



National Renewable Energy Platform

STRATEGIC PLAN

2023 - 2028





FOREWORD



Uganda is challenged with an urgent need to confront climate change, while harnessing the lucrative socioeconomic and environment benefits occasioned by a transition to a clean energy economy. The country has laid a firm imperative for an integrated, low-carbon and clean energy

economy as the driver of growth and development. The Ministry of Energy and Mineral Development (MEMD) is at the centre of this drive, as mandated to lead and promote sustainable development and utilization of energy and mineral resources for Ugandans.

The MEMD supports prudent development, deployment, and efficient use of all energy resources that also create new jobs and industries. The Ministry leads efforts to help build a strong clean energy economy as the engine of growth and development, while advancing responsible exploitation oil and gas as part of an integrated energy strategy for the country. MEMD supports innovators and businesses to research, develop, and demonstrate cutting-edge

technologies and work to break down market barriers in renewable energy, and energy efficiency.

The country and her partners have supported and promoted several renewable energy and energy efficiency technologies and innovations. Progressively, there is evidence of a clear path to direct cost competitiveness clean energy resources. However, even with these successes, renewable energy and energy efficiency targeted investments are needed more now than perhaps ever before. As these technologies have advanced, market barriers have become a more significant and visible limitation to the speed of deployment. Our sense of urgency is further increased as we see the rest of the world investing billions of dollars in clean tech R&D and deployment while the impacts of climate change are becoming more apparent in our daily lives.

As MEMD, we recognize the need to bridge and build partnerships amongst RE&EE actors to build a coherent ecosystem approach to sector activities and programmes. NREP presents some nascent initiatives that have the potential to be impactful if adopted and executed as streamlined in this Strategic Plan.



Building on a strong program portfolio, and learning from its past and ongoing initiatives, NREP will strengthen sector collaboration linkages to coordinate and harmonize activities and actors to achieve policy and programmatic impact for socio-economic and environmental transformation of Uganda's citizenry.

Winning the clean energy race will ensure that we capture a significant and growing share of the clean energy market and the jobs, energy security and other opportunities that will be created along the way. This Strategic Plan is our blueprint for how we will tackle the challenges and opportunities that lie ahead for the country and how we will evaluate our success. NREP's Secretariat will lead the execution of this plan, working with internal and external partners including Ministries, Department and Agencies (MDAs), industry, universities, national and local governments, stakeholder groups, and development partners.

I hope you find this document and its contents informative and useful. At MEMD and indeed NREP

Secretariat, we are engaged in an undertaking that will not only transform our energy and economic systems, but that also has the potential to leave our nation and the world safer, stronger, and more prosperous for future generations. I know that working together, we can and will be successful.

On behalf MEMD, I am grateful for the support of the Development Partners, Private Sector and Civil Society Organization actors towards NREP activities. I count on that commitment and support as we together write the next chapter of the RE&EE in Uganda.

For God and My Country.

Hon. Dr. Ruth Nankabirwa Ssentamu
Minister of Energy & Mineral Development



ACKNOWLEDGEMENTS



Fast-tracking development and distribution of renewable energy and energy efficiency technologies is strategic as we confront new opportunities and challenges of energy transition. The Energy Transition (ET) agenda driven by climate

change, energy security, green growth, and energy poverty is global good. That plethora of ET priorities dictates a need for focused and concerted short, medium and long-term actions, and a common and harmonized vision.

NREP, with its multistakeholder approach, provides that unique, robust and inclusive framework for harmonizing and enhancing spill over opportunities for Uganda. The NREP Strategic Plan 2023-2028 spells out the actions required to meet the ET priorities. The Strategy has a clear mission fully aligned with our SDG7, NDPII, and other development agenda. The NREP membership composition gives it an inimitable capability and obligation to consider the future energy system based

on government, private, CSO and DPs' diverse priorities, abilities, and needs.

It is important that NREP's work adapts to the circumstances and responds to evolving dynamics, anticipate Stakeholders' needs and drive change on the ground. Moreover, many institutions are increasingly focused on renewables and the energy transition, so NREP's comparative advantages should be an orientation for its strategy implementation. It is critical that the Platform stays true to its goals at this critical stage, while ensuring that the entity is resilient, flexible, and fit for purpose.

Two years since its launch, NREP's contribution to the national discourse on renewable energy and energy efficiency is undeniable. NREP and her partners brought renewable energy and energy efficiency to the forefront of discussions, helped promote innovative business and financing models, and mainstreamed them in national ET. The Platform also established a holistic approach to development of the sector in the country.



It is hoped that the NREP remains focused on core mandate, demonstrate impact and strengthen activities delivery, continue to strengthen collaborations and cooperation to avoid duplication, redundancies and marginal endeavors; and enhance outreach that leads to a more visible and noticeable impact of its actions to the benefit of Uganda.

Finally, I would like to take this opportunity to offer the MEMD's sincere gratitude to all those who have contributed to the various stages of the formulation

of this Strategic Plan. We call on the continued support of the entire energy sector community and DPs to make this plan a success.

Irene Bateebe
Permanent Secretary
Ministry of Energy & Mineral Development



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SECTOR STATUS

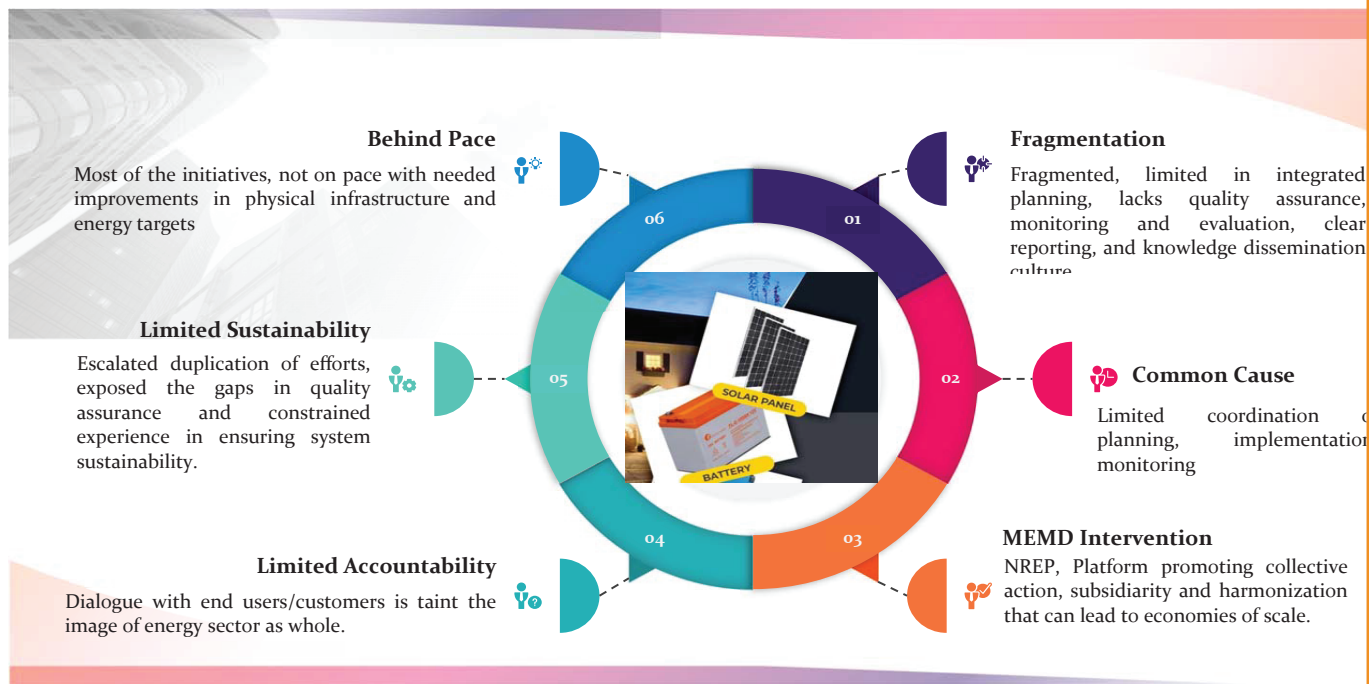


Figure 1: RE Ecosystem



NATIONAL RENEWABLE ENERGY PLATFORM

Evolution

During the 17th Energy and Minerals Week on November 24th 2021, the National Renewable Energy Platform (NREP) was established to support in coordination and consolidation of the RE&EE sector activities and actors, namely, Government (Ministries, Departments & Agencies), Development Partners, and Private Sector & Civil Society Organizations. NREP is hosted by the Renewable

Energy Department (RED) at the Ministry of Energy and Mineral Development (MEMD).

NREP addresses existing barriers and strengthen drivers for sustainable renewable energy and energy efficiency (RE&EE) markets, industries, and innovation through national methodologies and tools, and complements RED's other programmes: i) Policy and Governance; ii) Technical Assistance and; iii) Capacity, Data, and Strategy.



Figure 2: NREP's Evolution



NREP is envisioned as a hub purposed at representing, collecting and coordinating to inform policy development and strategic implementation of agreed upon actions in the renewable energy field at national level.

NREP positions itself as a “one-stop-shop” delivering sustainable and reliable energy solutions appropriate to the RE&EE sector players.

