

# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



Foreword by Resident Coordinator 6 UN Country Team 8 Development Partners 10 Chapter One: Key Developments In The Country And Regional Context 12 Chapter Two: Support To National Priorities 16 2.1 Overview of Cooperation Framework Results 18 2.2 Cooperation Framework Priorities, Outcomes and Outputs 20 2.3 Support to Partnerships and Financing the 2030 ???



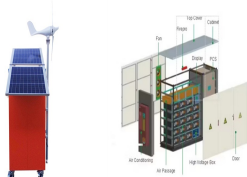
Monitoring and Evaluation Digital transformation Partnerships & Communication Enablers 8.5: Creation of Decent Jobs 6.2 Improved Sanitation 5.5: Women in Leadership SDG Targets Public Services Agriculture Systems Education Systems Accelerators Social Protection Industry Health Systems Environment Theory of Change Energy Strengthening capacities



Building National System of Social Protection Statistics in Eswatini. emphasizing the role of monitoring systems in shaping national strategies on social protection. 8 December 2023. Facebook X with a specific focus on Sustainable Development Goal 1.3. This goal emphasizes the critical role of monitoring and evaluation systems in



The theme of the dialogue is "Eswatini Farmers Contributing to Sustainable Food Systems". The economy of Eswatini is agriculture driven since 75% of the population resides in rural areas and rely on agriculture for their livelihood. This means that the majority of the population of Eswatini is composed of smallholder farmers. Sadly, the high rates of poverty ???



Weather and climate monitoring to improve early warning systems and climate services Location The Kingdom of eSwatini Products Used WINDSONIC1-L, CMP10-L, HMP155A-L, TB4-L, SoilVUE10 This project aligns with eSwatini's sustainable development goals by supporting sustainable agricultural practices, water resource management, and

# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



This programme is a partnership between the University of Eswatini's Centre for Sustainable Energy Research (CSER) and UNDP. It equips unemployed young people from diverse backgrounds with basic skills in Solar PV Systems, solar dehydrators, biogas digesters and entrepreneurship. Under this partnership, 60 youth have been trained in the last



This will support countries to transition to sustainable energy systems by working to de-risk the investment environment; attract and leverage private and public-sector resources. In contexts, where energy does not yet reach Energy sector overview eSwatini is heavily dependent on solid fuels (biomass sources such as wood, bagasse - a by



The performance of most smallholder sugarcane growers in Eswatini has been underwhelming and this has been largely attributed to inefficient irrigation systems. As such, the Government of Eswatini has made huge irrigation investments towards smallholder farming with the intention of advancing access to water and consequently, improve irrigation efficiency. ???

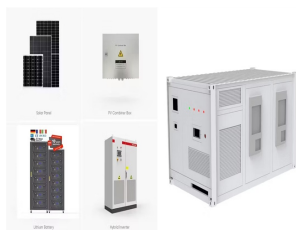


1. Accelerating the transition to renewable energy. Eswatini is investing in renewable energy infrastructure and financing for new installations. Governmental initiatives, alongside private sector investments, are focusing on harnessing Eswatini's abundant ???



Sustainable Development: This project aligns with eSwatini's sustainable development goals by supporting sustainable agricultural practices, water resource management, and environmental conservation. This, in turn, contributes to food security, poverty alleviation, and the preservation of eSwatini's natural resources.

# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



The team has also been on hand to provide training for the Eswatini technicians on monitoring energy use as part of local capacity building for sustainable operation and maintenance. We are now working together to undertake energy audits in 20 additional healthcare facilities as part of the RFM scale up and replication strategy ."



Siemens said in the age of renewable energy, long-term planning was crucial for the transformation of the Kingdom of Eswatini's energy systems and its access to sustainable energy growth. According to the country's energy Master Plan 2034, a major challenge facing the country's energy system is a lack of security in energy supply.



Eswatini's is heavily dependent on South Africa and Mozambique for energy supplies, importing 80% of its electricity. Yet, as South African production facilities close, there will be a drop in liquefied petroleum gas. Since 71% of Eswatini's land is agricultural, and feedstock for digestion is readily available, biogas could bridge the gap.



CSER Centre for Sustainable Energy Research ESWADE Eswatini Water and Agricultural Development Enterprise INDC Intended Nationally Determined Contribution systems by 2030. Table 1 present indicators that are useful in tracking progress towards the implementation and achievement of the NDC to meet the 2030 targets, especially monitoring



Government will focus on a few priorities through a sustainable, and integrated approach. His Majesty's Government is committed to pursuing an Economic Transformation Strategy focused on fostering sustainable economic growth, eradicating poverty, strengthening our health systems, and ensuring transparency and accountability in governance.

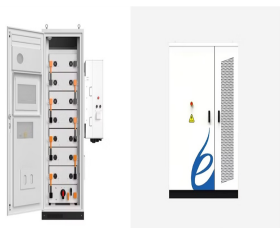
# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



policies, plans, systems and financing incorporate integrated and gender-responsive solutions to reduce disaster risks and enable climate change adaptation and mitigation; and (c) solutions for universal access to clean, affordable and sustainable energy 14. Past UNDP successes in supporting climate-smart agriculture will be scaled-up in



developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by ???



