2015 to 2023, with notable improvements in the Information Communication Technology (ICT) sector, wholesale and retail, and construction activities. The recovery of the tourism and hospitality industry has boosted economic development after the pandemic.

5 UNFPA (2021). Kingdom of Eswatini Facts And Prospects: Sexual and Reproductive Health and Rights 2019. https://eswatini.unfpa.org/sites/default/files/pub-pdf/UNFPA_MIC_Country_Policy_Brief_ESWATINI.pdf

6 UNICEF (2017). Quantitative Assessment of the Social Assistance System in the Kingdom of Eswatini. https://reliefweb.int/report/eswatini/quantitative-assessment-social-assistance-system-kingdom-eswatini?_gl=1*1g0gv4f*_ga*MTE0MzgzNTQ2OS4xNzE2Mzc3NDk1*_ga_E60ZNX2F68*MTcxOTkzNDQ5MC40LjAuMTcxOTkzNDQ5MC42MC4wLjA

7 Central Statistics Office (2016). Eswatini Household Income and Expenditure Survey (ESHIES) 2016/2017. Government of Eswatini. Mbabane

8 Ministry of Labour and Social Security (2023). Integrated Labour force survey 2023: Key Findings Results. Government of Eswatini. Mbabane

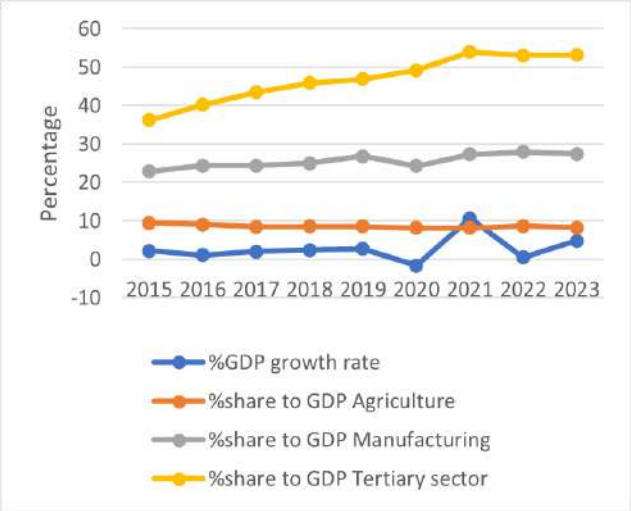
9 Ministry of Economic Planning and Development (2022). Eswatini National Development Plan 2022/23 – 2027/2028. Government of Eswatini. Mbabane

10 Ministry of Finance, Budget Speech 2024

11 Ministry of Economic Planning and Development (2022). Eswatini National Development Plan 2022/23 – 2027/2028. Government of Eswatini. Mbabane

12 MEPD & CBE (2024). 2023 Gross Domestic Product (GDP) Forecast Review. January 2024. https://www.gov.sz/images/GDP-Projections-Statement-_f_17Jan2024.pdf

FIGURE 2: Annual GDP Growth



Source: MEPD[13]

Agriculture remains a significant contributor to the economy, particularly in terms of employment and livelihoods, contributing 8.2% to GDP in 2023.[14] Eswatini's economy is primarily based on agriculture, with a focus on sugar, forestry, and livestock. The country's manufacturing sector constitutes mainly the production of soft drink concentrates, textiles, and sugar, which accounts for 91% of total exports.[15] In recent years, Eswatini has attracted foreign direct investment (FDI), particularly in the manufacturing and services sectors.

2.4 Mobile Network Penetration

At the end of March 2022, Eswatini had five (5) broadcasters, three (3) telecommunications operators, and fifteen (15) Internet Service Providers.[16] Telecommunications operators comprise two providers of mobile communication services, Eswatini MTN and Eswatini Mobile, and one provider of fixed telecommunication services, Eswatini Posts and Telecommunications Corporation (EPTC). According to the ICT sector report (2022), mobile cellular market penetration has increased from 101% in 2020 to 131% in 2022, with mobile broadband penetration increasing from 75% to 119% in the same period. The mobile network geographic coverage was 78.2%, with 3G coverage accessible to 99.1%, whereas 4G coverage was 80.4%. Despite high mobile phone penetration, Internet adoption rates in Eswatini are low, at only 47% of the population.[17] One potential reason for this is the high costs associated with accessing the Internet. The average price of 1 GB of data in Eswatini is SZL 99.50[18] (equivalent to US$ 5.39 in July 2024 exchange rate US$ = ZAR 18.59). According to the Assessment of Eswatini's E-Commerce Readiness Report by EU Africa RISE (2023), Internet access in Eswatini is expensive due to limited infrastructure and economies of scale. Fixed-line broadband packages cost up to 14.1% of Gross National Income (GNI), whereas mobile data and voice packages cost up to 5.6% of GNI. The high-cost acts as a barrier to greater Internet access.

The 2022 Information Communication and Technology Access and Use Survey (ICTAUS) report revealed that about 67% of households across the country have Internet coverage, with 70% in urban areas and 63% in rural areas.[19] Another notable finding is the low rate of e-commerce uptake at 5.2% overall. [20]

13 Ministry of Economic Planning and Development (2023). Quarterly Economic Bulletin: 2023 Q4: Oct – Dec. Government of Eswatini. Mbabane

14 Central Statistics Office (2021). Annual GDP Report 2021. Government of Eswatini. Mbabane

15 International Trade Centre (2022) Eswatini Alliances for Action: Support for Job Creation and the Investment Climate Eswatini. Inception Report. International Trade Centre

16 ESCCOM (2022). Information and Communication Technology Sector Report. https://www.esccom.org.sz/publications/reports/docs/ICT_REPORT_2022.pdf

17 EU Africa RISE (2023). Assessment of Eswatini's E-commerce Readiness. https://www.esccom.org.sz/ict-statistics/studies/docs/ecommerce%20readiness.pdf

18 ESCCOM (2023). ICT Country Profile. https://www.esccom.org.sz/ict-statistics/industry-stats/docs/ICT_Country_Profile.pdf

19 ESCCOM (2022). Information Communication and Technology Access and Use Survey. https://www.esccom.org.sz/ict-statistics/studies/docs/ICTAUS%20Survey%202022%20Report%20Only.pdf

20 ESSCOM (2023). Annual Report 2022/2023. https://www.esccom.org.sz/publications/reports/docs/2023.pdf

3. ELECTRICITY SECTOR PROFILE

3.1 Electricity Policies and Regulations

The Eswatini electricity supply industry is governed by the following legislation and policy papers:

- **Eswatini Electricity Act of 2007:** Regulates the electricity supply industry, including generation, transmission, and distribution. Any entity generating, transmitting, or distributing more than 1 GWh of electricity annually must be licensed by the ESERA. Licences are also required for off-grid and mini-grid generation as well as for importing and exporting electricity. However, entities that generate electricity for their own use or sell less than 1 GWh per year are exempt. The Act aims to ensure proper regulation of the electricity sector in Eswatini.
- **The Energy Regulatory Act of 2007:** Establishes the energy regulator, ESERA, with the power to receive licence applications, modify licences, approve tariffs, and monitor operator performance. It is a key legislation for SSEG in Eswatini.
- **The Electricity Company Act of 2007:** Establishes EEC as a corporate entity to manage electricity generation, transmission, distribution, supply, import, and export in Eswatini, regulated by ESERA.
- **Electricity Act By-laws of 2016:** Outlines procedures for the application, consideration, and award of licences as required by the Electricity Act of 2007. Licences are required for activities such as generation, transmission, system operation, supply, and import/export. Generation plants below 100 kW for own-use purposes do not require a licence, whereas those above 100 kW can warrant an exemption application under certain conditions.
- **Independent Power Producer (IPP) Policy, 2016:** Crucial in shaping the country's regulatory framework for SSEG. The policy aims to increase private sector involvement in the electricity sector to expand renewable energy generation, aligning with the country's development goals. Key objectives include utilising local renewable energy resources such as biomass, solar PV, and wind, and promoting IPP capacity to enhance energy security, thus enabling embedded generation and mini-grid solutions for rural energy access.
- **National Energy Policy, 2018:** Aims to ensure electricity supply security, promote renewable energy (RE) to reach 50% of the energy mix, develop national RE capacities, liberalise the electricity market, establish local standards for RE and energy efficiency technologies, and facilitate IPP access through an effective regulatory framework.
- **Energy Masterplan, 2034:** Aims to balance energy affordability and sustainability. Its objectives include reviewing current energy policies, predicting future energy demands, identifying energy sources, and providing development paths. The plan covers electricity and primary fuel supply with a focus on RE. Key recommendations include increasing RE development with private sector involvement, creating a distributed power-generation plan, and facilitating private sector engagement in rural electrification through policies and regulations.
- **Licensing Framework:** Licensing is a key function of the ESERA, which includes issuing licences, enforcing compliance, and regulating tariffs and conditions.

Different licence types are available, such as generation, transmission, distribution, supply, import/export, and off-grid supply. Exemptions can be granted for own-use purposes or small-scale selling. Combined licences are also possible under the Electricity Act, allowing flexibility in licensing arrangements.

- **Subsidy Framework:** Guidelines for subsidies were released by the ESERA under the Electricity Act of 2007. The aim is to eliminate cross-subsidies, align tariffs with costs, promote responsible consumption, and aid low-income households. It aims to support vulnerable customers during the transition to cost-reflective tariffs.
- **Energy Efficiency and Conservation Policy, 2018:** Aims to boost energy efficiency programmes for sustainable development aligned with the National Energy Policy, 2018. Its objectives include enhancing energy security, mitigating climate change, promoting a sustainable energy supply, and ensuring affordable energy access.

3.1.1 Recent Developments in Electricity Sector of Eswatini

The electricity supply industry in Eswatini is currently undergoing several reforms, with the Eswatini Independent Power Producer Policy of 2016 outlining the permitted transactions at various stages of market development. The Tariff Methodology is being revised to account for anticipated changes in the sector that will result in increased private sector participation and technological advancements. Furthermore, the EEC and ESERA initiated an SSEG pilot project that aimed to operationalise the SSEG Framework developed in 2021.

Completed frameworks that seek to pave way for the liberation of the electricity market in Eswatini include the[21]

- wheeling framework;
- mini- and off-grid framework;
- quality of supply and service standards for the electricity sector; and
- review of grid codes.

The development of Standards for solar PV Equipment and Installation has been completed by ESERA and awaiting to be gazetted, as well as the Energy Storage Requirements Framework which is awaiting internal approval. The Solar Accreditation Programme is under development and should be completed by December 2024.

Also, the EEC has completed a pilot project for the installation of smart meters. There is a plan to roll out more to affluent areas in the country. Smart meters play an important role in providing real-time data on energy consumption and generation, enabling a more efficient utilisation of solar energy. By integrating the Internet of Things (IoT) technology, smart meters can monitor energy usage patterns, detect anomalies, and suggest energy-saving strategies. They facilitate two-way communication, allowing users to access their energy data remotely and make informed decisions to optimise energy usage. Additionally, smart meters can accurately measure parameters such as voltage, current, and power in real time, aiding energy accounting and auditing. This technology enhances energy management by enabling users to track their daily energy consumption and remotely access their loads, thereby promoting sustainable development and reducing costs.