Statements

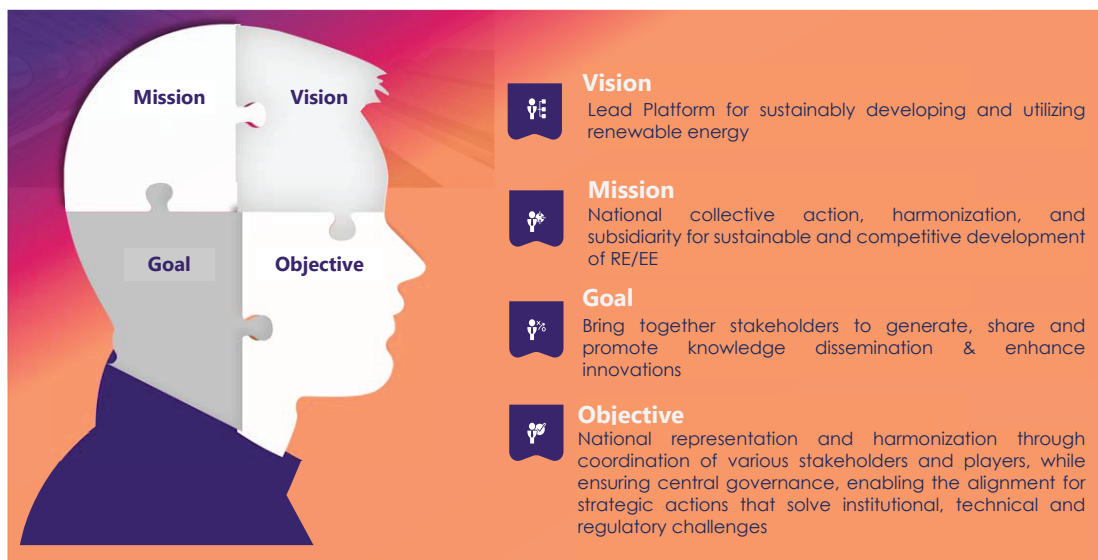


Figure 3: NREP Statements



Specific Objectives

Coordination

A1

Optimize coordination of players/stakeholders and increase access to wider partnership opportunities in the development and delivery of collective actions.

Sector Direction

A2

Shape and develop a harmonized strategic direction for the renewable energy sector

Capacity

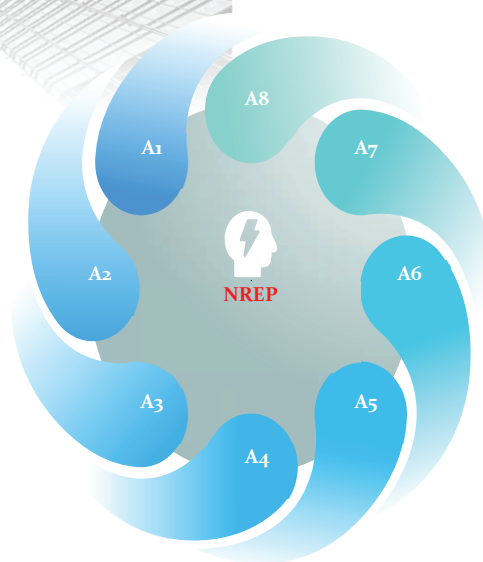
A3

Strengthen private sector and institutional capacities in the renewable energy sector

Quality Assurance

A4

Ensure quality assurance of technology implementation within the renewable energy sector



A5

Partnerships

Strengthen national and global partnership to improve access to low-cost finance for RE&EE

A6

Knowledge Hub

Improve access to pristine management of information, including funding opportunities for the renewable energy sector in Uganda and regionally

A7

R4D

Conduct scientific and research studies, develop and introduce new technologies

A8

Oversight

Ecosystem Oversight and Development

Various players in renewable energy space working towards promoting collective action, spillover, efficiency, subsidiarity and harmonization that can lead to economies of scale in the RE/EE Sub-Sector in Uganda

Figure 4: Specific Objectives



The platform will ensure national representation and harmonization of the RE&EE sector through coordination of various stakeholders and players, while ensuring central governance, enabling the

alignment for strategic actions that solve institutional, technical and regulatory challenges experienced in the sector.

Core Values

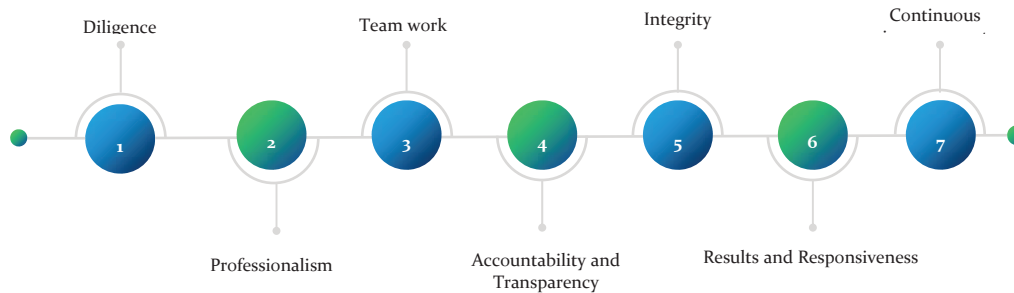


Figure 5: Core Values

Value Proposition

NREP's principles include maximizing impact, avoiding duplication, and strengthening and up-scaling of already existing local private sector capacities.

NREP positions itself as national RE&EE coordinating, promoting and facilitating platform rather than just an implementer, hence catalyzing

the establishment and fostering the future expansion of the RE&EE market and utilization in the country.

NREP aims to maximize local added value through coordination with national/regional institutions and/or existing private sector and industrial bodies (e.g., North – South and South – South technology and know-how transfer to Uganda). NREP's open membership to key



sector stakeholders at national level as well as international partnerships allow the platform access to information, data and expertise to harmonize, coordinate and consolidate Uganda's RE&EE sector.

Sector Aspirations

The structure and performance of the membership associations, communities of practice and collaboration initiatives in the renewable energy sub sector in Uganda point to the need for a more versatile system. Currently, there is a uniting umbrella organization (UNREEEA) for private sector, there are development partner platforms, and government has programmes and platforms that speak to unity.

The previous inexistence of a forum that unites these three core groups had limited the extent and status of impact of the subsector. This is due to the associated complexities, difficulties and pitfalls of information and knowledge exchange, planning and prioritization, limited subsidiarity and spillover effects, and overall duplication of efforts with limited resources. By and large, the other existing platforms of collaboration are unsystematic and inadequate, and were formed specially to deal with the diverse needs of actors in the renewable energy sub-sector.

NREP has taken the lessons and experiences from regional and global approaches like the Global Alliance for Sustainable Energy (GASE) that was recently launched to take collective action towards the full sustainability of renewable energy. GASE brings together 17 founding members including utilities and global players in the solar PV and wind value chains, sector associations and innovation partners. The Alliance is unique in scope and ambition, is open to like minded partners, from industry to civil society, academia and end-users. The IKEA Foundation and the Rockefeller Foundation in June 2021 established a \$1bn renewable energy platform to address climate change and energy poverty.

NREP domesticates the EACREE, ISA, IRENA, and other international approaches agenda by encouraging and catalysing the government of Uganda to adopt enabling policies for renewable energy investments, providing practical tools and policy advice to accelerate renewable energy deployment, and facilitate knowledge sharing and technology transfer to provide clean, sustainable energy in Uganda.

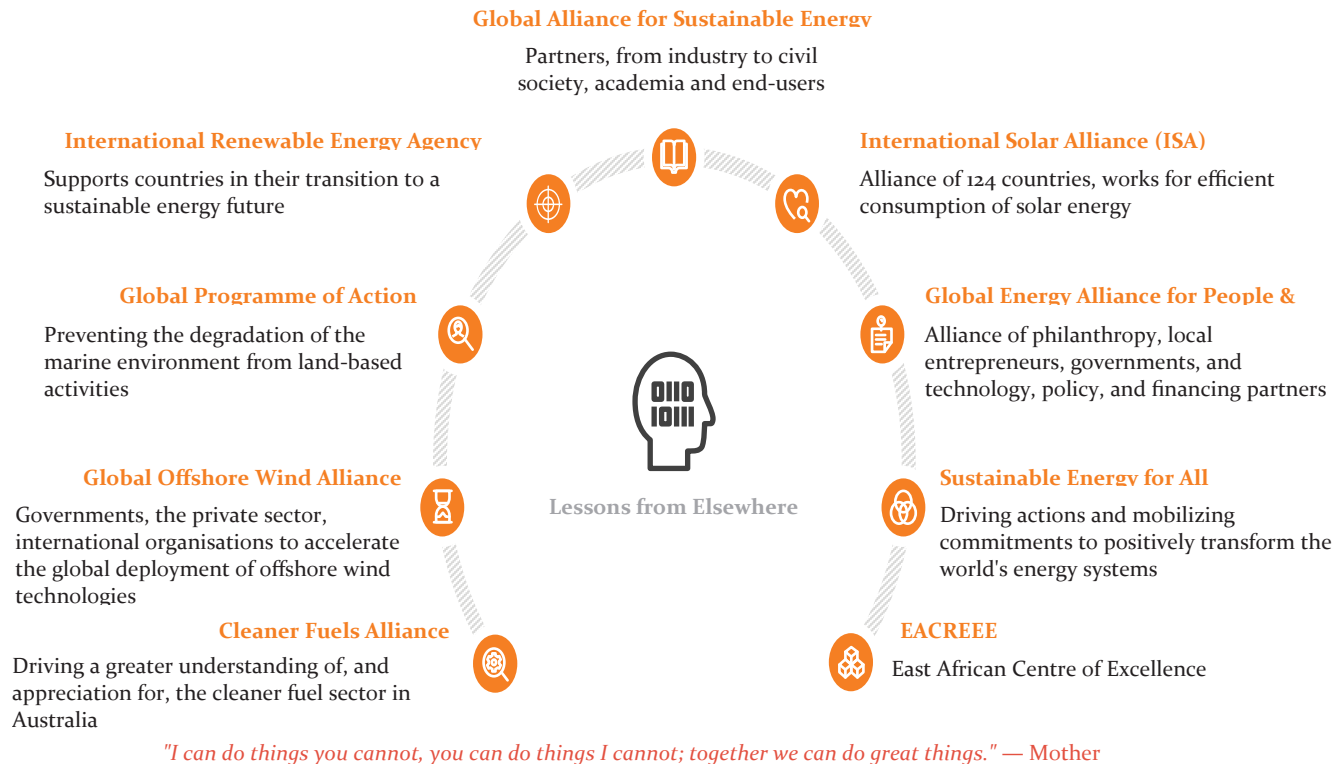


Figure 6: Proof of Concept



How NREP Works

The structure and performance of the membership associations, communities of practice and collaboration initiatives in the RE&EE sector in Uganda point to the need for a more versatile system. Currently, there is a uniting umbrella organization (UNREEEA) for the private sector, there are development partner platforms, and the government has programmes and platforms that speak to unity.