Eswatini is committed to 2030 Agenda and Africa's Agenda 2063 implementation. It acknowledges the importance of achieving development goals contained in these agendas. monitoring mechanisms, energy efficient technologies, climate smart capacity. 3.3 Human Capital development: SDGs 3, 4 Sustainable skills development is essential for



As the globe shifts to cleaner energy, Eswatini faces economic losses if it does not invest in renewables. This is according to the policy brief that was released by the United Nations Development Programme (UNDP) Eswatini, examining the complex interplay of factors ???



public solutions that increase energy access and delivery. In contexts where energy is already available to most or all people, the focus will be on transitioning to renewable energy and energy efficiency measures and policies. UNCDF offers "last mile" finance models that unlock public ???

# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



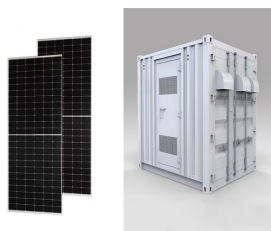
THE NATIONAL MONITORING AND EVALUATION SYSTEM The System has been developed to manage the implementation of government policies, programmes and projects. Both the monitoring and evaluation of progress of each is essential for efficient and effective delivery.



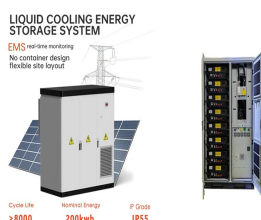
At the same time, the energy monitoring system can also monitor and report changing trends in energy use, provide data support, and help users optimize energy use plans and predict future energy needs. Energy ???



Renewable energy resources can help reduce Swaziland's dependence on imported electricity. Bagasse co-generation, for instance, a by-product of the sugar industry, could meet about half of electricity demand in a sustainable way, while solar power also offers enormous potential for ???



and ICT; mining and energy; tourism; manufacturing, agro-processing and agriculture. The Government of Eswatini and the United Nations Development System in Eswatini will coordinate closely and in partnership during the implementation, the monitoring and the evaluation of the 2021-2025 UNSDCF. The Ministry United Nations Sustainable Development



The policy brief presents a road plan for the Kingdom's Just Energy Transition. It seeks to link growth and development with Eswatini's Nationally Determined Contributions (NDC) pledge to generate 50% of its energy from renewable sources by 2030, as well as COP28's goal of transitioning from fossil fuels to renewable energy by 2048.

# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



In its Energy Masterplan 2034, the Kingdom of Eswatini has identified renewable energy as the driving force of the country's energy transformation) and sustainable energy as a priority area for support to the development results for the Kingdom. The key challenge facing the country's energy system is a lack of security of supply.



Eswatini's first Nationally Determined Contribution (NDC), submitted in 2015, sets targets to: (i) increase the share of renewable energy in the national energy mix by 50% by 2030 compared to 2010 levels, (ii) reach a 10% level of commercial use of ethanol-blended petrol by 2030 and (iii) phase out HFCs, PFCs and SF6 gases by developing the value chain for alternative gases.



1 ? The meetings took place in Mvundla and Bulimeni, communities where AMP Eswatini's first pilot project is located and where the second pilot is soon to be installed, respectively. The community visits align with the AMP's commitment to applying sound environmental ???



Eswatini Investment Case for Sustainable Energy in Health and Education Facilities It also delves into the sizing of renewable energy systems, the financial aspects involved, the potential impact on fuel consumption and ???



This approach maximizes the core benefits of BESS, supporting a reliable and sustainable energy system. Transformative Megatrends Advancing Green Energy Policies: Supportive policies such as the European Union Green Deal and the U.S. Inflation Reduction Act are essential for boosting BESS adoption, as they promote green energy and renewable sources.



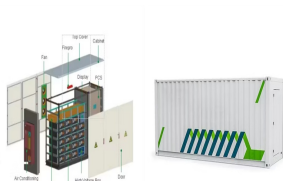
# ESWATINI SUSTAINABLE ENERGY MONITORING SYSTEM



Goal 7 Targets. 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services. 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. 7.3 By 2030, double the global rate of improvement in energy efficiency. 7.A By 2030, enhance international cooperation to facilitate access to clean energy research and ???



??? To strive to provide all households with access to modern energy by 2030. ??? To develop 40 MW Solar PV and 40 MW Biomass project by 2024 ??? To ensure energy security by 2026 (baseload generation capacity)



By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to ???



The Kingdom of Eswatini has about 4,500 million cubic meters of available fresh water resources of which the country harnesses and stores only 744 million cubic meters or 17 per cent. the country has observed a serious decline in the ???



It aims to align growth and development with Eswatini's NDC commitment to generate 50% of energy from renewable sources by 2030 and COP 28 goals to shift from fossil fuels to green energy by 2048. In Eswatini, access to electricity stands at 85%, with a current ???