21 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

3.2 Eswatini Electricity Industry Structure

FIGURE 3: Lavumisa 10 MW Solar Plant Owned and Operated by EEC

(Courtesy Pic)

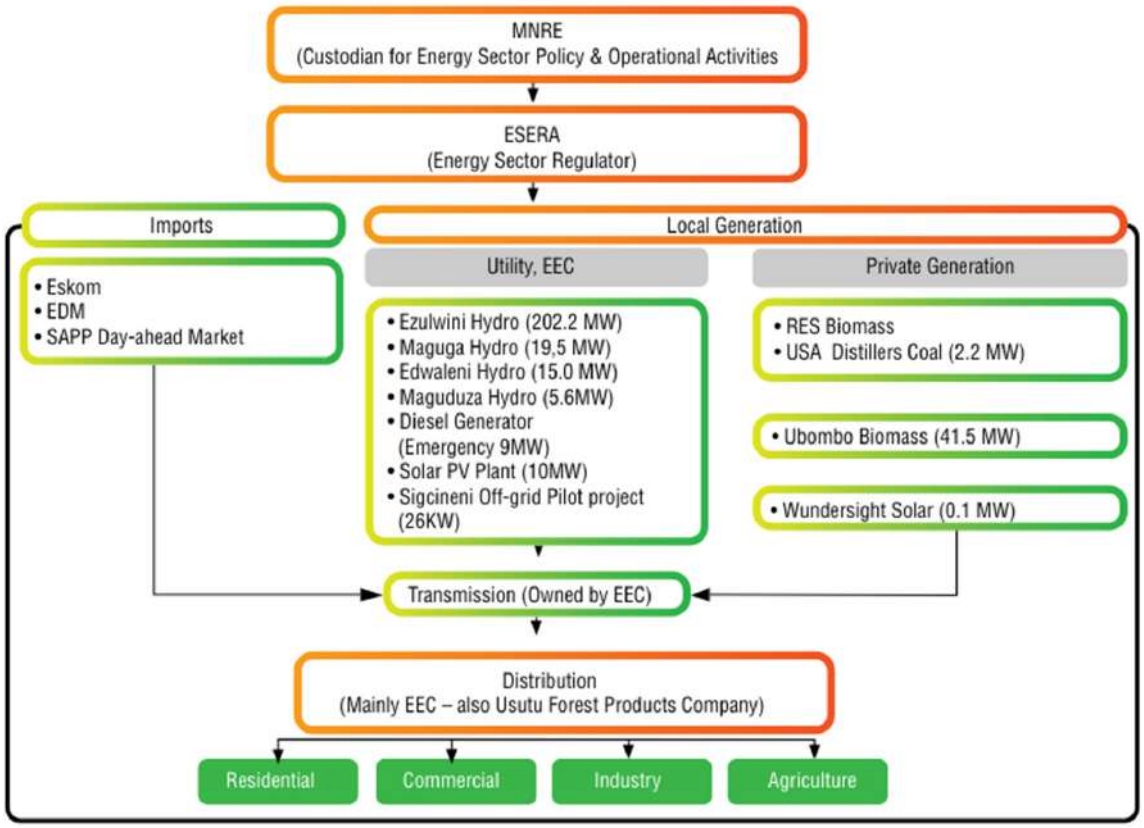
Figure 4 illustrates the structure of the Eswatini electricity industry and key sector participants. Eswatini's electricity sector is undergoing a transformative phase, marked by the active involvement of a wide array of market players, including the government, regulators, utility companies, IPPs, and consumers. The periphery of the electricity supply industry includes installers, system developers, and financial institutions. Each stakeholder plays a pivotal role in shaping a country's energy landscape and driving the transition towards renewable energy sources.

The Energy Department of the Ministry of Natural Resources and Energy (MNRE) in Eswatini is the custodian for energy-related policies and operational activities. Their mission is to effectively manage national energy resources, ensuring that energy is affordable and sustainable for all citizens, and fostering an international competitive energy sector. Eswatini's energy sector is regulated by the ESERA, established in terms of the Energy Regulatory Act of 2007. The Authority is responsible for regulating the electricity supply, as well as the downstream petroleum sector under the Petroleum Act of 2020. ESERA regulates the electricity industry by issuing licences for power generation, transmission, system operation, distribution, supply, import, and export. The ESERA also regulates electricity tariffs, prices, charges, monitors and enforces compliance, handles complaints, and protects consumer interests while maintaining industry sustainability.[22]

The EEC is a state-owned and vertically integrated national utility responsible for power generation, importation, transmission, distribution, and supply. The company was established under the Swaziland Electricity Company Act, 2007. EEC generates, transmits, and distributes electricity to residential, commercial, industrial, and agricultural customers.

22 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

FIGURE 4: Eswatini Electricity Industry Structure



Source: ESERA Strategic Plan 2023–2025 [23]

The key players in local electricity generation are the EEC (70.4 MW installed capacity), the Royal Eswatini Sugar Corporation (RESCorp) (65.5 MW installed capacity), Ubombo Sugar Limited (USL) (43.5 MW installed capacity), USA Distillers (2.2 MW installed capacity), and Wundersight (0.1 MW installed capacity) as shown in Table 1. USL and Wundersight are the only active IPPs that supply electricity to the grid, whereas RESCorp and USA Distillers use their generated electricity solely for own consumption. There are also SSEGs (Hydro and Solar PV) in the mix, totalling 21.3 MW of installed capacity, installed primarily by domestic and commercial consumers.

TABLE 1: Local Electricity Generation Mix and Installed Capacity

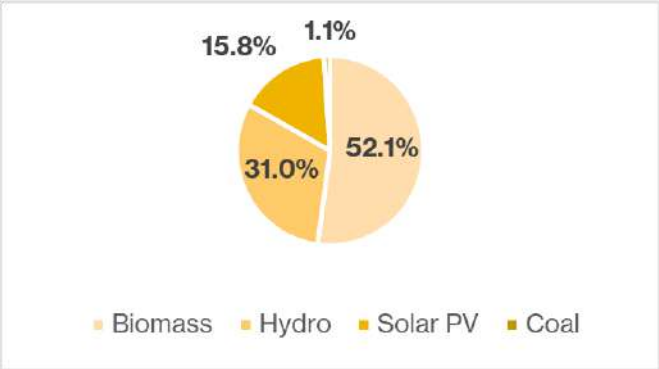
Technology	Licensee	Installed Capacity (MW)
Biomass	RESCorp	65.5
	USL	41
Hydro power	EEC	60.4
	USL	2.5
	Exempted SSEGs	0.5
Solar PV	EEC	10
	Exempted SSEGs	20.8
	Wundersight	0.1
Coal	USA Distillers	2.2
Total		**203**

Source: ESERA Strategic Plan 2023–2025 [24]

23 ESERA, 2023, ESERA Strategic Plan 2023-2025, https://www.esera.org.sz/media/publications/docs/ESERA%20Strategic%20Report.pdf

24 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

FIGURE 5: Installed Electricity Generation Capacity Mix



Data Source: ESERA Annual Report 2022/2023[25]

The overall national electrification rate is 82%. Despite significant progress in overall access, only 60.6% in Lubombo and 56.4% in Shiselweni have access to electricity, limiting agricultural output and agro-processing in these mostly rural regions.[26] In 2023, only 79% of people living in rural areas had access to grid-supplied electricity, compared to an access rate above 85% in urban areas. The Government of Eswatini is committed to achieving 100% electrification by 2030.[27]

3.3 Electricity Maximum Demand and Consumption

Eswatini cannot generate sufficient electricity to meet its base load of approximately 110 MW.[28] The local maximum electricity demand was recorded to be 245.17 MW in 2020[29] and is expected to grow to 334 MW by 2035[30] as the country's population and economic activity grow.

Approximately 70% to 80% of Eswatini's electricity is imported via Power Purchase Agreements (PPAs) with ESKOM from South Africa, Electricidade de Moçambique (EDM) from Mozambique, and via the Southern Africa Power Pool (SAPP) through the day-ahead-market. The 20% local supply of electricity comprises 60.4 MW hydropower and 10 MW solar power.[31] The total local energy production increased by 23.2%, from 576 GWh in 2018/2019 to 709.90 GWh in 2022/2023.[32] This increase was due to the higher water levels in the local dams as a result of adequate rainfall.

Eswatini relies heavily on South Africa for electricity, and in recent years, South Africa has been experiencing one of the worst periods of load shedding. The load-shedding crisis in South Africa does not always translate into the same situation in Eswatini. The EEC has been able to use its internal generation to mitigate the effects of load shedding, which would have otherwise affected the country.

The total number of EEC customers was 269,331 in 2023, a marked increase from 134,765 in 2014. Figure 6 depicts the number of EEC customers by customer category. Domestic customers accounted for 92.5% in March 2023, followed by small commercial customers (7.2%) and major or large customers (0.3%). However, large or major customers, who account for the smallest share of EEC customers, consume the most electricity (see Figure 7). For the past three years, electricity offtake among EECs' large or major customers has been on a downward trend largely as a result of a shift to embedded solar energy.

25 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

26 World Bank, (2023), Country Partnership Framework for the Kingdom of Eswatini for the Period FY24-FY28, https://documents1.worldbank.org/curated/en/099042723094536162/pdf/BOSIB0d60aef2907709f760cc6d21fbe12f.pdf

27 Government of Eswatini, 2023, National Development Plan 2023 – 2028, https://www.gov.sz/images/planningministry/National-Development--Plan-2023-2028.

28 ICAT, 2022, Biomass Electricity Prospects in Eswatini and Preliminary Results of LULUCF GHG Inventory Update for Eswatini: Workshop report, https://climateactiontransparency.org/wp-content/uploads/2022/09/Activity-5-Renewable-Energy-Policy-Assessment-Scenario-Workshop-Report-1.pdf

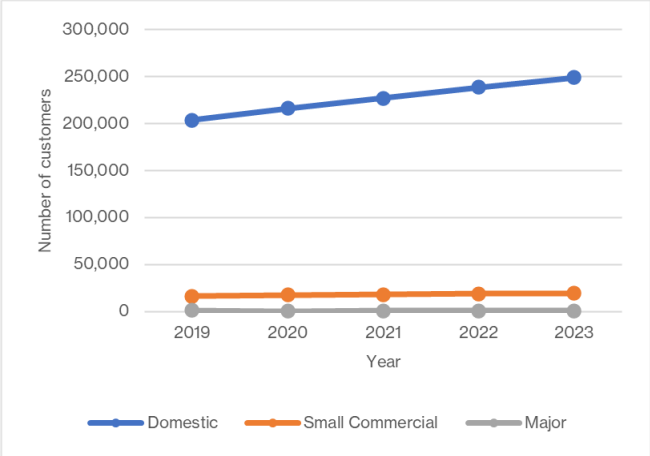
29 EEC, 2023, Annual Report 2022/23, https://www.eec.co.sz/aboutus/reports/docs/EEC_IAR23.pdf

30 Economic Consulting Associates, 2018, Cost of Service Study for the Swaziland Electricity Supply Industry, https://www.esera.org.sz/tariffs/docs/1578994685.pdf

31 ICAT, 2022, Biomass Electricity Prospects in Eswatini and Preliminary Results of LULUCF GHG Inventory Update for Eswatini: Workshop report, https://climateactiontransparency.org/wp-content/uploads/2022/09/Activity-5-Renewable-Energy-Policy-Assessment-Scenario-Workshop-Report-1.pdf

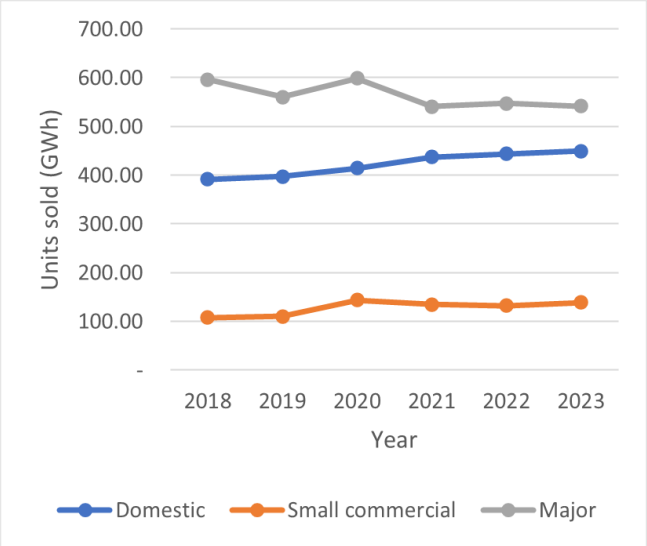
32 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

FIGURE 6: Categories of EEC Customers



Data Source: EEC Annual Report 2022/2023[33]

FIGURE 7: EEC Units Sold to Customers



Data Source: EEC Annual Report 2022/2023[34]

3.4 Electricity Tariffs

The regulator uses the Tariff Methodology[35] to review and approve tariffs to be charged to end-user customers by an electricity supplier. In regulating electricity tariffs, ESERA considers three key aspects:

i. **Allowable revenue requirement:** This represents the amount of revenue that a regulated entity is allowed to cover, such as prudent costs incurred to generate, transmit, and distribute electricity. This ensures that investors receive fair returns on their investments.

ii. **Tariff structure:** Defines the components that constitute the electricity bill. This includes factors such as differentiation (how tariffs vary for different customer categories) and cost allocation (how costs are distributed across various services).

iii. **Tariff level:** Refers to pricing levels set for different tariff components. This determines how much consumers pay for specific aspects of electricity usage.