NREP is a hub where representative input from RE&EE sector players are amalgamated. This is with the purpose of representing, collecting and coordinating to inform policy development and strategic implementation of agreed upon actions in the renewable energy field at national level. NREP is aligned and supports the Clean Energy Technical Working Group (CETWG), under the Sustainable Energy Development Programme (SEDP), of the NDPIII. Membership to the CETWG is cross-institutional, and includes external partners (Development Partners and Private Sectors) to engender detailed technical dialogue on clean energy. NREP feeds directly into the CETWG discourse through an NREP representative. The CETWG undertakes detailed planning and coordination, as well as detailed monitoring of the

Programme implementation of clean energy initiatives of the SEDP.

NREP embarks on its new strategic direction determined to build on its past achievements. NREP's work is recognized as coordinating and harmonizing the RE&EE sector, drawing on its close relationship and trusted role with the government, private sector, financial institutions, academic institutions and the international donor community. NREP's ability to convene RE&EE sector stakeholders is demonstrated through the Annual Renewable Energy Conferences, workshops and other events it organizes. NREP's expertise is sought on the social, technical and economic opportunities related to RE&EE and climate change by different actors, both local and international.

NREP has taken a systematic and rigorous approach to identify gaps in action and the initiatives required to address them. NREP has reviewed the data and sought input from stakeholders to define the Results Offers that can advance the RE&EE sector. NREP is confident that the set Result Offers serve this purpose and commit to full transparency as it tracks the impact.

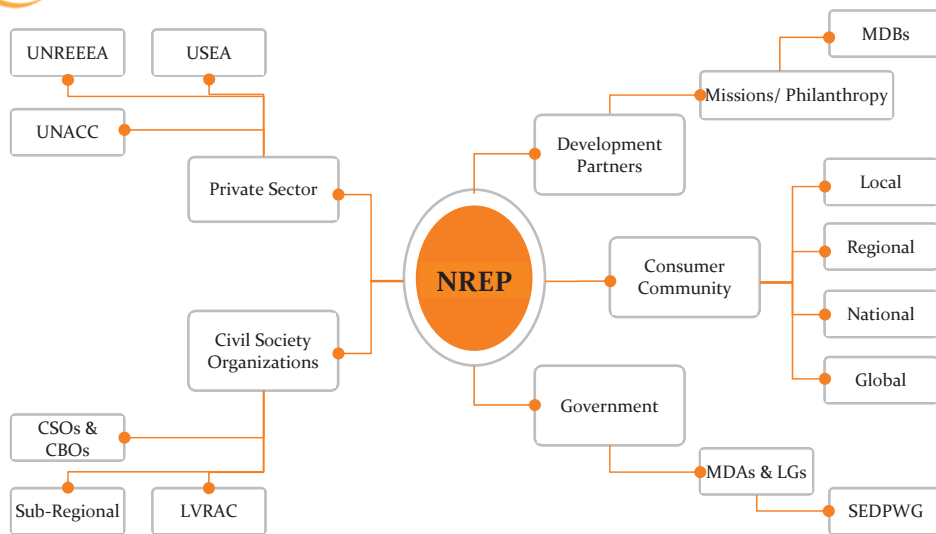


Figure 7: Operation & Strategic Fit – 1/2

Currently, the private sector is mostly organized around a technology-based approach (BEETA, UNBA, HPAU, EEAU, UNACC, WPAU and USEA). However, this approach needs to be reinforced and evolved with an external environment which is constantly changing, placing fresh demands on implementation mechanisms and structures.

Currently, there is a feeling that the RE&EE sector structures, and especially processes, are too compartmentalized in separate umbrella organizations with little inter-technology implementation or interaction, and coordination linkages with development partners and government. The current arrangements have also



encouraged a technology-led rather than a people-centered approach. Key cross-cutting areas such as Productive Use of Energy (PUE), gender mainstreaming, affordable financing, policy, knowledge management and uptake and capacity development and partnerships are fragmented with limited formal harmonization systems. Approaches and priorities have been re-thought by adopting a thematic approach to change institutional culture supported through deliberate changed management.

*In the context of NREP, a **Theme** is defined as a major opportunity or challenge facing the RE&EE sector transformation in Uganda. Under NREP, Themes are supported by discipline and technology-based sector partners, each with a Theme Coordinator who has oversight of the strategic direction. The **Theme Coordinator** is a member and reports to the NREP Executive Committee. In alignment to the key challenges, opportunities and action areas of the RE&EE sector in Uganda, five key core Themes were identified and agreed upon by stakeholders. It was further agreed upon by the stakeholders that the different RE&EE sub-sector sub-committees, networks, multi actor platforms and task-forces should be anchored to these thematic areas.*

All Umbrella membership organizations share problems and opportunities across these

Themes, hence, a need for collective action to avoid duplication of effort and resources, and urgent need to leverage resources where possible.

NREP has a Secretariat headed by a coordinator and supported by a lean but effective team. The secretariat is responsible for organizing, coordinating and implementing the platform activities. Organizational and financial decisions of the administrative staff are made by the NREP Executive Committee (EC), headed by the Commissioner, Renewable Energy Department. The coordinator and the administrative staff assist in organization of the works of Expert and Thematic Working Groups, and initiate programs and services in accordance with the NREP objectives.

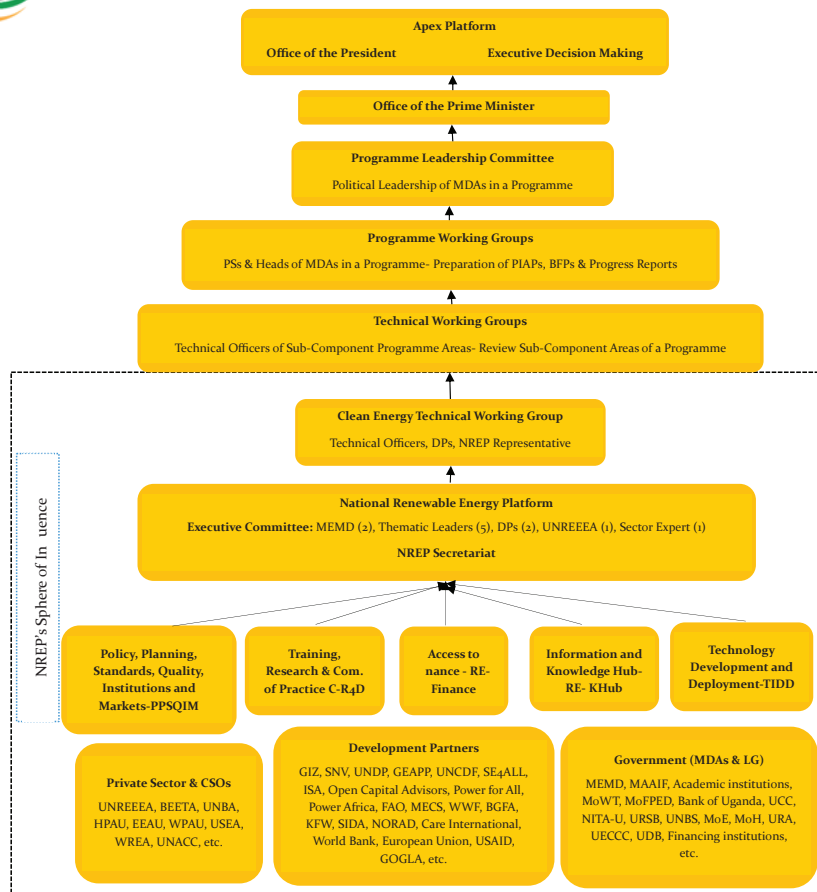


Figure 8: NREP Strategic Fit 2/2



Team

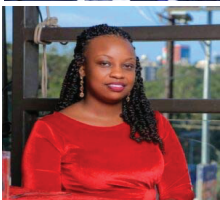


Figure 9: NREP Team



RE&EE Sector Gaps

Internal and external environment analyses considering Political, Environmental, Social, Technological, and Legal (PESTLE) analysis and Strengths, Weaknesses, Opportunities and Threats

(SWOT) analysis, below are some of the key identified RE&EE sector gaps that NREP would address through this Strategic Plan.

Table 1: Key Identified RE&EE Sector Gaps

1. Political, legal, regulatory and institutional gaps:	2. Economic, financial and market gaps:	3. Technology, human capacity and infrastructure gaps:
<ul style="list-style-type: none"> ❖ Limited comparable officially endorsed national targets and plans. A bigger gap exists with regards to heating and cooling targets, green hydrogen targets, and rooftop-mounted solar PV targets. ❖ Unclear RE&EE legal framework creates uncertainty for investors. ❖ Vagueness of project pipeline to be developed through IPP process with unclear timeframes. ❖ Slow and lengthy procedures for tendering, licensing and permitting. ❖ Project development support from Government institutions is a concern. 	<ul style="list-style-type: none"> ❖ Energy pricing systems do not reflect market unit cost of energy. ❖ Price support mechanisms and fiscal incentives are insufficient to accelerate private investment. ❖ Limited RE&EE funds or other mechanisms to channel public investment in RE&EE. ❖ Local financial institutions are rarely involved in financing RE&EE projects. ❖ Limited policies or regulations assuring guaranteed access of RE distributed generation to the grid. 	<ul style="list-style-type: none"> ❖ Technical knowledge is limited and industrial chains are relatively weak and no-integrated. ❖ Certain RE&EE technologies are not proven enough in the local context and R&D to find alternatives is lacking. ❖ RE&EE have not yet been sufficiently incorporated into management, policy, economics and other social science programmes. ❖ Government agencies outside MEMD, e.g., planning, finance, URA, UIA, and education need capacity building in RE&EE. ❖ Quality assurance systems are not prepared for RE&EE technology standardization, testing, accreditation and certification. ❖ The capacity of the current grid infrastructure in some high RE resource sites cannot absorb RE without substantial enforcement.



Figure 10: Relevant Strategic Aspects for NREP



DESIRED FUTURE

Theory of Change

NREP's Theory of Change (ToC) sets out the pathways to universal access to energy for all and achievement of SDG7 by 2030 by outlining how the platform expects to contribute to the outcomes that lead to change, both directly and indirectly. The ToC illustrates the platform's vision of how Uganda will move, over time, towards the achievement of SDG7 — access to affordable, reliable, sustainable and modern energy for all by 2030 — and clean energy transitions, in line with the objectives of the Paris Agreement.

For NREP, the achievement of SDG7 by 2030 also means large-scale social, economic and environmental impacts, including improved climate, health, livelihoods and job creation, gender equality and food security, putting people at the heart of all the platform does.

NREP's track record brings national influence and convening power, access to and influence with leaders of government, development partners, international organizations, regional bodies, philanthropies and the private sector & CSOs. NREP's strategy bridges advocacy and

influence with targeted national-specific interventions, all through the strength of NREP's unique ability to create impactful partnerships. Together, solutions are designed through an ecosystems approach focused on rapid changes in the enabling environment needed to support implementation of RE&EE and energy transition commitments. With time running short in this final decade to achieve SDG7, urgency and action must be at the forefront of the platform's work. NREP's combined top-down and bottom-up approach reflects the ambition required to meet SDG7 by 2030.

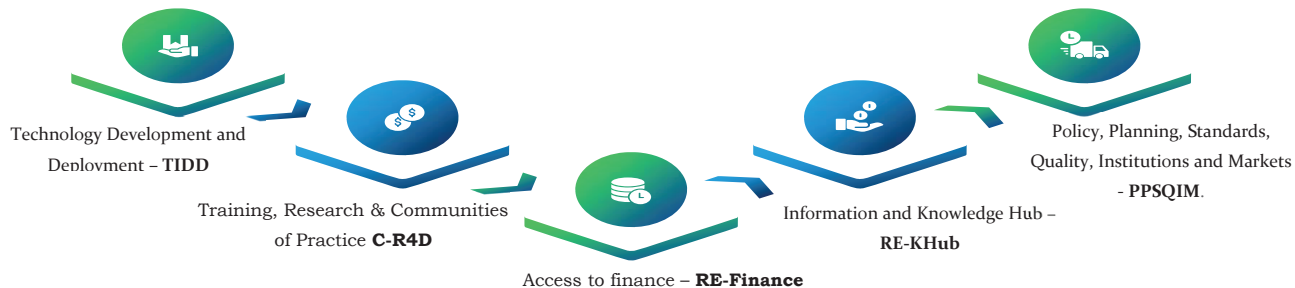


Figure 11: NREP's Key Thematic Areas

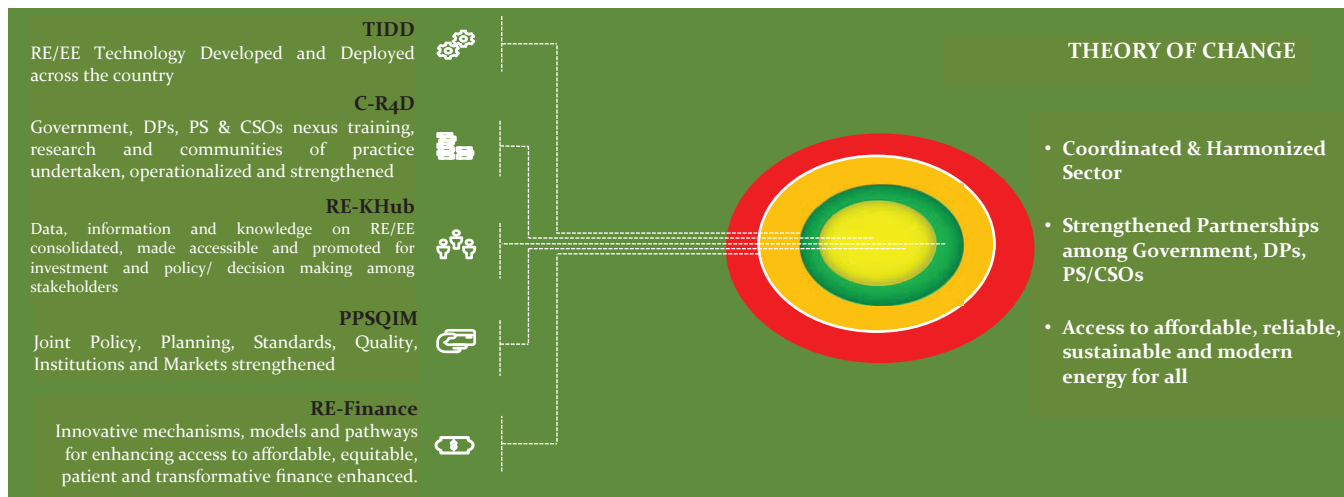


Figure 12: NREP's Theory of Change

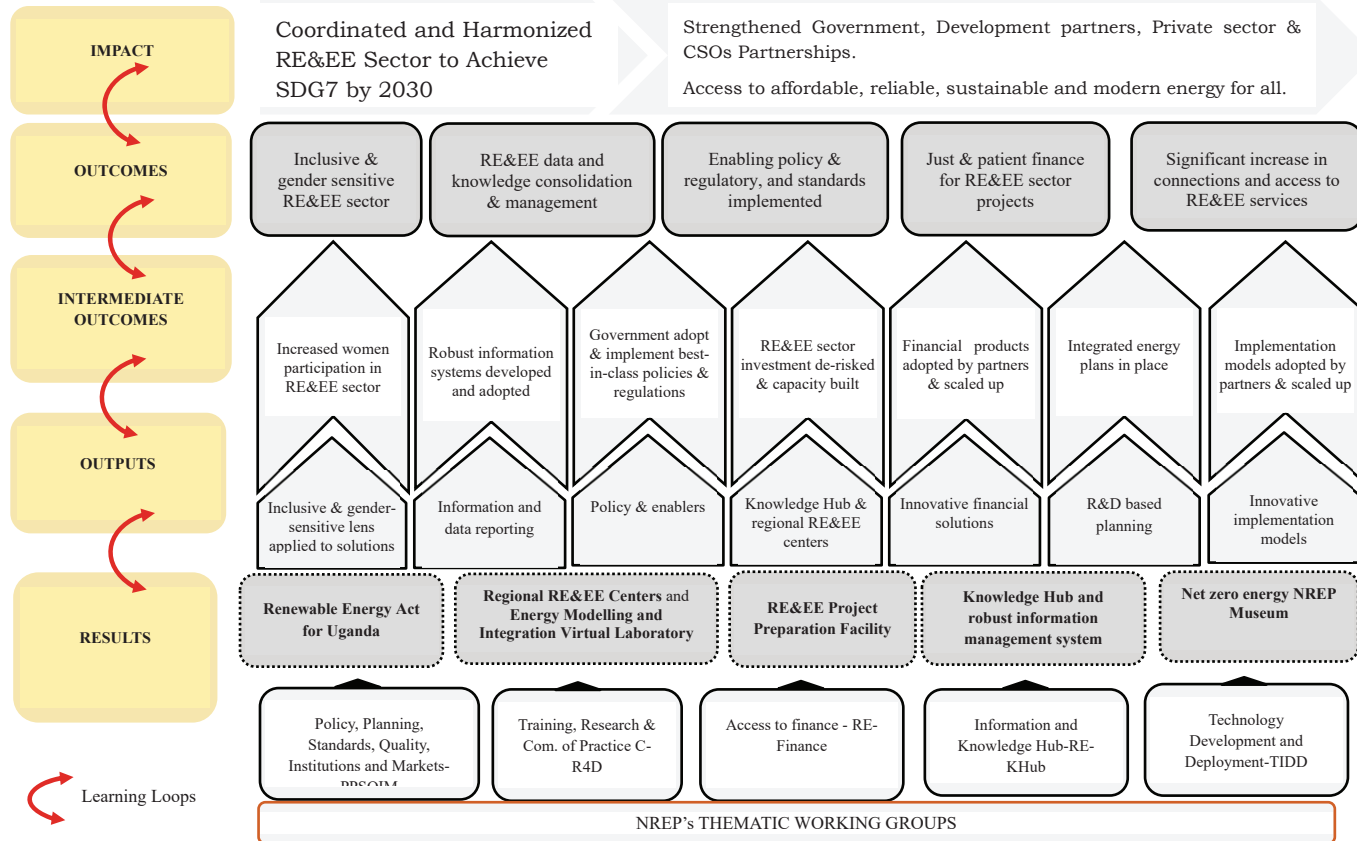


Figure 13: NREP's Organizational Theory of Change 2023 – 2028



Value Addition

For almost two years, NREP has played a critical role in shaping thinking around the challenges and solutions to achieve a collaborated and harmonized RE&EE sector in Uganda SDG7.

Since several large organizations, funding partners, and companies are committing substantial resources to energy access efforts in the final decade for achieving SDG7, NREP's strategic direction has to shift.