The EEC makes the following assumptions in their tariff increase application to ESERA[36] :

- Inflation projections
- Exchange rates projections (some of EEC's purchases are in US Dollars, including wheeling charges, day-ahead-market, EDM purchases)
- Weighted average cost of capital (rate of return)
- ESKOM tariffs
- Population growth
- Grid extension costs
- System losses (technical and economic losses)

The regulator must ensure that the utility receives tariffs sufficient to cover reasonable costs and a reasonable return on invested capital while also considering consumer affordability issues. For the financial year starting 1 April 2024/25, the ESERA approved an average tariff increase of 8.02%.

33 EEC, 2023, Annual Report 2022/23, https://www.eec.co.sz/aboutus/reports/docs/EEC_IAR23.pdf

34 EEC, 2023, Annual Report 2022/23, https://www.eec.co.sz/aboutus/reports/docs/EEC_IAR23.pdf

35 ESERA, 2011, Electricity Tariff Methodology, https://www.esera.org.sz/tariffs/docs/1531322189.pdf

36 EEC, 2018, Tariff Increase Proposal for the Financial Year 2021/21 and 2021/22 (2 years), https://www.esera.org.sz/tariffs/docs/1576909964.pdf

Tables 2 and 3 show the implemented tariff schedules for different customer categories.

TABLE 2: Non-Time of Use (NON-TOU) Tariff Structure by Customer Category 2024/2025

Type	NON-TOU TARIFFS	Facility Charge E/Month	Energy Charge E/kWh
S10	Lifeline (0-75 kWh)	-	1.3959
	Lifeline (76-100 kWh)	-	2.3366
	Lifeline (> 100 kWh)	-	5.1185
S1	Domestic	-	2.3266
S2	General purpose	189.02	2.7617
S3	Small Commercial - Prepayment	189.02	2.7617
S3	Small Commercial - Credit Meter	378.04	2.7617

Data Source: EEC[37]

It is important to note that the tariff is inclusive of a 2.5% levy (of the energy charge) for the Rural Electrification Access fund and exclusive of the Value Added Tax (VAT) applicable to all non-domestic customers.[38]

TABLE 3: Time of Use (TOU) Tariff Structure by Customer Category 2024/2025

TOU TARIFFS	T1	T2	T3	T4
	TOU at MV at HV network	TOU at MV	TOU at LV	TOU small irrigation < 100 kVA
Facility Charge E/Month	5,483.58	2,639.17	1,985.29	1,687.50
Demand E/kVA	191.34	200.45	210.47	178.90
Access Charge E/kVA	63.48	66.50	63.74	59.35
Energy - Low Demand - Peak E/kWh	1.9355	1.9882	2.0234	1.7470
Energy - Low Demand - Standard E/kWh	1.3764	1.4122	1.4362	1.2480
Energy - Low Demand - Off-Peak E/kWh	1.1099	1.1376	1.1563	1.0098
Energy - High Demand - Peak E/kWh	5.5089	5.6741	5.7841	4.9167
Energy - High Demand - Standard E/kWh	1.6881	1.7389	1.7725	1.5067
Energy - High Demand - Off-Peak E/kWh	1.1099	1.1376	1.1563	1.0098

Data Source: EEC[39]

Time of Use (TOU) tariffs encourage electricity consumption during off-peak hours when electricity rates are lowest, leading to potential savings for customers on their electricity bills. Solar PV system owners can optimise their electricity use by running high-consumption appliances during off-peak hours or when their solar production is at its highest. When planning a solar installation, TOU tariffs may influence the ideal system size to maximise financial benefits.

37 https://www.eec.co.sz/media/notices/docs/WhatsApp%20Image%202024-03-05%20at%209.18.07%20AM.jpeg
38 https://www.eec.co.sz/domestic/tariffs/
39 https://www.eec.co.sz/media/notices/docs/WhatsApp%20Image%202024-03-05%20at%209.18.07%20AM.jpeg

TABLE 4: Peak and Off-Peak Hours

Season	Time Period	Weekday Hours
Summer (Low Demand)	**Peak Hours**	8 a.m. – 10 a.m. / 6 p.m. – 8 p.m.
	Standard Hours	6 a.m. – 7 a.m. / 10 a.m. – 6 p.m. / 8 p.m. – 10 p.m.
	Off-Peak Hours	10 p.m. – 6 a.m.
Winter (High Demand)	**Peak Hours**	6 a.m. – 9 a.m. / 5 p.m. – 7 p.m.
	Standard Hours	9 a.m. – 5 p.m. / 7 p.m. – 10 p.m.
	Off-Peak Hours	10 p.m. – 6 a.m.

Figure 8 shows that the average unit price of electricity has been steadily increasing from E1.18 per unit in 2017/18 to E2.55 in 2022/23. The average price per unit of electricity was projected to reach an all-time high of E3.02 per unit in 2024/25. Tariff increases are mainly attributed to rising power and transmission investment costs. The PPA between the EEC and ESKOM expires in 2025. The EEC is currently negotiating contract renewal, that could result in a significant increase in price.

FIGURE 8: Annual Trend of Average Unit Price per kWh

Data Source: EEC, 2022[40]

3.5 Renewable Energy Technology Overview in Eswatini

Renewable energy sources provide a more sustainable and cleaner alternative to traditional power-generation systems. These sources include solar, wind, hydro, and biomass energy. Renewable energy sources have a lower carbon footprint, and with technological advances, they have become more affordable and accessible. In the National Development Plan (NDP) 2023/24 – 2027/28, the Government of Eswatini reiterates its commitment to upscale investments in renewable energy technologies to enhance energy supply, access, security, and create an enabling environment for private sector investment in the energy sector.[41]

The IPPs Policy of 2016 was developed to promote the use of local renewable energy resources, such as biomass and solar, and the Energy Master Plan 2034 (published in 2018) outlined additional scenarios for new power-generation capacity up to 2034. Based on the suggestions of the Energy Masterplan 2024, utility-scale solar PV and biomass tenders were issued between 2021 and 2023. Awards for five solar PV IPPs, collectively 75 MW, are currently in progress. Negotiations on the award of the biomass project are underway. The updated Energy Master Plan 2050 was recently approved by Cabinet. A "Short-Term Generation Expansion Plan", modelled on the scenarios generated in the new Energy Masterplan 2050, was published in August 2024.

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40 EEC, 2022, EEC Tariff Review Application for 2023-24 and 2024-25, https://www.esera.org.sz/media/publications/docs/EEC%20Tariff%20Review%20Application%20for%202023-24%20and%202024-25.pdf

41 Government of Eswatini, 2023, National Development Plan 2023 – 2028, https://www.gov.sz/images/planningministry/National-Development--Plan-2023-2028.pdf

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FIGURE 9: Sigcineni 35 kWh Solar PV Mini-grid with 200 kWh Battery Storage

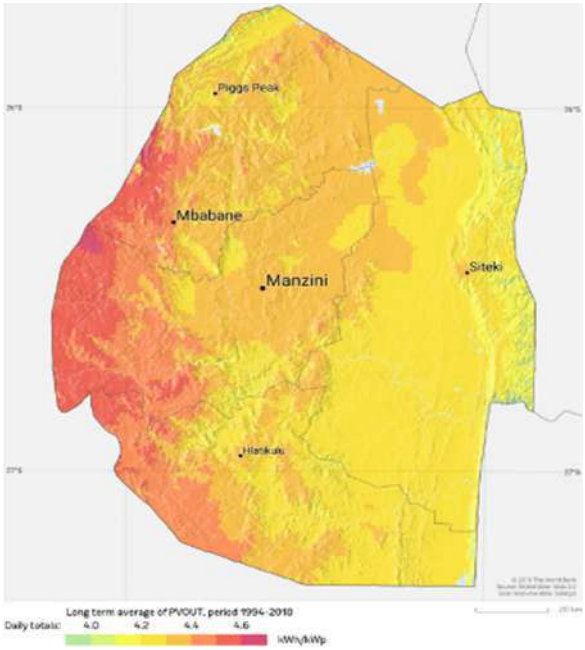
(Courtesy Pic)

3.5.1 Solar Photovoltaic (PV)

Solar irradiance is a key factor in gauging the market potential of solar PV systems. Figure 10 illustrates Eswatini's photovoltaic power potential. Eswatini has relatively abundant solar potential (high solar radiation) throughout the country, with an estimated Global Horizontal Irradiance of 4–6 kWh/m2/day.[42] This means that there are 4–6 peak sun hours (PSH) per day. In simple terms, a 350-Watt solar panel can produce 1.4 kWh to 2.1 kWh/day of energy (350 W x 6 PSH = 2100 Wh/day or 2.1 kWh/day).

Source: World Bank[43]

FIGURE 10: Eswatini Photovoltaic Power Potential



The highest irradiation occurs during summer (December–March). The lowest occurs during winter (June–September) but is still adequate for both solar PV and water heating.[44] The EEC owns and operates a 35-kW solar PV off-grid mini-grid complete with a 200 kWh battery storage system that supplies 22 households as a pilot project at Sigcineni and a 10 MW solar plant located at Lavumisa. [45]

42 SE4ALL, 2016, Kingdom of Eswatini Sustainable Energy for All: Investment Prospectus, https://www.se4all-africa.org/fileadmin/uploads/se4all/Documents/Country_IPs/Swaziland_Investment_Prospectus.pdf

43 https://globalsolaratlas.info/download/eswatini

44 SE4ALL, 2016, Kingdom of Eswatini Sustainable Energy for All: Investment Prospectus, https://www.se4all-africa.org/fileadmin/uploads/se4all/Documents/Country_IPs/Swaziland_Investment_Prospectus.pdf

45

A drawback with solar electricity is that it requires storage capacity in case you need the electricity when the sun is not shining. According to a generation-planning study commissioned by the MNRE in 2018, solar PV plants in Eswatini have the potential to compete with electricity import costs if procured through a competitive bidding process.[46]

3.5.2 Biomass

Eswatini has extensive biomass resources and the capacity to generate electricity. There is a total of 106.5 MW installed capacity of biomass (bagasse at sugar mills) by RESCorp and USL combined. The sugar mills and forestry sectors could play a role in generating sustainable biomass electricity for Eswatini. Industry estimates point to 175,000 tonnes of bagasse in the sugar industry and 600,000 to 800,000 tonnes of wood chip production capacity.[47] The MNRE is currently conducting a study with the World Bank to determine the amount of electricity generated from bagasse and woodchips.[48]

3.5.3 Hydro Power

The EEC operates four (4) hydro plants with a total capacity of 60.5 MW. In 2023, EEC signed a PPA with an IPP, Middle Lusutfu Hydropower (Pty) Ltd for the proposed 13.5 MW Lower Maguduza Hydro Power Scheme. There are plans to increase the existing capacity of the Maguga Hydro Power Plant by 10 MW and another 23 MW of capacity downstream, which will be supported by a canal and holding dam situated downstream of the Lower Maguga Hydro Power Station. The main challenge with hydro power in Eswatini is that it is seasonal and not available in sufficient quantities to meet national demand. Hydro power is also vulnerable to drought, as in 2016.

A resource mapping study on hydropower potential in Eswatini was conducted in 2001, supported by the World Bank, and several micro, mini, and small potential hydropower sites were identified.[49] Several of these mini/micro hydropower sites are being promoted, have been identified as viable schemes, and are intended to be developed. These are the Lusushwana River (300 kW), Mpuluzi River (155 kW), Great Usuthu River (490 kW), Mbuluzi River (120 kW), and Lubovane Dam (850 kW).[50]

3.5.4 Wind

The ESERA issued an expression of interest to assess market appetite and readiness to develop wind-power projects in Eswatini. The market responses received will be reviewed and will inform the next phase of the procurement of wind-power projects in Eswatini.

46 https://www.esera.org.sz/electricity/

47 ICAT, 2022, Biomass Electricity Prospects in Eswatini and Preliminary Results of LULUCF GHG Inventory Update for Eswatini: Workshop report, https://climateactiontransparency.org/wp-content/uploads/2022/09/Activity-5-Renewable-Energy-Policy-Assessment-Scenario-Workshop-Report-1.pdf

48 ICAT, 2022, Biomass Electricity Prospects in Eswatini and Preliminary Results of LULUCF GHG Inventory Update for Eswatini: Workshop report, https://climateactiontransparency.org/wp-content/uploads/2022/09/Activity-5-Renewable-Energy-Policy-Assessment-Scenario-Workshop-Report-1.pdf

49 UNIDO (2022). World Small Hydropower Development Report. Southern Africa. https://www.unido.org/sites/default/files/files/2023-08/SOUTHERN_AFRICA_2022.pdf

50 MNRE, 2018, Short-term Generation Expansion Plan for Eswatini: Study Report, https://www.esera.org.sz/legislation/docs/1559738321.pdf

4. THE MARKET POTENTIAL AND IMPLEMENTATION MODELS FOR SMALL-SCALE EMBEDDED GENERATION (SSEG) IN ESWATINI

4.1 Introduction to SSEG in Eswatini

In recent years, domestic, commercial, industrial, and agricultural customers have increased the number of own-use SSEG facilities, most of which are powered by solar PV. This is primarily due to the rising cost of electricity from the grid. As a result, end users are looking for alternative sources of electricity generation to reduce electricity costs. The main driving force for installing solar PV-embedded generation is financial rather than ensuring supply security.

Other reasons include technological advancements, particularly in the solar PV space, and increased environmental awareness among residential and commercial users.

As a result, the ESERA developed an SSEG Framework in 2021/2022 (currently being implemented) to align the country's goals of encouraging private sector participation in the electricity supply industry while also reducing reliance on electricity imports by locally increasing renewable energy capacity, which contributes to addressing climate change issues. By end of 2023, there were 29 ESERA registered SSEGs with a combined licensed capacity of 21.28 MW (see Annex 1).

In 2022, EEC developed requirements for embedded generation systems which are largely for self-consumption based on the SSEG Framework. The SSEG Framework defines SSEG as power-generation installations less than or equal to 1 MVA, which are typically located on residential,

FIGURE 11: Ariel View of 185 kW Rooftop Solar Panels at OK Foods Mbabane

(Courtesy Pic)

commercial, or industrial sites, and the generated power is mainly for self-consumption. This document outlines the conditions and application process for becoming a grid-tied embedded generation to the EEC electrical network.[51] IPPs or "pure generators" (where there is no self-consumption) do not fall under these requirements in terms of the Grid Code. The EEC requirements regarding embedded generators exporting power back onto the network state that a customer must consume more energy (kWh) than they export over the EEC financial year. Any exports beyond this will not be compensated for (where compensation methodologies exist).[52]

51 EEC, 2021, Requirements for Embedded Generation Systems, https://www.eec.co.sz/electricity/production/eg/docs/Requirements_For_Embedded_Generation_Systems_EEC.pdf

52 EEC, 2021, Requirements for Embedded Generation Systems, https://www.eec.co.sz/electricity/production/eg/docs/Requirements_For_Embedded_Generation_Systems_EEC.pdf

4.1.1 SSEG Pilot Project

To address and support the growing appetite of customers to instal their own embedded generators, EEC and ESERA initiated an SSEG pilot project.[53] Its aim is to operationalise the SSEG Framework developed in 2021 by applying and assessing proposed compliance guidelines on existing SSEG sites to ensure that installations are safe, compliant, and in line with the country's objectives.

The project selected six sites, mostly irrigation using solar PV technology, with plant capacities ranging from 140 kW to 1800 kW, and evaluated their compliance with the SSEG framework guidelines and standards. This process is necessary to gather lessons prior to a national roll-out, which will enable SSEG installations across the country to be exported to the grid.[54]

In preparation for the national roll-out, the EEC launched a campaign to encourage solar PV-embedded generators to register their systems with them for approval on or before 31 December 2024. According to the EEC (2024), this is done to ensure compliance with legal and regulatory operating requirements. Failure to obtain approval for the system will result in disconnection from the EEC network, as permitted by Section 52(1) of the Electricity Act, 2007. There is no cost associated with the registration of embedded generators. However, authorisation for connection may incur additional costs related to metering, connection, and grid-impact studies.

The ESERA and the EEC is also conducting a sensitivity analysis on the impact embedded generation will have on the EEC business model. [55]

4.1.2 Net-billing Approach for SSEG

The SSEG Framework adopts a net-billing approach as opposed to net-metering to compensate embedded generators for excess energy they will be feeding into the grid.[56] The national roll-out of the SSEG Framework is fully dependent on the EEC's readiness, and it is expected to be rolled out before the end of the financial year 2024/2025.

Currently, any reverse feed from embedded generators can be accepted by the EEC and in the absence of a developed export tariff by EEC, the approved pilot export tariff of SZL 0.79 should be used. [57]

4.1.3 SSEG Grid Penetration

The SSEG framework capped the penetration of SSEG into the EEC network at 37 MW, which was 15% of the national demand at the time of compiling the Framework and subject to further technical studies. The total approved capacity from SSEGs increased from 17.27 MW in 2021/22 to 21.28 MW in 2022/23, a majority (93%) of which are solar PV systems.[58] There is still room for growth in the SSEG market, with approximately 42.5% of capped capacity still available. It is worth noting that residential or domestic connections are not included in the 21.28 MW licensed with ESERA, who may have already consumed a portion of the total SSEG cap of 37 MW, reducing the slice of the pie that is left even further.

Anyone who wishes to connect to EEC's electrical network must comply with the SSEG requirements and ESERA's regulations. Application forms for the connection of embedded generation (i.e. solar, wind, hydro, diesel etc) to the electricity network of EEC and embedded generator system commissioning form are available here or via EEC Service Centres

53 EEC, 2022, Annual Report 2021/2022, https://www.eec.co.sz/about us/reports/docs/EEC_IAR22.pdf

54 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

55 https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20 Annual%20Report_Final.pdf

56 Key Informant Interview, March 2024

57 Key Informant Interview, ESERA.

58 ESERA, 2023, ESERA Annual Report, https://www.esera.org.sz/media/publications/docs/2022_23%20ESERA%20Annual%20Report_Final.pdf

4.2 Design and Implementation Options

Solar PV-embedded generation systems can be designed for different applications and configurations based on user needs and circumstances, regulatory framework, technology, and technical and commercial considerations. Typically, the implementation model of solar PV-embedded generation in Eswatini is a grid-tied system, in which the system is linked to the national electricity grid which allows customers to use the electricity generated by the system when the sun is shining while also benefiting from being connected to the grid when the solar PV is unable to generate electricity. Users who can afford battery storage can install a hybrid system that combines grid connections with battery storage, thus providing backup during outages.

4.3 Market Sizing

The sugar farming industry is among the early adopters of the embedded generations in Eswatini. In 2018, sugar estates represented more than two-thirds of the total application capacity for embedded generation with the energy regulator. This trend reflects the industry's plans to increase self-generation and, to some extent, electricity exports. For instance, RESCorp is pursuing the development of a substantial 10 MW solar PV project at the Mhlume Sugar Estate.[59] Ubombo Sugar Limited is also in a process to add 10MW solar (an advertisement was issued in 2023 as part of license application to ESERA). The industry's drive towards renewable energy is motivated by its vulnerability to climate change-induced drought and rising electricity tariffs, which threaten sustainable sugarcane production. By actively seeking options to self-generate and become self-sufficient, the industry aims to reduce production costs and contribute to environmental sustainability.

The increased adoption of renewable energy offers several advantages, including financial viability for owners, increasing the country's local generation, helping to reach national renewable energy targets, and minimising the impacts of climate change. However, the industry also faces challenges, such as uncertainties around utility revenue impact, alignment with regulations governing supply quality, and network costs to upgrade and accommodate SSEG. Other key sectors include health, education and domestic customers.

4.4 Competitive Landscape

There are a few market players that are active in the

Eswatini solar PV market. Some are South African companies with branches in Eswatini, whereas others are local entrepreneurs. They offer flexible financing options, such as rent-to-own and paying an initial deposit (a certain percentage of the system cost), after which the balance is settled after the installation is completed.

59 RESCorp Annual Report 2023

https://www.res.co.sz/admin/documents/RES%20Integrated%20Report%202023.pdf

They supply and install solar PV systems, solar water heating, and related equipment (such as inverters, batteries, and charger controllers).

These companies include Wattsup Solar, The Renewable Resource Company, Solsun, Simply Swazi, JHB Group, Langa Energy, and Solar Power. They cater to different market segments, with the smaller ones serving residential customers and small commercial businesses, whereas the larger ones focus more on commercial and industrial installations.

Eswatini businesses working in the renewable energy space are free to join the Renewable Energy Association of Eswatini (REASWA). The mandate of this association is to facilitate access to sustainable energy through the promotion of renewable energy and energy efficiency technologies and provide renewable energy solutions to all societal groups.

4.5 Outlook on Market Development

Demand for electricity in Eswatini is expected to rise as the country's population and economic activity grow. According to the Eswatini Energy Masterplan, local maximum energy demand is expected to reach 334 MW by 2035. The 37 MW cap on SSEG will be subject to review as it is heavily dependent on the extent to which the grid can absorb without violating normal operational limits. The cap can increase if detailed network studies indicate that more SSEG penetration can be achieved by the national grid.

The government's commitment to energy diversification toward renewable energy will play an important role in steering policy decisions to ensure that the electricity environment is favourable for new players to enter the market. The regulator is reviewing the main electricity pieces of legislation to reflect industry developments.

The proposed net-billing approach by the SSEG Framework, which will be used by EEC to compensate for embedded generators that export excess energy to the grid, will encourage the adoption of renewable energy technologies, particularly solar PV. Furthermore, anticipated advancements in solar PV technology will increase the affordability and security of supply for electricity consumers in the long-term. The grid electricity prices may increase depending on several factors, including the outcomes of the contract renewal negotiations between ESKOM and EEC the investments that EEC must make to strengthen its infrastructure. This evolving electricity landscape in Eswatini presents opportunities for an increase in the adoption of solar PV-embedded generation balanced with the interests of the utility company – the EEC. Disposal of solar panels is another business opportunity that Eswatini entrepreneurs can consider. Depending on their condition, solar panels can be reused, recycled, or disposed of in landfills at the end of their useful life (around 25 years). Recycling the panels prevents toxins from entering landfills and polluting the environment and presents an opportunity to recover valuable materials and create green job prospects.