RE&EE sector stakeholders reached a consensus that NREP should focus more on enhancing and building partnerships and shaping and coordinating activities and

resources dedicated to SDG7. Leaders, especially government — as the most effective implementing partners to achieve the scale and impact required — need direction on how to resolve their energy challenges. NREP is better placed to support rapid implementation on the ground and to enable governments to deliver efficient clean energy to their citizens through the platform's stakeholders.

NREP has strategically chosen to strengthen national RE&EE agenda-setting while expanding its activities to an engagement model that prioritizes data-driven decision-making, partnerships with high-impact institutions and actors and coordinating sector activities on the ground.

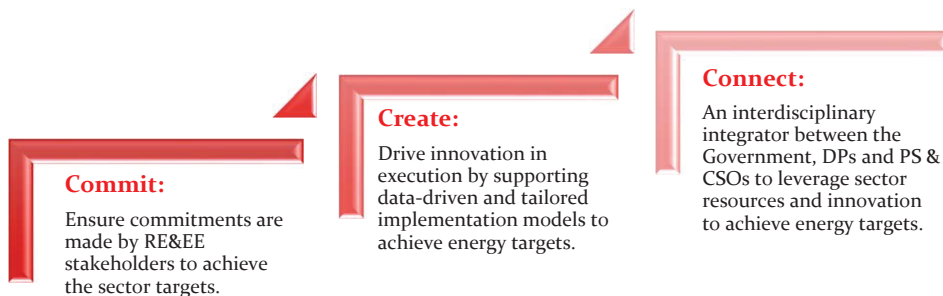


Figure 14: NREP's Guiding Principles



NREP will continue to support high-level advocacy and national RE&EE agenda-setting, leveraging and building on its relationship with the Ministry of Energy and Mineral Development – MEMD, Development Partners’ Energy Working Group and Private Sector umbrella bodies (UNREEEA, UNACC, BEETA, UNBA, USEA, WREAU, HPAU, EEAU, WPAU) and its reputation as a neutral and trusted convener. NREP will also provide the capabilities to implement large-scale programmes – Results Offers – under four thematic areas that have a clear value proposition, Key Performance Indicators (KPIs) and impact metrics, a collaboration model with key partners and a detailed budget and action plan.

Data and evidence show that to close access gaps, NREP must focus on the high-impact areas that are the furthest behind and/or have the slowest pace of RE&EE progress. Energy access gaps are prevalent in rural and hard-to-reach areas. Gaps in energy efficiency and access to cooling are distributed more across the country, but overlap with regions that have large energy access gaps, making both urban and rural areas a priority for these transitions as well.

While NREP’s efforts focus on all the targets of SDG7, access to electricity and clean cooking are the furthest behind. These targets are critical to achieving most of the other SDGs, including improved health, education, livelihoods and climate. Progress on modern renewables is not fast enough and gains in energy efficiency are also slowing down, and the emerging productive use of energy as a socio-economic and technological transformation is still nascent in the country.

Access to sustainable energy sits at the centre of many other policy priorities, such as climate, poverty and health. Therefore, civil society organizations and multilateral institutions are often calling on the same group of funders and partners to take action. NREP will leverage its unique characteristics to mobilize and coordinate the resources required.

2023 – 2028 Outlook

To position NREP to deliver its new strategic direction, an organizational structure was developed that aligns staff and teams to deliver large-scale Results organized under five Thematic Working Groups across the energy ecosystem.

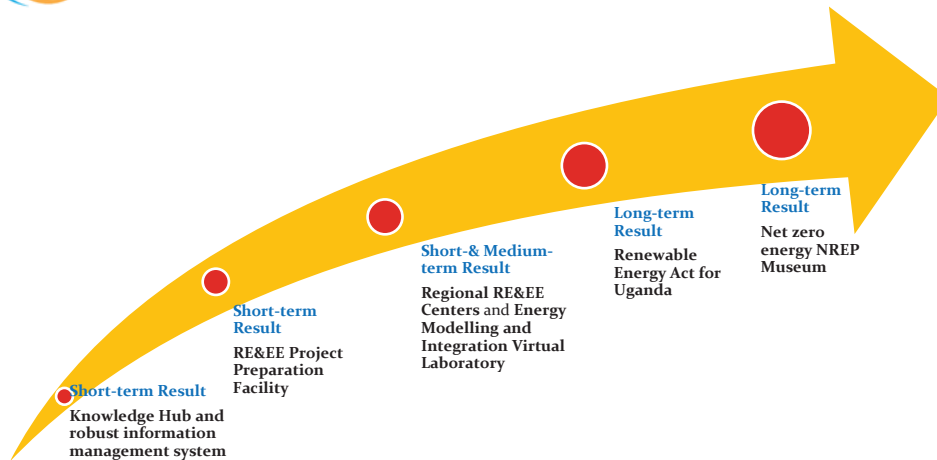


Figure 15: 2023 - 2028 Outlook Major Results

The Results are commitments to funding partners that lay out the purpose of interventions, the activities NREP will conduct, the resources required for impact, and the metrics that will track to measure impact. To achieve the anticipated impact, a set of leading indicators, outputs, outcomes, and impact metrics for each Result have been developed.

To bring NREP and its work closer to the challenges on the ground, the platform envisions to establish staff presence in high-priority regions across the country through the

launch of Regional RE&EE Centers in Jinja, Mbale, Mbarara, Masaka, Fort Portal, Kabale, Gulu and Arua. The staff will allow the platform to engage more closely with stakeholders in these regions and to advance collaboration and coordination with government, partners and other technical assistance agencies.



Resources Required

To build the new strategic vision of achieving the set Results, NREP stakeholders will require a five-year budget of USD 31.8 million: USD 3.9 million in 2023; USD 4.7 million in 2024; USD 5.8 million in 2025; USD 7.5 million in 2026; and USD 9.9 million in 2027. This represents a compound annual growth rate

(CAGR) of 20.7 percent between 2022 and 2028. The biggest increase is planned for 2025 as NREP aims to frontload investments in the launch of Regional RE&EE centers and commencement of Net zero energy NREP museum. Overall, the budget estimates are meant to be invested in the RE&EE sector by its stakeholders, rather than being managed by the NREP secretariat.

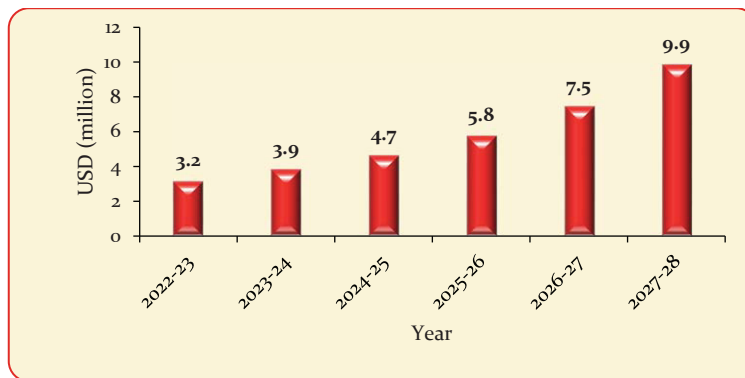


Figure 16: Annual Budget Estimates



OPERATIONAL PLANS

Implementation Plan

The implementation plan provides guiding principles and institutional framework for implementing the NREP Strategic Plan. The implementation of this Strategic Plan will be guided by the principles presented in **Table 2**.

Institutionally, all the RE&EE stakeholders, that is, Government (MDAs), Development Partners, and

Private Sector & CSOs and their specialized institutions are at the center of implementation of this Strategic Plan. NREP secretariat in turn will interact with relevant RE&EE organizations such as MEMD, other Ministries, energy regulators, utilities, REP, development partners, CSOs, private sector associations and banking institutions that carry out the implementation at different levels. Implementation of this Strategic Plan will also be done in collaboration with regional, continental and global bodies as will be identified.



Table 2: NREP Strategic Plan Guiding Principles

Responsibility	RE&EE stakeholders will choose and implement those actions of this Strategic Plan that are of priority to the sector on a demand driven basis.
Subsidiarity	This Strategic Plan will be implemented at the most appropriate levels by relevant RE&EE stakeholders in the country and any well-wishers as presented under the strategic interventions and action plans.
Participation	Any institution can propose and participate in the implementation of this Strategic Plan interventions. These institutions can be public, private, civil society, academia and development partners.
Harmonization and Rationalization	This Strategic Plan is intended to promote coherency and alignment of national, regional, continental and global initiatives, objectives and goals.
Coordination	This Strategic Plan is intended to promote cross-sectorial and cross-cutting planning and coordination at national and regional level.
Flexibility	This Strategic Plan is open to amendments and reviews in the course of its implementation to 2028 to best respond to the changing circumstances.
Variable geometry	Certain RE&EE stakeholders can move to lead on the implementation of certain activities where they have comparative advantage or place high priority and have secured resources. This is intended to cater for disparities amongst the RE&EE stakeholders across country.
Best practices	This Strategic Plan is to be executed based on best practices and benefiting from sharing of lessons learnt amongst the RE&EE stakeholders.
Participatory	Relevant RE&EE stakeholders are informed, consulted and involved throughout the implementation of this Strategic Plan and development and implementation of interventions and Action Plans.
Sustainability	This Strategic Plan is to promote local ownership, awareness, capacity building and institutional development, and is anchored on active participation of the RE&EE stakeholders where results are most required.
Optimization	This Strategic Plan is to make the best use of available financial resources, prioritizing 'high impact/ low cost' solutions and match making actions with most appropriate funding mechanisms.



Monitoring and Evaluation Framework

Quality and Appraisal Framework for the Technical Operations

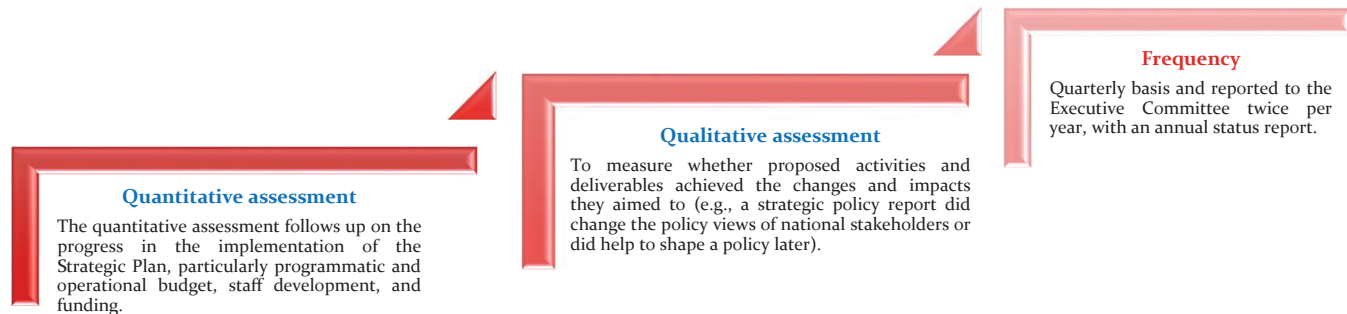


Figure 17: Appraisal Framework

Results Framework

A comprehensive process reviewing the internal and external environment analyses (PESTLE & SWOT

analyses) of the RE&EE sector, NREP identified and analyzed the objective of each thematic working group in relation to the Results, outcomes, outputs, and targets.

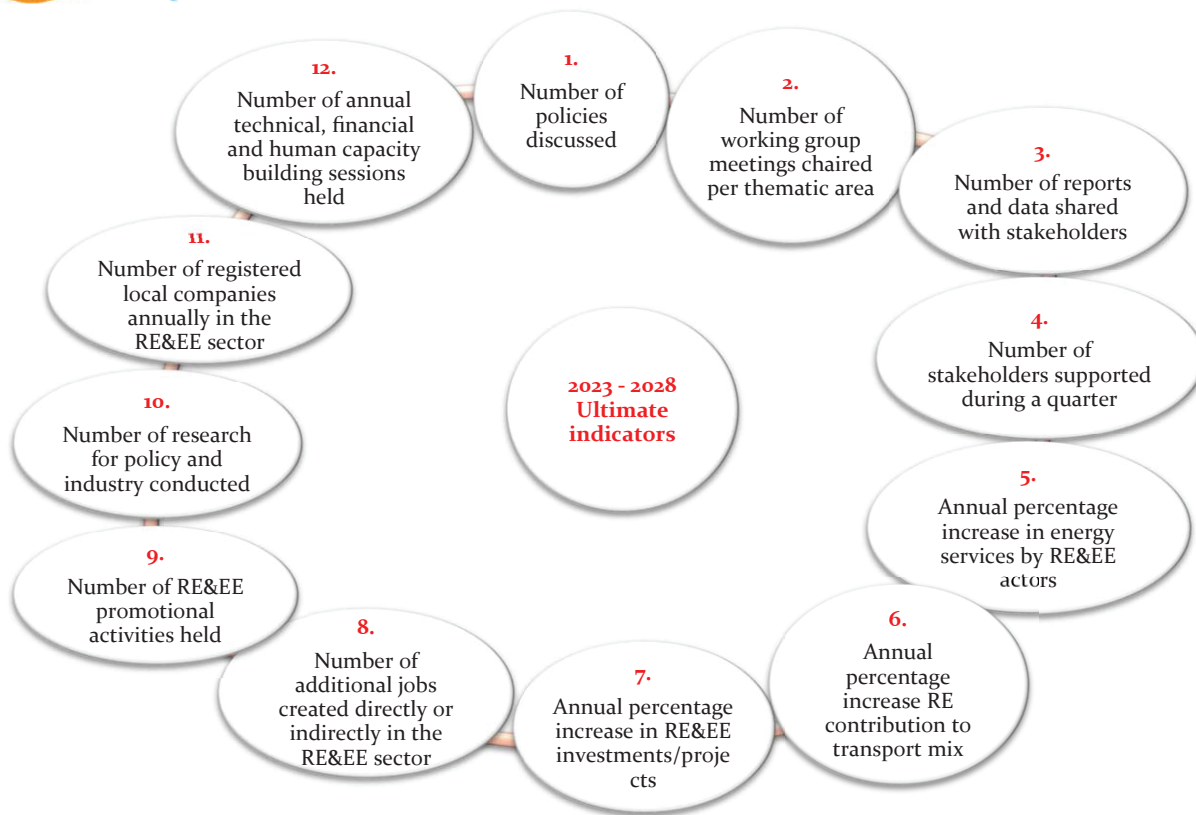


Figure 18: NREP's Ultimate Indicators 2023 - 2028



The ultimate outcome of this Strategic Plan implementation is improved access to modern, affordable, and reliable energy services, energy

security, and mitigation of negative externalities of the energy system by promoting RE&EE investments, markets, and industries in Uganda.

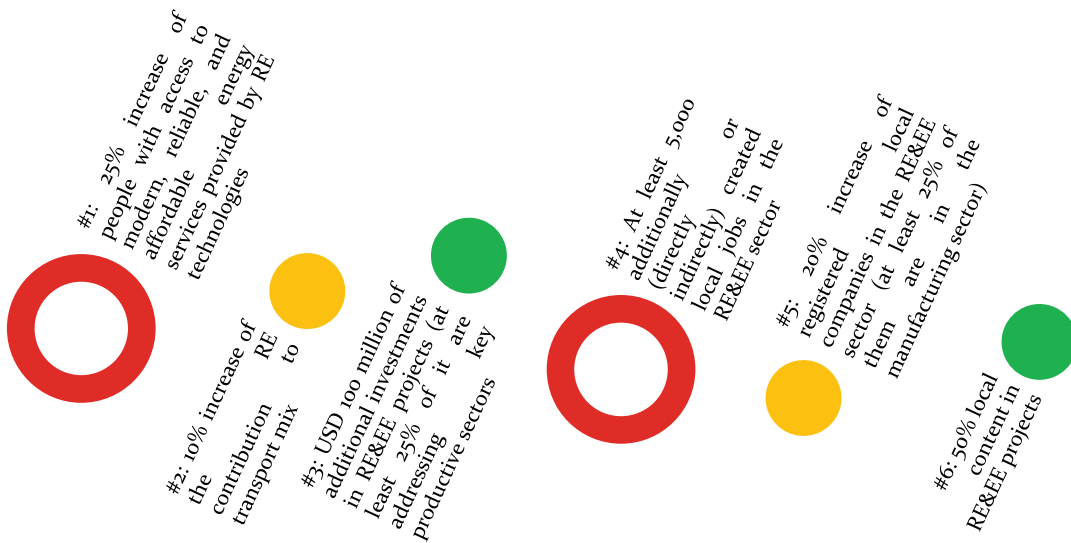


Figure 19: NREP's Ultimate Targets 2023 - 2028



Thematic Working Group: Technology Development and Deployment-TIDD

Through this Thematic Working Group, NREP will enhance the participatory identification, development, transfer, piloting, and action research on technologies and innovations in the sector. Through innovative platforms, NREP will promote latest technology adoption, developing market linkages and innovations and scaling up of technologies through commercialization, business incubation centers and other such options.

Result 1: Net zero energy NREP Museum.

Outcome 1: Increased adoption of renewable energy and efficiency investment.

Objective 1: To enhance the competitiveness of local actors while mobilizing additional investment for public institutions and private sector organizations in the market of domestic, industrial, and commercial RE&EE.

Table 3: Technology Development and Deployment-TIDD Indicators, Targets, Timelines and Organizations

Outputs	Targets	Timeline	Lead Organization
Output 1.1 Advancement in clean cooking energy adoption	Target 1.1.1 At least 6,000 electric pressure, solar and bio-ethanol cookers sold annually	Short-term	UNACC & WREAU
	Target 1.1.2 At least 2 local production facilities clean cooking appliances (EPCs, Bio-ethanol cookers & Solar cookers)	Short-& Medium-term	MEMD
Output 1.2 Upscaling of Productive Use of Energy (PUE)	Target 1.2.1 At least 100 PUE investments established annually	Medium-& Long-term	MEMD
Output 1.3 Rural electrification through Off-grid systems	Target 1.3.1 At least 5 mini-grid clusters are licensed annually	Short-& Medium-term	MEMD



	Target 1.3.2 At least 5MW equivalent stand-alone solar home systems installed annually	Short-& Medium-term	USEA & UNREEA
Output 1.4 Accelerated adoption of Net-metering Scheme	Target 1.4.1 At least 4 Net- metering pilot projects established	Short-& Medium-term	MEMD
	Target 1.4.2 Comprehensive analysis of national grid infrastructure stability (for Net-metering, E-cooking & E-mobility)	Short-term	MEMD
	Target 1.4.3 At least 50 Net-metering projects established annually	Medium-term	PSFU & UMA
Output 1.5 Production of biofuels for industrial scale utilization	Target 1.5.1 At least 2 biofuel production facilities established annually	Short-& Medium-term	MEMD
	Target 1.5.2 At least 10% of biofuel produced blended annually	Medium-term	MEMD
Output 1.6 Waste to Energy deployment	Target 6.1.1 At least 2 landfills used for energy generation	Medium-term	MEMD
	Target 1.6.2 At least 1,500 domestic biogas systems installed annually	Short-& Medium-term	UNBA
	Target 1.6.3 At least 5 commercial and industrial waste to energy facilities installed annually	Medium-& Long-term	MEMD
Output 1.7 Deployment of nascent energy options	Target 1.7.1 At least 2 floating solar systems installed	Medium-& Long-term	MEMD
	Target 1.7.2 At least 1 facility for local production of green hydrogen	Medium-& Long-term	MEMD
	Target 1.7.3 At least 1 pilot utilization of geothermal energy	Medium-& Long-term	MEMD
	Target 1.7.4 At least 1,000 units of E- and Hybrid-mobility added to the transport sector	Medium-& Long-term	MEMD & MoWT
Output 1.8 Adoption of energy conservation practices for the design, construction, and utilization of RE&EE facilities.	Target 1.2.1 Incorporate RE&EE considerations in building, transport, and work safety codes	Medium-term	MoWT (for Transport & work safety) MoLHUD (for buildings)
Output 1.9 Accelerated adoption of net-zero buildings in the country	Target 1.9.1 At least 5 net-zero buildings constructed in the country	Medium -& long-term	MoLHUD
	Target 1.9.2 At least 6 benchmarking visits annually	Long-term	MEMD



Thematic Working Group: Information and Knowledge Hub-RE – Khub

The key elements of this Thematic Working Group will be targeted RE&EE communication products; a web-based portal; a physical information resource center; gender responsive feedback and demand articulation mechanisms; and capacity development. The data, information and knowledge generated in the sector will be captured, organized, and packaged into targeted communication products. Input from other stakeholders will also be captured.