5. HOW TO DEVELOP SSEG PROJECTS IN ESWATINI

5.1 Starting a Business in Eswatini

The first step any potential investor must take before investing in the Eswatini economy is to register their business or company. According to the Companies Act No. 8 of 2009[60] , a business in Eswatini can be registered in various forms, including:[61]

i. **Private Company:** A company that can be formed by one or more people with restrictions on the transfer of shares or debentures. The Companies Act requires that articles from private companies have a clause prohibiting offers to the public for the subscription of any of the shares or debentures.

ii. **Public Company:** Limited liability company that can be formed by two or more people can freely offer shares or debentures and can be listed on the stock exchange.

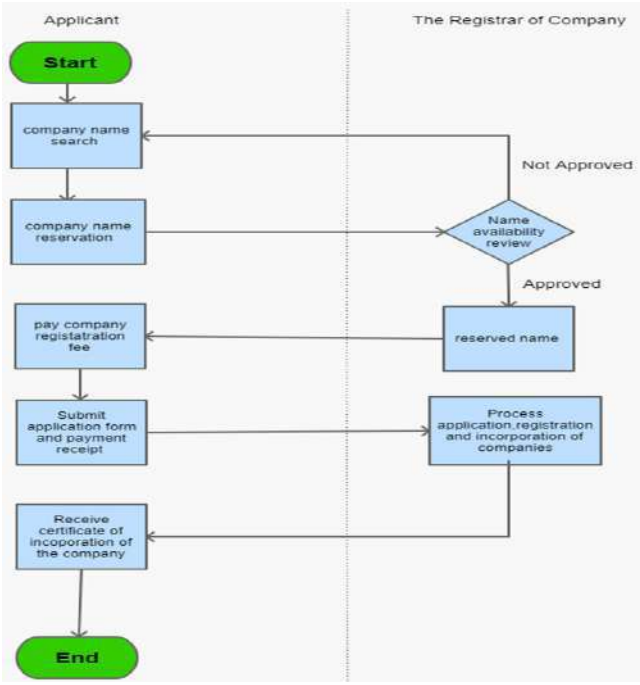
iii. **Local Company:** A company in which Swazi citizens hold more than half of its issued share capital, has citizens forming most of its shareholders who have control over the placement of the Board of Directors, or has citizens forming most of its Board of Directors.

iv. **Company Limited** by Guarantee/ Association Not for Gain: A company that has the main object of promoting religion, arts, sciences, education, charity, recreation, or any other cultural or social activity or communal or group interests, including all game sanctuaries and other similar institutions concerned with the protection of wildlife or fora in Eswatini; it intends to apply its profits or other income in promoting its said main objects and prohibits the payment of any dividend to its members.

v. **Foreign Company:** A company incorporated under the laws of the foreign country but continues business in Eswatini.

The registrar of companies offers both offline and online user registration to make registration services more convenient, efficient, and business-friendly. Online registration for companies is done via the link **www.online.gov.sz.** The registration process is not entirely online, as the final steps (payment of statutory and registration fees) are offline (payable at local offices).[62] Company registration takes no more than three (3) days, whereas the trade licensing period takes less than 21 days.[63] Figure 12 illustrates the company registration process in Eswatini. The requirements to start a business in Eswatini are highlighted in Annex 2.

FIGURE 12: COMPANY REGISTRATION PROCESS IN ESWATINI



Source: Eswatini Trade Information Portal[64]

60 https://investeswatini.org.sz/companies-act-2009/

61 Business Eswatini, 2019, A Practical Guide to Doing Business in Eswatini, https://www.hcimbabane.gov.in/docs/Booklet%20from%20Business%20Eswatini.pdf

62 https://www.state.gov/reports/2023-investment-climate-statements/eswatini/

63 Business Eswatini, 2019, A Practical Guide to Doing Business in Eswatini, https://www.hcimbabane.gov.in/docs/Booklet%20from%20Business%20Eswatini.pdf

64 https://eswatinitradeportal.org/index.php?r=searchProcedure/view1&id=23

In 2020, Eswatini ranked 121 out of 190 economies on the currently discontinued Ease of Doing Business Index by the World Bank.[65] This ranking indicates that there is significant room for improvement in the Eswatini business environment. In comparison with other economies in the Southern African Development Community (SADC), Eswatini ranked 9 out of 15, while Mauritius, South Africa, and Botswana ranked 1, 2, and 3, respectively. The Ease of Doing Business Index captures several important dimensions of the regulatory environment as it applies to local firms. It provides quantitative indicators on regulation for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency The digitalisation of government services is expected to play a role in improving business processes.

Eswatini obtained the same ranking of 121 out of 141 countries in the Global Competitiveness Index by the World Economic Forum in 2019.[66] The Global Competitive Index measures the competitiveness of an economy by considering 12 factors that would determine the level of productivity in a country, including institutions, infrastructure, macroeconomic environment, health, education, labour market efficiency, financial market development, technological readiness, market size, and innovation.

TABLE 5: COMPANY REGISTRATION FEES

Nominal Capital (SZL)	Fee (SZL)
Does not exceed 10,000.00	625.00
Does not exceed 30,000.00	925.00
Does not exceed 50,000.00	1300.00
Exceeds 50,000.00	1825.00

Data Source: MCIT

65 World Bank (2020). Eswatini Ease of Doing Business. https://archive.doingbusiness.org/content/dam/doingBusiness/country/e/eswatini/SWZ.pdf

66 http://new.observer.org.sz/details.php?id=10447

5.1.1 Registration of Foreign Companies

According to the Ministry of Commerce, Industry and Trade (MCIT), a foreign company shall within twenty-one (21) days after establishing a place of business in Eswatini lodge with the office of the registrar of companies in compliance with the Companies Act: [67]

- A certified copy of the memorandum and certificate of incorporation of the company in English and, if not written in English, a certified translation in English from the country of origin. A notice of a registered office in Eswatini shall be a place located on the premises to which all communications are addressed and delivered.
- A registered postal address to which all mail notices may be served to.
- The name and addresses of the company's auditor in Eswatini.
- If permanently employed, each director will provide his/her full forenames, surnames, or any other name, nationality, occupation, relevant qualifications, residential, business, postal address, proof of compliance with immigration laws, and date of appointment in the company.
- The local manager, secretaries, and any other member of the executive will also submit their full forenames, surname, nationality, occupation, relevant qualifications, residential, business, and postal addresses, proof of compliance with immigration laws, and appointment in the company.

The company registration fees for foreign companies are the same as those for local companies, and they are scheduled as follows in Table 5:

67 https://www.gov.sz/index.php/departments-sp-1596706154?id=522

5.1.2 Licensing and Permits

The Registrar of Companies of the MCIT is responsible for registering businesses in Eswatini. The Companies Act No. 8 of 2009[68] regulates company registration while the Trading Licences Order 1975 (Order No 20 of 1975)[69] and The Trading Licences (Amendment of Schedule) A Regulations Notice, 2006 regulate company licensing.

To start a business in Eswatini, a company must obtain a trading licence, register for taxes, have a physical address, and obtain work permits for any foreign nationals and directors who wish to work in the country.[70] Foreign nationals seeking an Eswatini visa should submit their applications to the Ministry of Home Affairs (MoHA) or to the nearby country's mission and representative offices for processing. All visitors to Eswatini require a visa, except for those with passports from SADC countries, some common markets for Eastern and Southern Africa (COMESA) countries, European Union (EU) member states, the United Kingdom (UK), the United States, Canada, Australia, Taiwan, and a few other countries.[71] Table 6 highlights the associated costs of the visa and work permit applications.

TABLE 6: ASSOCIATED COSTS OF VISA AND WORK PERMIT APPLICATIONS

Visa Application[72]		Work Permit[73]	
Type	**Cost (SZL)**	**Type**	**Cost (SZL)**
3 Months Single Entry	80.00	60 months	6,000.00
3 Months Multiple Entry	300.00	24 months	2,400.00
6 Months Multiple Entry	700.00	12 months	1,200.00
9 Months Multiple Entry	1,000.00	6 Months Multiple Entry	600.00
12 Months Multiple Entry	1,300.00		

Source: EIPA[74]

5.1.3 Value Added Tax (VAT) and Excise Duties

VAT is levied on most products and services at a standard rate of 15%. The zero rate applies to exports, certain food supplies, prescription drugs and medicines, and animal feeds, while exemptions apply to passenger transport, education, financial, insurance, and medical services. VAT applies to both local products and imports at the same rate. For local products, VAT is levied on the net selling price (plus excise duty if applicable). For imports, VAT is levied on the cost, insurance, and freight (c.i.f.) values. VAT on imports, including those from SACU members, is collected by the Eswatini Revenue Services (ERS) at the port of entry. Under the VAT refund administration scheme established in 2015, importers of goods from South Africa that present a South African tax invoice at the border do not have to pay for VAT in cash upon entry into Eswatini, as the ERS claims the VAT refund directly from the South African Revenue Service. [75]

68 https://investeswatini.org.sz/companies-act-2009/

69 https://eswatinitradeportal.org/kcfinder/upload/files/Legal_1588671037.pdf

70 Business Eswatini, 2019, A Practical Guide to Doing Business in Eswatini, https://www.hcimbabane.gov.in/docs/Booklet%20from%20Business%20Eswatini.pdf

71 Business Eswatini, 2021, A Practical Guide to Doing Business in Eswatini, https://www.hcimbabane.gov.in/docs/Booklet%20from%20Business%20Eswatini.pdf

72 Note: On arrival the applicant must submit their passport to EIPA to forward to the Immigration Department for stamping.

73 Note: Costs associated with documents that need to be certified by the registrar of companies will be communicated by EIPA.

74 https://investeswatini.org.sz/start-a-business/

75 World Trade Organization (WTO), 2023, WT/TPR/S/447, Eswatini,

5.1.4 Statutory Deductions

- **Pay-As-You-Earn (PAYE):** Every person who becomes an employer should apply to be registered for PAYE purposes. An employer who pays remuneration to an employee must deduct employee tax (PAYE) from the remuneration of employees and pay the tax deducted to the ERS monthly. Such payments should be made to the ERS before the 14th of the following month.[76]
- **Provident Fund:** All employers are required by law to register with the fund in terms of the Registration of Contributing Employers' Order 1975. Non-citizens of Eswatini are prohibited from contributing to the Eswatini National Provident Fund.[77]

TABLE 7: REQUIREMENTS FOR OPENING A BANK IN ESWATINI

Requirement	Local Individuals	Foreign Individuals	Businesses
Proof of Identity	National ID	Passport	Business Registration Certificate
Proof of Address	Utility bill or lease agreement	Utility bill or lease agreement	Utility bill or lease agreement for business premises
Initial Deposit	Varies by bank and account type	Varies by bank and account type	Varies by bank and account type
Tax Identification Number	Required	Required	Required
Business Licence	Not applicable	Not applicable	Required
Board Resolution	Not applicable	Not applicable	Required (for companies)
Certificate of Incorporation	Not applicable	Not applicable	Required
Memorandum and Articles of Association	Not applicable	Not applicable	Required
Directors' Proof of Identity	Not applicable	Not applicable	Required
Directors' Proof of Address	Not applicable	Not applicable	Required

Source: Eswatini local banks

5.2 Opening a Bank Account

Opening a bank account in Eswatini is generally straightforward, with major banks offering a range of personal and business banking services. The general requirements are as follows:

5.2.1 Money Transfers and Repatriation

Transferring money and repatriating profits are relatively easy in Eswatini, as the country is part of the Common Monetary Area (CMA) with South Africa.[78] This allows for free movement of funds between the two countries. As a member of the CMA, Eswatini's foreign exchange market is closely linked to that of South Africa. The SZL remains pegged on a one-to-one basis ZAR, maintaining a fixed exchange rate parity. The ZAR is also a legal tender in Eswatini, alongside the SZL. This facilitates cross-border transactions and repatriation of profits for businesses operating in both countries.[79] The major banks in Eswatini, such as Nedbank, Standard Bank, and First National Bank, offer accounts specifically for non-residents, diplomats, and temporary residents. These accounts allow for easy transactions in Lilangeni and provide access to debit/credit cards, online banking, and investment products.