Result 2: Knowledge Hub and robust information management system.

Outcome 2: Enhanced recognition of NREP and utilization of RE&EE data and knowledge management system.

Objective 2: To provide a One-stop Center for RE&EE data and information to support planning, policy, R&D, market growth and trend forecasting.

Table 4: Information and Knowledge Hub-RE – Khub Indicators, Targets, Timelines and Organizations

Outputs	Targets	Timeline	Lead Organization
Output 2.1 Data management and consolidation	Target 2.1.1 Development of a robust information management system for RE&EE sector	Short-term	CREEC
	Target 2.1.2 Mandatory sharing of RE&EE sector data and information by stakeholders	Short- & Medium-term	MEMD
Output 2.2 R&D enhancement to support the RE&EE sector	Target 2.2.1 At least 20% increment in R&D related to RE&EE by tertiary institutions	Short-term	Academic Institutions
	Target 2.2.2 At least 25% increment in the foreign investment in the RE&EE sector	Medium-term	UIA & MEMD
	Target 2.2.3 At least 100 daily visits of the RE&EE information management system	Short- & Medium-term	CREEC
Output 2.3 Donor investment in RE&EE data and information gathering	Target 2.3.1 At least 1 annual RE&EE data and information collecting initiative	Short-term	MEMD
	Target 2.3.2 At least 2 data and information sharing events sponsored annually	Short-term	MEMD



Thematic Working Group: Access to Finance - RE-Finance

Notwithstanding impressive renewable market advances in Uganda, there is a continuous need for more and better-targeted public funding – for smart subsidies to leverage philanthropic and private capital, and to support technical reforms that create a thriving enabling environment for energy providers. This calls for a need for a united front for policymakers, development partners, investors and enterprises to help catalyze investment into the renewable energy sector solution and accelerate energy access for all. This Theme will investigate aspects of the energy finance challenge and consider the

relative roles of public and private finance in expanding energy access.

Result 3: RE&EE Project Preparation Facility

Outcome 3: RE&EE business start-up and entrepreneurship support

Objective 3: To provide differentiated support to entrepreneurial RE&EE businesses across the enterprise development life cycle (start-up, early-stage, growth, and maturity).

Table 5: Access to finance - RE-Finance Indicators, Targets, Timelines and Organizations



Outputs	Targets	Timeline	Lead Organization
Output 3.1 Project preparation Technical Assistance (TA) to support companies to progress until achieving financial close	Target 3.1.1 At least 10 RE&EE businesses are supported annually	Short-& Medium-term	UECCC
	Target 3.1.2 At least 2 existing businesses per year extend their portfolio to include sustainable energy	Medium-& Long-term	UNREEEA & members
Output 3.2 Financial support in the Energy sector to increase RE&EE business opportunities for local companies and industry.	Target 3.2.1 At least 10 million USD of new loans and co-financing grants to local SMEs and NGOs annually	Medium-& Long-term	Bank of Uganda
Output 3.3 Access to finance via different instruments, including connecting with existing financing facilities	Target 3.3.1 At least 2 investment forums are conducted annually	Short-term	UECCC
	Target 3.3.2 At least 3 million USD lent to RE&EE sector local businesses	Medium-& Long-term	Bank of Uganda
	Target 3.3.3 Just and patient facilities with flexible ticket sizes established by financing institutions	Short-& Medium-term	Uganda Bankers' Association
Output 3.4 Support for improvement of the policy and regulatory frameworks and business enabling environment both at the regional and national levels.	Target 3.4.1 At least 2 TAs conducted to support inputs from private sector associations to the policy and regulatory framework regarding the national sustainable energy business environment.	Short-term	UECCC
Output 3.5 Access to financing via different instruments facilitated	Target 3.5.1 At least USD 10 million is available for RE&EE investment in the country	Medium-term	UECCC



Thematic Working Group: Training, Research & Com. of Practice C-R4D

This Thematic Working Group will be constituted from energy research for development, think tanks, communities of practice and renowned personalities with wide experience in RE&EE, and policy support. The Thematic Working Group will collect, analyze, synthesize, produce and document data and information that supports discourse and advocacy for RE&EE and related trade strategies and policy issues. The recommendations resulting from this output will be fed into the information exchange platform output. The trainings to be planned and executed will be demand driven and respond to the immediate needs of the stakeholders. A collaborative study by Makerere University and The Open University in the UK¹ identified Renewable Energy and Energy Efficiency Centers (REEECs) as innovative configurations that can support the higher value use of renewable energy, especially in

developing markets. REEECs were presumed to offer a space that is conducive to locally-oriented innovation and the sustainable engagement with the challenges of development and poverty.

Result 4: Regional RE&EE Centers and Energy Modelling and Integration Virtual Laboratory

Outcome 4: Development of domesticated RE&EE systems, research, piloting, and enhanced RE&EE modelling skills and knowledge

Objective 4: A comprehensive Energy readiness programme that best prepares stakeholders for their respective sustainable energy futures.

Table 6: Training, Research & Com. of Practice C-R4D Indicators, Targets, Timelines and Organizations

¹ Mbalyohere, Charles; Aguti, Jessica and Nabushawo, Harriet (2019). Energy resource centres (ERCs) as vehicles for extracting higher benefits from solar power in rural and suburban areas of developing countries (the case of Uganda). In: Open Impact Conference, 13-14 Dec 2019, Uganda.



Outputs	Targets	Timeline	Lead Organization
Output 4.1 Central sustainable e-mobility policy and regulatory framework	Target 4.1.1 Government includes low carbon mobility / EV targets in their Energy/GHG targets Target 4.1.2 Government includes EE in transport and EV in their energy roadmaps, NDCs, and Low Emissions Development Strategies	Medium-term Medium-term	Science, Technology and Innovation (STI) Secretariat STI Secretariat
Output 4.2 Empowerment of local institutions and private sector through capacity building and reinforced networks and partnerships between stakeholders.	Target 4.2.1 Affirmative action that necessitates twinning of local and foreign mini-grid developers for mini-grid projects in the country	Short-& Medium-term	MEMD
Output 4.3 Awareness Raising and Promotion.	Target 4.3.1 A social and marketing research on RE&EE is conducted in at least 3 tertiary institutions	Short-term	Academic Institutions
	Target 4.3.2 At least 3 awareness and promotion campaigns on RE&EE completed annually	Short-term	UNREEEA
	Target 4.3.3 Model guideline on e-mobility purchase, charging, servicing, and support developed, published, and promoted	Short-& Medium-term	STI Secretariat
	Target 4.3.4 At least 6 RE&EE barazas organized annually	Short-term	NREP Secretariat
Output 4.4 RE&EE Demonstration and Upscale.	Target 4.4.1 At least 2 demos for E-mobility held annually	Short-& Medium-term	STI Secretariat
	Target 4.4.2 At least 2 demos for clean cooking held annually	Short-& Medium-term	UNACC
	Target 4.4.3 At least 2 demos for productive use of energy held annually	Short-& Medium-term	USEA
Output 4.5 RE&EE Capacity Building and Skilling.	Target 4.5.1 At least RE&EE course introduced major tertiary institutions	Medium-& Long-term	Academic Institutions
	Target 4.5.2 At least 3 technical capacity building sessions held annually	Short-& Medium-term	UNREEEA
Output 4.6 RE&EE sector research agenda.	Target 4.6.1 At least 2 industry-based research programmes developed by tertiary institutions	Medium-& Long-term	Academic Institutions
	Target 4.6.2 At least 6 research for industry and policy conducted annually	Short-& Medium-term	Academic Institutions
	Target 4.6.3 At least 12 research for industry and policy dialogues held annually	Short-& Medium-term	MEMD



Thematic Working Group: Policy, Planning, Standards, Quality, Institutions and Markets-PPSQIM

This Thematic Working Group will focus on addressing issues leading to inappropriate policy environments for the RE&EE input and output marketing in Uganda. The Thematic Working Group will address the lack of appropriate policies for enabling equitable market access to input and output markets, and limited capacity for implementation of existing appropriate policy options. The actions will also enhance capacities for generating quick and credible evidence and advocacy for appropriate RE&EE policy enactment and implementation in Uganda. The Thematic Working Group will focus on analyzing market intervention policies, subsidies, price controls, bans, tariffs and custom fees, documentation and procedures, freight charges, infrastructure policy, etc. in Uganda, and their implications on transaction costs, market

performance and sector commercialization. This analysis will feed into national dialogue workshops to identify issues for rationalization and harmonization; development of the policy reform agenda and national/ regional fora for consensus building and sensitization.

Result 5: Renewable Energy Act for Uganda

Outcome 5: Enhanced uptake of RE&EE systems for productive use of energy and mini-grids development

Objective 5: Increased clean energy access and improved livelihoods for communities through technically sound mini-grid systems.

Table 7: Policy, Planning, Standards, Quality, Institutions and Markets-PPSQIM Indicators, Targets, Timelines and Organizations



Outputs	Targets	Timeline	Lead Organization
Output 5.1 Market intelligence; enhanced awareness of mini-grid market and strengthen market knowledge through market intelligence development.	Target 5.1.1 Development of mini-grids' development procedure guidelines	Short-term	MEMD
	Target 5.1.2 Development of a mini-grids' database for the country	Short-term	MEMD
Output 5.2 Adoption of codes, standards, regulations and labelling	Target 5.2.1 Adoption of RE&EE standards and labelling for clean cooking appliances	Short- & Medium-term	MEMD & UNBS
	Target 5.2.2 Adoption of RE&EE standards and regulations for mini-grids	Short-term	ERA
	Target 5.2.3 Adoption of RE&EE standards and labelling for productive use of energy appliances	Short- & Medium-term	UNBS
	Target 5.2.4 Adoption of RE&EE standards and regulations for agrivoltaic systems	Short- & Medium-term	MAAIF & MEMD
	Target 5.2.5 Adoption of a ethical and consumer protection code	Short- & Medium-term	MEMD
	Target 5.2.6 Certification of RE&EE technicians, artisans, and other actors	Short- & Medium-term	DIT
Output 5.3 Increased entrepreneurship through productive uses of energy	Target 5.3.1 At least 10 RE&EE micro and SMEs established upcountry	Short-term	UNREEEA
	Target 5.3.2 At least 10% increase in women participation and investment in RE&EE sector	Short-term	OUMA/ Open Capital
	Target 5.3.3 At least 20% annual increment in RE&EE jobs created	Short-term	MEMD
Output 5.4 Renewable Energy sector mainstreaming	Target 5.4.1 Development of the Renewable Energy Act for Uganda	Medium- & Long-term	MEMD
	Target 5.4.2 At least 2 stakeholders' engagements on RE&EE regulation held annually	Short-term	MEMD
	Target 5.4.3 At least 4 policy briefs on RE&EE developed annually	Short-term	Development Partners & Private Sector Actors



RESOURCE MOBILIZATION STRATEGY

Fundraising

The present resource mobilization strategy lists four (4) priorities when leveraging funds and negotiating with potential donors and partners.

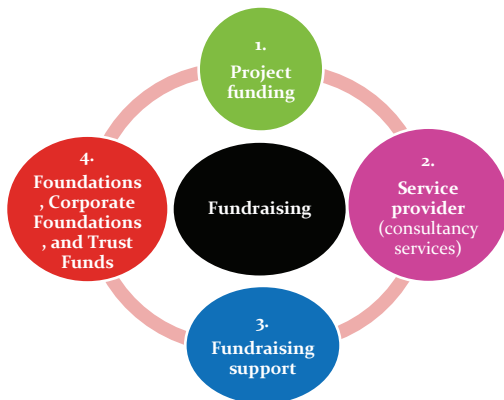


Figure 20: Fundraising Approaches

GIZ, UNCDF, UNPD, HDF Energy, TotalEnergies, FAO, MECS and MEMD have funded NREP's previous activities, such as publicity, documents, workshops and conferences. However, NREP still needs funding for its on-going operations and upcoming activities of the present Strategic Plan.

Generating Revenues

The objective of this subsection is to identify the most effective ways to mobilize budgetary resources for NREP's work in support of the 2023-27 strategic plan.



Table 8: Categories of Budget Resources Mobilization and Proposed Actions

Category	Proposed Actions
Widen Donor Base	<ul style="list-style-type: none"> • Strengthen Strategic Partnerships with stakeholders • Reach out to the private sector, donors, and financial institutions. • Establish pooled funding for cross-sectorial activities.
Building Resource Mobilization Capacity	<ul style="list-style-type: none"> • Develop the temporary capacity to support resource mobilization at the corporate level, financed from existing resources, or draw upon MEMD's resources. • Establish an internal task force led by the platform coordinators to mobilize funding. • Streamline internal administrative procedures to support practical resource mobilization.
Cost Recovery Planning	<ul style="list-style-type: none"> • Develop a resource mobilization action plan for each sub-program, identifying funding gaps and targets and timelines for mobilizing budgetary resources. • Establish cost-recovery arrangements when planning for resource mobilization.
Seek Voluntary Contributions	<ul style="list-style-type: none"> • Explore Voluntary contributions of university students and graduates, Professional Officers/Associate Experts. • Seek voluntary logistical and substantive in-kind contributions from RE&EE stakeholders in different forms (i.e., technical expertise for studies, assessments, and publications; communication networks and on-site resources).
Ensure Transparency of Budget Funding and Projects	<ul style="list-style-type: none"> • Use the Open NREP sections on the NREP website. • Provide regular reporting to the intergovernmental bodies and donors on the receipt and expenditures of budgetary resources to sustain trust and support.
Strengthen National Ownership and Increase the Sustainability of Projects	<ul style="list-style-type: none"> • Provide small grants to non-profit organizations for specific tasks (administrative, logistical, and substantive). • Ensure strict compliance of grants with donor financial rules and regulations.



CONCLUSION

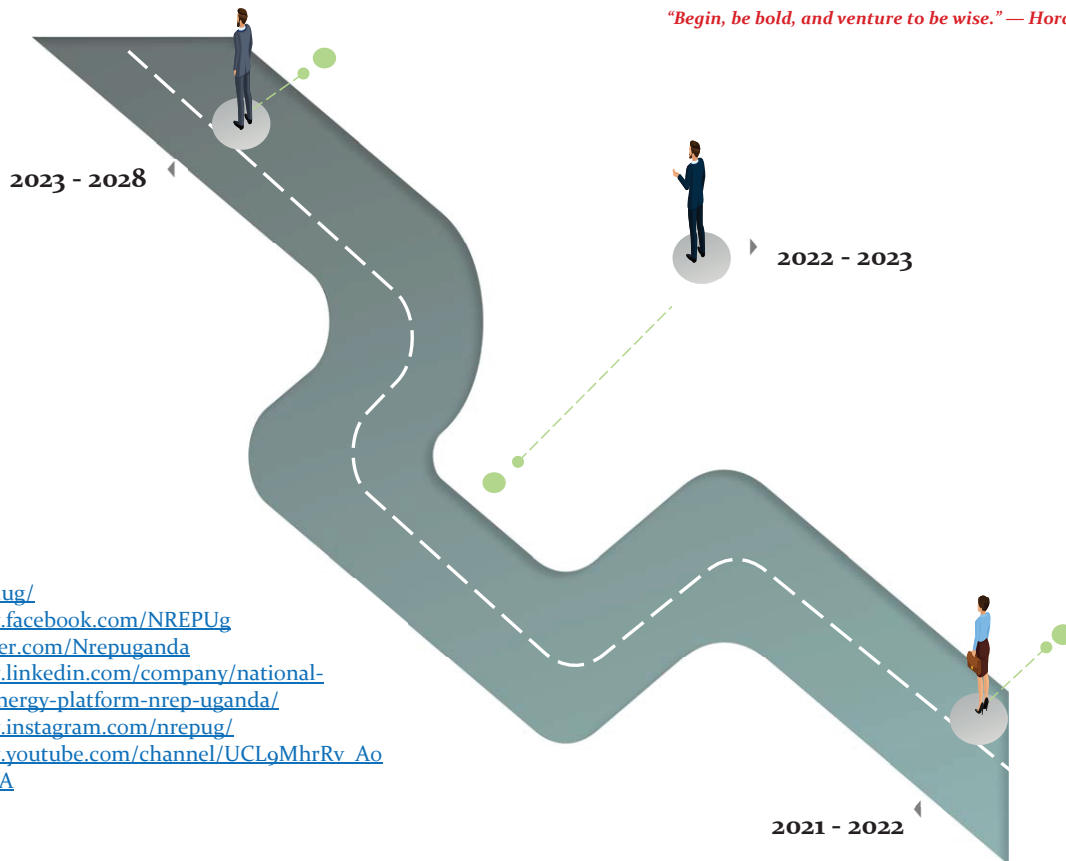
NREP has initiated systematic activities for RE&EE including for research and development. RE&EE are currently experiencing increasing vibrancy across all sectors of the economy driven by sustained economic growth and growing global concerns regarding climate change. There are various stakeholders that directly/indirectly contribute towards the promotion of RE&EE, and each one has some aspirations and expectations from this sector, just as they have a significant responsibility. This is in a way laying the foundation of a new economy that is inclusive, sustainable and aspires for decarbonization of energy in a definite time frame. However, there is a long way to go. In order to create an enabling environment, the NREP as the RE&EE coordinator

and consolidator will have a significant contribution to make.

While policy and budgetary support for RE&EE have progressively increased over the years, particularly for large scale grid connected power, there continue to exist many barriers that hinder up-scaling of RE&EE deployment. And perhaps more importantly, some critical gaps remain, particularly for decentralized distribution in the areas of access to capital, technology development & adaptation, innovation induction, and strategies to up-scale deployment. The priority Results that have been earmarked in this Strategic Plan along with the process and tools for measuring success of the actions will facilitate achievement of the ambitious targets and aspirational goals proposed.



"Begin, be bold, and venture to be wise." — Horace



More Info:

1. <https://nrep.ug/>
2. <https://www.facebook.com/NREPUg>
3. <https://twitter.com/Nrepuganda>
4. <https://www.linkedin.com/company/national-renewable-energy-platform-nrep-uganda/>
5. <https://www.instagram.com/nrepug/>
6. https://www.youtube.com/channel/UCLgMhrRv_Ao69vIcfKHtsoA