76 Eswatini Revenue Service, Step-by-step Guide for New Businesses, https://www.ers.org.sz/documents/1674047725.pdf

77 https://enpf.co.sz/employers/

78 Celebrating 50 Years of Price And Financial Stability: https://www.centralbank.org.sz/?r3d=celebrating-50-years-of-price-and-financial-stability Celebrating 50 Years of Price And Financial Stability: https://www.centralbank.org.sz/?r3d=celebrating-50-years-of-price-and-financial-stability

79 Remittance Prices Worldwide: https://remittanceprices.worldbank.org/ Remittance Prices Worldwide: https://remittanceprices.worldbank.org/

5.3 Business Incentives, Trade, and Investment Support

The Swaziland Investment Promotion Act of 1998 provides general provisions for investment in Eswatini. The Act protects investments, encourages non-discrimination in the promotion of investments in Eswatini, and addresses other issues related to investments. In terms of investment protection and dispute resolution, the Act allows both domestic and foreign investors to invest in any sector, except for a few prohibited industries. To protect small and medium-sized enterprises (SMEs) from unfair competition, the government has set aside small sectors, specifically for SMEs.[80]

The Eswatini Investment Promotion Agency (EIPA) is a public entity responsible for developing and implementing schemes to attract foreign and domestic investments. A variety of investment incentives remain available to both local and foreign investors (see Annexes 3 and 4). Electricity generation also benefits from these incentives, as electricity generation is an economic activity classified under manufacturing activities. Amendment of the Income Tax Order, 2023, will bring relief to businesses, one of which is the reduction of corporate tax from 27.5% to 25% on 1 July 2024 (2024 Budget Speech). The Government of Eswatini believes that this change will stimulate new investments and encourage the growth of existing investments.

5.3.1 Eswatini Trade Information Portal (ETIP)

In 2020, the government launched the Eswatini Trade Information Portal (ETIP), a one-stop shop for trade and investment, in accordance with Article 10 of the World Trade Organisation (WTO) agreement, which requires the publication of trade-related procedures. The trade portal publishes procedures for importation, exportation, required transit forms and documents, and other necessary information.[81] The ETIP is hosted by the International Trade Department under the MCIT. The portal provides traders with all trade-related information, such as regulatory requirements, forms, procedures, and fees that traders must pay.[82] The goal is to provide transparency and predictability in trade procedures, which will increase compliance levels and reduce the cost of conducting business. The trade platform is useful for traders, investors, consumers, and government agencies and will ultimately support the growth of trade.[83]

Business Eswatini

Business Eswatini has published a Practical Guide to Doing Business in Eswatini. Read more **here.**

Eswatini Revenue Service

ERS published a Step-by-Step Guide for New Businesses to help with registration for tax purposes, tax return and payments, record keeping, enforcement measure for non-compliance, payments and referencing. Read more **here.**

80 Business Eswatini, 2019, A Practical Guide to Doing Business in Eswatini, https://www.hcimbabane.gov.in/docs/Booklet%20from%20Business%20Eswatini.pdf

81 https://www.state.gov/reports/2023-investment-climate-statements/eswatini/

82 https://eswatinitradeportal.org/index.php?r=site/display&id=12

83 Eswatini Observer, 2020, Govt Launches Trade Information Portal, http://new.observer.org.sz/details.php?id=11783

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5.4 Energy Sector Licensing and Regulations

In addition to the above-mentioned requirements, a business that wishes to generate, transmit, distribute, supply, import, or export electricity from Eswatini must acquire the relevant licence from the ESERA. The application of IPPs for licensing the aforementioned activities must be accompanied by the following:

- a proposal for terms of supply and for fixing the tariffs, including total tariff revenues;
- the structure of calculation of tariffs; and
- information about existing and planned investments and present and future quantities of electricity transmitted, distributed, or sold.

According to ESERA, the entire licensing application process should take up to 120 days, with all other things remaining the same.[84] Generation licences may not be issued by ESERA for a period exceeding 40 years; transmission and system operator licences may not be issued for a period exceeding 30 years; and distribution and supply licences may not be issued for a period exceeding 25 years.[85]

People or entities that do not need a licence to generate, transmit, distribute, or supply electricity are as follows:

- Any person who generates, transmits, or distributes electricity for their own use.
- Any person who sells less than 1 GWh of electricity per annum to customers.
- Off- and mini-grid schemes are specifically exempted by the minister under the statutory ministerial powers provided.

It is an offence to generate, transmit, distribute or supply electricity without a licence duly issued or granted by ESERA. Any person found to have done this outside the parameters of the law is guilty of an offence and may be fined up to E50, 000.00, sentenced to two years imprisonment, or both.

The ESERA is rated "substantial" on the predictability of its regulatory decisions and actions by the African Energy Portal.[86] A transparent and predictable regulatory framework helps investors make informed decisions and boosts their confidence in the energy regulatory environment in Eswatini.

5.4.1 Solar PV-Embedded Generation Requirements

The requirements for embedded generations specify conditions and application process for becoming a grid-connected embedded generator in the EEC electrical network. The requirements are intended to manage embedded generators connected to the EEC grid to ensure the safety of EEC staff, the public, and users of the embedded generation system installation, to maintain the power quality of the EEC electricity network, to clarify metering and billing requirement and options, and to ensure that installed equipment complies with technical standards. Figure 13 illustrates the application and approval process of the embedded generation system.

Application forms for generation, supply, transmission, distribution, import and export licences can be downloaded here

84 https://www.esera.org.sz/licensing/

85 https://www.eec.co.sz/aboutus/legislation/docs/The%20Electricity%20Act%202007.pdf

86 https://africa-energy-portal.org/eri/country/eswatini

FIGURE 13: SUMMARY OF EMBEDDED GENERATION APPLICATION AND APPROVAL PROCESS

Source: Adapted from EEC Embedded Generation Requirements[87]

87 EEC, 2021, Requirements for Embedded Generation Systems, https://www.eec.co.sz/electricity/production/eg/docs/Requirements_For_Embedded_Generation_Systems_EEC.pdf

The Eswatini Embedded Generation Regulatory Framework and other national regulations state that no electrical generation equipment may be connected to the EEC electrical network without the express consent of the EEC. All embedded system customers must enter into an embedded generation system contract with the EEC. The document, General Terms and Conditions: Contract for Connection of an Embedded Generator, is available on the EEC website or from EEC Service Centres, upon approval of compliant embedded generator system.

Embedded generation systems must comply with the following standards and specifications:

- NRS097-2-1:2017: Grid Connection of Embedded Generation (utility interface).
- NRS097-2-3:2014 Grid Connection of Embedded Generation (simplified utility connection criteria for low-voltage connected generators).
- Eswatini Renewable Power Plant Grid Code (although the NRS 097-2 series cover most issues relevant to SSEG).
- SZNS 028: Electricity Supply – Quality of Supply.
- SANS 10142-1 and 10142-1-2: The wiring of premises.
- SZNS NRS 057: Code of Practice for Electricity Metering.
- Other relevant Electricity Supply by-laws.

Test Certificates for Inverters

The EEC requires proof in the form of test certificates for inverters issued by a third-party testing authority certifying that the inverters comply with NRS097-2-1. The use of inverters without this certification is prohibited in both new and existing installations. The installation of reverse feed blocking does not exempt customers from providing NRS097-2-1 certification. Until such times that the Eswatini Standards Authority (ESWASA) issues a mark for inverters, the EEC will require test certificate from the South African National Accreditation System (SANAS) accredited or recognised by the International Laboratory Accreditation Co-operation (ILAC) or the International Accreditation Forum (IAF) in accordance with ISO/IEC 17025:2005 for photovoltaic systems. Accreditation bodies must provide accreditation documentation for specific test locations.

Anti-Islanding Installation

All embedded generation system installations are required to have an anti-islanding function (immediate disconnection when there is a general power outage) as stipulated in NRS 097-2-1. Certification of this effect is required for inverters.

Qualified and Experienced Installers

Customers installing solar PV-embedded generation systems should use industry-accredited installers certified by a third party, such as the PV Green Card: South African Photovoltaic Industries Association endorsed programme to ensure the quality and safety of PV installations (www.pvgreencard.co.za), or P4 quality assurance certification.

Metering

All customers who install embedded generation, whether with reverse feed blocking or not, must have an approved bi-directional meter. The EEC will provide and install the required meters at the customer's expense.

Connection Criteria

Applications to connect embedded generation system installations that exceed the NRS097-2-3 parameters but do not exceed 1 MVA will be accepted by the EEC but may necessitate specialist grid-impact studies in their evaluation. The EEC notifies the customer of these requirements once the application form is received.

NRS 097-2-3 specifies that the maximum individual generation limit on a shared low-voltage (LV) feeder (which applies to most small commercial and residential situations) shall not exceed 25% of the consumer's notified maximum demand (NMD) and be up to a maximum of 20 kVA. Table 8 shows that the SSEG size limitations are derived from NRS 097-2-3 for Shared LV connections.

TABLE 8: SSEG SIZE LIMITATION-NRS 0997-2-3 FOR SHARE LV CONNECTIONS

Service Connection			Maximum Total Generation Capacity of SSEG (kVA)
No. of Phases	Service Circuit Breaker Size (A) Per Phase	Maximum Demand (kVA)	
1	40	9.2	2.3
1	60	13.8	3.5
1	80	18.4	4.6
3	40	27.7	6.9
3	60	41.6	10.4
3	80	55.4	13.8
3	100	69.3	17.3

Data Source: EEC Embedded Generation Requirements[88]

When embedded generation systems include storage, the EEC may permit larger embedded generation systems than those listed in Table 8. Such systems would need to install control mechanisms to ensure that the change in 'active power flow at the point of utility connection', as defined in NRS097-2-3, is limited to 25% of the circuit breaker size during a generator trip. To achieve this, the mechanisms must limit both export power and loads in the event of a generator trip. Before submitting an application, the requirements of these systems must be discussed with the EEC.

5.4.2 ESERA Requirements for Solar PV-Embedded Generation

Any person or entity installing a solar PV-embedded generation system that is above 100 kW for self-consumption is required to register the system and obtain a generation licence from ESERA. Furthermore, an embedded generation system that is below 100 kW and installed for commercial or industrial purposes must also obtain a generation licence from ESERA. An embedded licence costs SZL 10,000.00, renewable after two (2) years. The ESERA licences system owners. Installers or system developers must submit their designs to be approved by ESERA. Embedded generation systems that are less than 100 kW are not required to obtain a licence. However, they are encouraged to register their systems using ESERA. Exemptions are issued for a period of 2 years. The ESERA conducts site inspections for installation. The regulator expects that solar PV-embedded generation systems will be commissioned by qualified people with specialised skills in the specified field.[89]

5.5 Challenges for Project Developers in Eswatini

Solar PV developers in Eswatini highlighted numerous challenges. Table 9 summarises the main challenges raised during stakeholder engagement and highlights what is being or should be done to address the challenges. Collaboration between the government, regulators, industry stakeholders, and financial institutions is important for overcoming these challenges and promoting the use of renewable energy technologies.

88 EEC, 2021, Requirements for Embedded Generation Systems, https://www.eec.co.sz/electricity/production/eg/docs/Requirements_For_Embedded_Generation_Systems_EEC.pdf

89 Key Informant Interview

TABLE 9: CHALLENGES FOR PROJECT DEVELOPERS IN ESWATINI

Barrier/Challenge	Description	What is being done or should be done
Inability to sell excess power	Lack of embedded generation feed-in-tariffs discourages solar PV uptake.	The SSEG Framework adopts a net-billing approach, and the EEC is working on the tariff for approval by the ESERA.
Lack of solar equipment standards	Solar PV equipment is not regulated, resulting in the importation of sub-standard equipment.	ESERA has completed the development of solar PV equipment and installation standards, currently awaiting final gazetting to mark completeness of the process.
Lack of solar PV accreditation for technicians/electricians	Lack of solar PV accreditation for technicians/electricians leads to reliance on unqualified "briefcase consultants" which then contributes to poor quality installations.	Solar PV Installer Accreditation Programme is under development by ESERA, planned to be completed by December 2024. Introduce or integrate solar PV installation courses in training institutions.
Limited financing	Financing institutions are concerned about the quality of solar equipment and quality of installations. They also do not have the capacity and technical expertise to develop and implement solar financing packages for the different market segments.	Get.transform together with Business Eswatini are implementing a series of training programmes for financial institutions on how they can assess and process funding applications for solar PV installations.

6. FINANCING SSEG PROJECTS IN ESWATINI

6.1 Financing Options/Sources

The high upfront costs associated with solar PV systems present a significant barrier to their wider deployment. In Eswatini, several installers operate on a cash-upfront model in which customers pay the full cost of the solar PV system installation upfront. While this option may be feasible for some commercial and industrial consumers, it is generally inaccessible to a larger proportion of residential customers, who typically have limited financial resources. To accommodate the needs of the residential segment, some system developers have introduced flexible payment options such as instalment plans or lay-by options. These allow customers to pay for the system in smaller, more manageable instalments over a period of 6 months or longer.[90] For commercial and industrial consumers, innovative financing structures have enabled the acquisition of larger-scale solar PV systems without substantial upfront investments.[91]

Beyond offerings from system developers, customers are encouraged to explore financing options through financial institutions. In some cases, access to grant funding has also facilitated the deployment of solar PV systems.[92] Despite these available financing options, challenges remain in ensuring widespread access to affordable solar PV solutions. System developers often cannot offer flexible payment plans, and there is a need for greater financial support mechanisms to promote the adoption of SSEG technologies in Eswatini.

90 Key Informant Interview with Langa Energy

91 Key Informant Interview with OK Foods Group Eswatini.

92 Key Informant Interview with Baylor Clinic.

6.2 Banking Sector Overview

Eswatini's financial sector, though relatively small, is diversified and developed, with the banking sector accounting for approximately 30% of the country's GDP in 2022.[93] The sector is dominated by non-bank financial institutions, which account for 78% of financial sector assets or 116% of GDP, including pensions, insurance, and collective investment schemes (see Table 10).[94] The banking system comprises the Central Bank of Eswatini, four commercial banks (First National Bank of Eswatini, Nedbank Eswatini, Standard Bank Eswatini, and state-owned Eswatini Bank), three credit institutions, and one building society.

Five banks are authorised dealers of the Swazi Lilangeni, with the Swaziland Building Society having limited authority. The Central Bank serves as the primary regulatory financial authority, aiming to create an environment conducive to economic growth by working with other institutions to prevent money laundering, monitor the sector, and promote monetary stability.

NBFIs are regulated by the Financial Services Regulatory Authority (FSRA), which oversees credit and savings institutions, insurance and retirement funds, and capital market developments. Despite its small size relative to that of the overall economy, this regulatory structure contributes to the sector's stability and development.

93 Eswatini (Swaziland) Banking Industry Overview (Oct 2022): https://gcrratings.com/publication/eswatini-swaziland-banking-industry-overview-oct-2022/

94 Kingdom of Eswatini: Technical Assistance Report-Financial Sector Stability Review: https://www.elibrary.imf.org/downloadpdf/view/journals/019/2024/030/article-A001-en.pdf

TABLE 10: REGISTERED FINANCIAL INSTITUTIONS

Financial Sector Segment	Type of Licensed Entity	Number of Licensed Entities	Market Share
Commercial banks, licensed by the CBE		**5**	
	- Government owned - South African bank subsidiaries - Farmers Bank (Pty) Ltd	1 3 1	10% 35%, 30%, and 25%
NBFIs and supporting entities, licensed by the FSRA		**511**	
Credit and Savings Institutions	Savings and Credit Cooperatives (SACCOs) - Building Societies (BSs) - Other nonbank credit institutions (CIs) - Debt counsellors	62 2 135 1	90% by 10 SACCOs 93.7% and 6,3% 80% by 2 CIs
Insurance	- Short-term insurers - Long-term insurers - Composite insurers - Reinsurance firms - Insurance brokers - Micro-insurers - Medical Schemes - Corporate agents - Individual agents	6 7 1 2 34 2 3 35 107	90% by top insurer 58% by 2 insurers
Retirement Funds	- Local retirement funds - Standalone funds - Umbrella funds - Beneficiary funds - Foreign retirement funds - Fund administrators	40 14 3 20 8	84% by 4 statutory funds 8% by 12 funds 6% by 12 funds
Capital Markets Intermediaries (CMIs)	- Investment advisors - Collective investment scheme managers - Securities brokers - Trustees - Exempt dealers	12 5 1 3 1	43% by top advisor 88% by 2 managers
Financial Markets Infrastructures (FMIs)		**6**	
Under CBE	- RTGS (SWIPSS) - Swaziland Automated Electronic Clearing House (SAECH) Central Securities Depository	1 1 1	
Under FSRA	- Credit Bureau - Stock Exchange	2 1	

Source: IMF[95]

95 Kingdom of Eswatini: Technical Assistance Report-Financial Sector Stability Review: https://www.elibrary.imf.org/downloadpdf/view/journals/019/2024/030/article-A001-en.pdf

6.2.1 Banking Sector's Experience with Renewable Energy

Several trends and practices emerged while conducting key informant interviews with a diverse range of financial institutions.

- There is interest in renewable energy investments among financial institutions in Eswatini. This trend signifies a positive shift towards sustainable and eco-friendly investment practices, reflecting the global movement towards green energy.
- Several of these financial institutions have already begun to fund solar projects. This funding is typically facilitated through vehicle and asset financing, as well as short-term working capital, also known as order financing. These financial arrangements are typically executed through tripartite agreements between the client, bank, and Engineering, Procurement, and Construction (EPC) firms. This collaborative approach ensures a streamlined process and shared accountability.
- The cost of funds for these projects is covered under the same terms, which typically ranges from the prime rate plus 3% to the prime rate plus 7%. However, the final terms are contingent upon the client's risk profile, ensuring a tailored approach for each individual or entity.
- Financial institutions prefer to work with PV GreenCard-accredited EPC firms. This preference underscores the commitment of these institutions to ensure that their clients receive high-quality installations. Partnering with accredited firms can guarantee the delivery of reliable and efficient renewable energy solutions.

6.3 International Financing Opportunities

Local entrepreneurs and early-stage project developers can access 240+ financing instruments (i.e., grant, debt, and equity) for renewable energy investments via **Funding Database - GET.invest (get-invest.eu).** The database contains funding tickets with sizes ranging from EUR 100,000 to EUR 10 million (approximately SZL 1.9 million to SZL 196 million). The GET.invest funding database will help project developers to navigate the complex landscape of funding sources by filtering for what they need, learn about the eligibility criteria and documents required to apply, and compare the various financing offers.

Development Innovation Ventures

Development Innovation Ventures (DIV) provides grant funding to innovators and researchers across the world to test new ideas, take strategic risks, build evidence of what works and advance the best solutions in various sectors, including renewable energy. DIV provides funding in three tiered stages, a pilot stage (up to $200,00), a test and position for scale stage (up to $1,5 million) and a transition to scale stage (up to $15 million). The fund also provides evidence generation grants of up to $1,5 million.

Clean Energy and Energy Inclusion for Africa Foundation (CEI Africa)

The crowdlending window of CEI Africa offers senior and junior debt, mezzanine debt and technical assistance to green mini-grid developers, in Sierra Leone, Benin, Mali, Madagascar, Kenya, DRC. It also targets solar home system, commercial and industrial (C&I) off-grid system, e-mobility and solar-powered productive use (PUE) appliance companies across sub-Saharan Africa.

Energy Entrepreneurs Growth Fund (EEGF)

Energy Entrepreneurs Growth Fund (EEGF) is an investment fund providing tailored mezzanine, equity, and debt investments combined with technical assistance to early and growth-stage companies in the access to energy ecosystem in Sub-Saharan Africa. Ticket sizes per transaction range from EUR 1 million to EUR 10 million.

Special requirements pertaining to gender, diversity, and local content include:

51% women ownership or the business is founded by a woman; 30% of senior leadership are women or 30% of the board or investment committee are women; 30-50% of the applicant's workforce are women (depending on sector), with quality employment conditions in place; applicant's product(s) or service(s) specifically or disproportionately benefit women.

EDFI Electrification Financing Initiative (ElectriFI)

The Electrification Financing Initiative (ElectriFI) is an EU-funded specialist blended financing facility for renewable energy companies active in on-and-off-grid emerging markets. ElectrFi provides senior, junior and mezzanine debt to companies across emerging markets in Africa, Asia and the Pacific. Ticket sizes per transaction ranges from EUR 1 million to EUR million.

Chroma Impact Investment

Chroma Impact Investment provides debt financing to companies and projects in Africa and Europe that offer products and services in support of energy transitions. Chroma Impact invests in stand-alone solar, energy for productive use and off-grid energy services. Ticket sizes per transaction ranges from EUR 100,000.00 to EUR 3 million.

Blue Haven Ventures

Blue Haven Ventures provides debt financing to early-stage businesses offering goods and services to underserved communities in Sub-Saharan Africa. Blue Haven Ventures targets sustainable and scalable businesses operating in the areas of climate change, fintech, logistics and healthcare. Ticket sizes per transaction ranges from EUR 100,000.00 to EUR 10 million.

Business Development Support Fund (BDSF)

The Business Development Support Fund (BDSF) offers grants, co-finances technical assistance and feasibility studies and provides investment support to innovative small and medium-sized enterprises.

The BDSF targets the fields of renewable energy, climate change, agriculture/agri-business or digitisation/digitalisation. Ticket sizes per transaction ranges from EUR 100,000.00 to EUR 500,000.00. Special requirements pertaining to gender, diversity, and local content include:

51% women ownership or the business is founded by a woman; 30% of senior leadership are women or 30% of the board or investment committee are women; 30-50% of the applicant's workforce are women (depending on sector), with quality employment conditions in place; applicant's product(s) or service(s) specifically or disproportionately benefit women.

ANNEX 1: SSEGS REGISTERED WITH ESERA BY THE END OF 2023

NAME OF SSEG OWNER	SECTOR	SSEG TECHNOLOGY	LICENSED CAPACITY (MW)	OPERATIONAL CAPACITY (MW)
Elangeni Poultry Processors (PTY) LTD	Manufacturing	Solar PV	1	1
SAWCO	Agriculture	Solar PV	0.632	0.632
Elangeni Chicks (PTY) LTD	Agriculture	Solar PV	1	1
Crookes Plantations	Agriculture	Solar PV	1.37	1.37
United Plantations (Tambuti)	Agriculture	Solar PV	3	1.5
United Plantations (Ngonini Estates)	Agriculture	Solar PV	0.66	0.66
United Plantations (Ngonini Estates)	Agriculture	Hydro	0.53	0.53
Logico Unlimited	Sales and Distribution	Solar PV	0.48	0.33
Canterbury Estates	Agriculture	Solar PV	0.3	0.3
Heart for Africa	NGO	Solar PV	0.33	0.23
Swaziland Milling	Manufacturing	Solar PV	0.35	0.35
Linac Investments	Retail	Solar PV	0.18	0.18
Ngwenya Glass	Manufacturing	Solar PV	0.16	0.16
Southern Trading	Sales and Distribution	Solar PV	0.27	0.27
The Luke Commission	NGO	Solar PV	1	0.4
Africa Chicks	Agriculture	Solar PV	0.12	0.12
Linkengane Investment (Village Baker)	Manufacturing	Solar PV	0.24	0.24
Trencor Investments	Agriculture	Solar PV	0.23	0.23
Tambankulu Estates Limited	Agriculture	Solar PV	2	2
Nisela Farms	Agriculture	Solar PV	0.62	0.62
United Nations Development Programme	NGO	Solar PV	0.12	0.12
Calamuva Farmers	Agriculture	Solar PV	0.27	0.27
Eswatini Plantations	Agriculture	Solar PV	1	0
Eswatini Plantations	Agriculture	Hydro	0.8	0.8
Dyson & Lincoln	Agriculture	Solar PV	0.12	0.12
Nhlangano Healthcare Centre	Health	Solar PV	0.16	0.16
Hlathikhulu Government Hospital	Health	Solar PV	0.16	0.16
Palfridge	Manufacturing	Solar PV	1	1
RFM Hospital	Health	Solar PV	1	1
Others			2.178	
TOTAL INSTALLED CAPACITY			**21.28**	**15.752**

ANNEX 2: REQUIREMENTS TO START A BUSINESS IN ESWATINI

Company Registration[96]	Work Permit[97]	Trading Licence[98]	Visa Application
Name reservation – give three (3) proposed names	Application Letter from Company addressed to the "Chief Immigration Officer, Ministry of Home Affairs, P.O. Box 372, Mbabane"	Fill in trading licence application form[99]	Fill in visa application form[100]
Objects of company	Application Form. The work permit application form can be obtained from EIPA or from the Immigration Department	Lease agreement or title deed for premises to operate in	Passport containing at least two (2) unused pages for entry/departure endorsements
Physical and postal address of company	Medical Certificate. A copy of the medical certificate is attached to the permit application form	Company formation documents certified by the registrar of companies (Memorandum and Articles of Association, Form J and Certificate of Incorporation)	Payment of prescribed fee (if applicable)
Shareholding structure	Police Clearance. An original copy must be obtained from the country of passport, and it must be less than six months old	Bank statement	Signed statement and/or documentation confirming purpose and duration of visit
Certified passport copies of company directors	Two (2) coloured passport-size photos	Director's work permit and certified copy of passport	Two (2) identity photographs
Certified passport copies of company shareholders	Certified copy of passport		Bank statements
Relevant government fees for registration will be required	Form J (Register of Directors) and Form C (Authorised Share Capital)		E-mail to EIPA detailing purpose of visit, entry point, date of entry, and the duration of stay
	Certificate of Incorporation		
	Memorandum and Articles of Association		
	Lease Agreement		

Sources: EIPA[101] , MoHA, MCTI

96 Note: Companies, directors, shareholders and affiliated companies will be subjected to a vetting process.

97 Note: EIPA facilitates 5-year work permits for company Directors and 2-year work permits for expatriates.

98 Note: Costs associated with the application for the trading licence will be communicated by EIPA.

99 Trading licence form is accessible via https://www.gov.sz/images/stories/commerce/trading%20licences%20order.pdf

100 Visa application form is accessible via https://www.gov.sz/images/visa.pdf

101 https://investeswatini.org.sz/start-a-business/

ANNEX 3: TAX INCENTIVES

Incentive	Description
Reduced Corporate Tax	A 10% reduction of corporate tax for 10 years to both local and foreign investments in manufacturing, mining, international services, and tourism. A company eligible for this concession may also be provided with an exemption from withholding taxes on dividends during the same 10-year period.
Accelerated Capital Allowances	**Hotel construction and improvement allowance**: 50% of the cost is deductible in the year in which it is incurred on the construction of a new hotel or beneficial improvements to an existing hotel. In addition, an annual allowance of 4% of such expenditure is allowed.
	Buildings (and improvements thereto) used to house manufacturing plant and machinery: 40% initial allowance in the first year of use and an additional 4% allowance.
	Employee housing allowance: 20% in the first year and 10% per annum for the next 8 years.
	Farming: Certain capital expenditure is tax-deductible, but the total deduction in any year of assessment is limited to 30% of the gross income derived by the farmer from farming operations. Any amount disallowed is carried forward and added to expenditure in the succeeding year.
Unlimited Provision for Losses	Losses may be carried forward indefinitely.
Duty-Free Access on Capital Goods	There is duty-free access to capital goods imported as intermediate goods (to be used as inputs for final products).
Duty Free Access on Raw Materials	There is duty-free access to raw materials used to produce goods exported outside the Southern Africa Customs Union (SACU).
Full Repatriation of Profits and Dividends	There is full repatriation of profits and dividends in any currency without permission and without limitation after payment of income taxes. Repatriation is also allowed for capital repayments and salaries of expatriates after payment of income taxes.
Employee Training Allowance	There is employee training allowance of 100% of the cost to be offset against tax liabilities.
Double Taxation Agreements	There are double taxation agreements offering relief for taxes paid abroad on income also subject to Swazi taxation.
Special Economic Zones Benefits	Exemption from corporate tax for the first 20 years; thereafter, a corporate tax shall be charged at a rate of 5%.
	Reductions of customs duty, value added tax and any other tax payable on raw materials, equipment and machinery.
	Exemption from foreign exchange control or restrictions for activities conducted in a SEZ.
	Entitled to green technology allowance. This refers to the use of technology and science to preserve the environment. All companies that wish to set up shop in the SEZ must be high-tech and science based in their operations. To operate within an SEZ, a beneficiary company must meet the following minimum requirements (among others): at least 90% of its employees must be paid at or above the threshold for income taxation; at least two-thirds (2/3) of its employees must be Swati citizens; and the minimum capital investment must be E30 million for sole companies and not less than E70 million for joint ventures.

For more information, visit **EIPA Website**

ANNEX 4: NON-TAX INCENTIVES[103]

Incentive	Description
Export Credit Guarantee Scheme	There is an export guarantee scheme through which the Central Bank of Eswatini provides an Export Loan Guarantee scheme and a Small-Scale Loan Guarantee scheme, which grants guarantees to loans provided by commercial banks.
Legal Protection of Investments	Provisions of legal protection of investments from undue expropriation under the Swaziland Investment Promotion Act of 1998 and the Constitution of Eswatini. In addition, Eswatini is a member of Multilateral Investment Guarantee Agency of the World Bank, which provides added legal protection of foreign investments of member countries from expropriation.
Five (5) Year Work and Residence Permits	Provision of five (5) year work and residence permits for expatriate directors, senior management and key technical personnel of new enterprises.
Subsidised Rental on Government Factory Shells	There are subsidised rentals on Government Factory Shells at rates dependent upon their location.

103 https://www.state.gov/reports/2023-investment-climate-statements/eswatini/

ANNEX 5: ACTIVE DEVELOPMENT CO-OPERATION

This Annex provides a non-exhaustive list of stakeholders selected according to their relevance to the subject of this guide.

- **Republic of China (Taiwan):** Supports the Rural Electrification Project.
  More information can be found here: https://www.taiwanembassy.org/sz_en/index.html

- **The World Bank:** Supports the Rural Electrification Project and EEC Network Reinforcements and Access Project.
  More information can be found here: https://www.eec.co.sz/electricity/projects/nrap/

- **Global Environment Facility (GEF):** Supports the Africa Mini-Grid Programme in Eswatin to improve electricity access to remote rural communities.
  More information can be found here: https://www.undp.org/eswatini/press-releases/minigrids-light-rural-communities

- **United Nations Development Programme (UNDP):** Leads the implementation of the Africa Mini-Grid Programme in Eswatini.
  More information can be found here: https://www.undp.org/eswatini/press-releases/minigrids-light-rural-communities
- **African Development Bank:** Provided technical assistance to the Government of Eswatini in the following areas: i) undertaking a pre-feasibility study of a potential cascading hydropower scheme on the Ngwempisi River; ii) review and analysis of solar and wind resource data and capacity building; and iii) review and update of the National Energy Policy and the National Energy Policy Implementation Strategy.
  More information can be found here: Technical Assistance Report.

- **European Union (EU):** Provides support through the GET.transform programme in energy sector reform in terms of long-term energy planning, renewable energy grid integration, on-grid regulation, and market development.
  More information can be found here Get.transform Eswatini.

ANNEX 6: CONTACT INFORMATION OF RELEVANT INSTITUTIONS

- **Eswatini Energy Regulatory Authority (ESERA)**
  Contacts: +268 2404 2103
  E-mail: info@esera.org.sz
  Address:
  First Floor RHUS Office Park
  Karl Grant Street
  Mbabane, Eswatini
  Website: Eswatini Energy Regulatory Authority (ESERA)

- **Eswatini Electricity Company (EEC)**
  Contacts: +268 2409 4000
  E-mail: info@eec.co.sz
  Address:
  Eluvatsini House,
  Mhlambanyatsi Road
  Mbabane
  PO Box 258
  Mbabane, Eswatini
  Website: Eswatini Electricity Company (EEC)

- **Business Eswatini (BE)**
  Contacts: +268 2404 7631/ 7699 5985
  Email: info@business-eswatini.co.sz
  Address:
  Malagwane Hill,
  P. O. Box 72,
  Mbabane H100
  Website: https://business-eswatini.co.sz/

- **Ministry of Commerce Industry and Trade (MCIT)**
  Contacts: +268 2404 3201/6
  P. O. Box 451
  Mbabane, Eswatini
  Website: https://www.gov.sz/index.php/about-us-sp-1331002038

- **Renewable Energy Association of Eswatini (REAESWA)**
  Phone: +268 7621 4394
  E-mail: reaeswa016@gmail.com
  Website: Renewable Energy Association of Eswatini (REAESWA)

- **Ministry of Home Affairs (MoHA)**
  Contacts: +268 2404 2941/2404 5880/2
  Address:
  Mhlambanyatsi Usuthu Link Road
  P.O. Box 432
  Mbabane, Eswatini

- **Eswatini Revenue Service (ERS)**
  Contacts: +268 24064050/24064000
  E-mail: info@ers.org.sz
  Website: https://www.ers.org.sz/index.php

- **Eswatini Investment Promotion Authority (EIPA)**
  Contacts: +268 24040470/2/3/4
  E-mail: info@sipa.org.sz
  Address:
  1st Floor, Building 1
  Sibekelo Building
  Mhlambanyatsi Road
  P.O. Box 4194
  Mbabane, Eswatini
  Website: https://investeswatini.org.sz/

- **Ministry of Natural Resources and Energy**
  Contacts: +268 24046244/24041231
  Address:
  P.O. Box 57
  Mbabane, Eswatini
  Website: https://www.gov.sz/index.php/home-natural-resource

- **Eswatini National Provident Fund (ENPF)**
  Contacts: +268 25082000
  Address:
  Lidlelantfongeni Building Corner
  Martin & Ngwane Street
  Website: https://enpf.co.sz/

- **Get.tranform Eswatini**
  Contact Person: Ferdinand Nell – Country Window Coordinator
  Contacts: +27 82 453 3201
  E-mail: ferdinand.nell@giz.de
  Website: https://www.get-invest.eu/about/country-windows/eswatini/

- **UNDP Eswatini**
  Contacts: +268 2409 6600/1
  Address:
  P.O. Box 261, Mbabane
  Kingdom of Eswatini, H100
  UN House, Somhlolo Road, Mbabane, Kingdom of Eswatini
  E-mail: registry.sz@undp.org
  Website: https://www.undp.org/eswatini

- **Republic of China (Taiwan)**
  Contacts: +268 2404 4740/2404 4741
  Address: Makhosikhosi Street, Mbabane, Kingdom of Eswatini
  E-mail: rocszembassy@mofa.gov.tw
  Website: https://www.taiwanembassy.org/sz_en/index.html

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http://new.observer.org.sz/details.php?id=10447

https://africa-energy-portal.org/eri/country/eswatini

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