

THE

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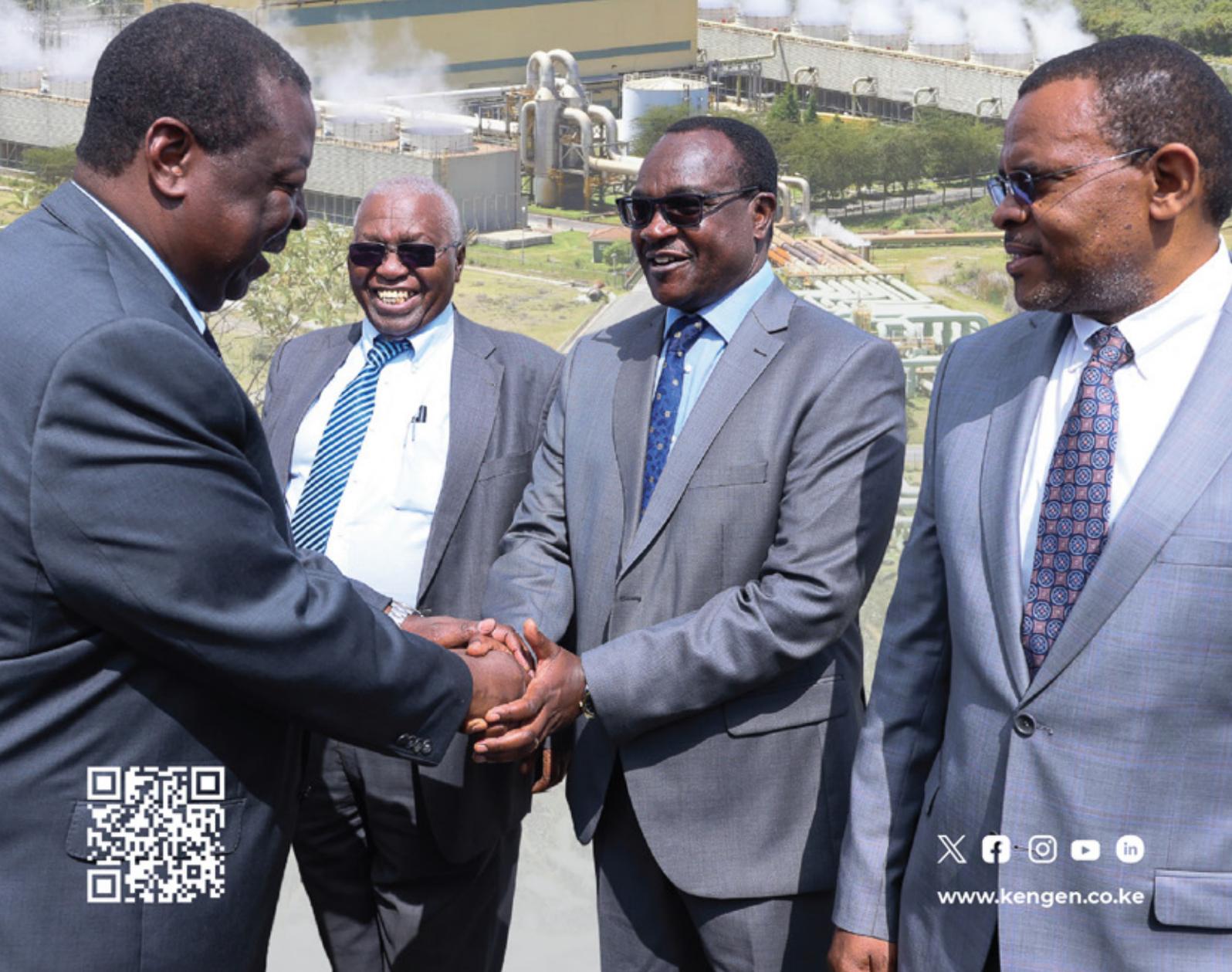
ENERGY

POST

PS Wachira sets out early to shine a light to secure Kenya's energy future

Can geothermal energy save the falling shilling?

Nairobi makes history as host of the Africa EnergyForum



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Welcome to the Energy Post



Dear Esteemed Readers

It is with great pleasure and enthusiasm that I extend a warm welcome to you as we launch the inaugural edition of the Energy Post. This magazine represents our commitment to transparency, innovation, and the sustainable future of Kenya's energy sector.

At KenGen, we believe in harnessing the power of knowledge and sharing our expertise to inspire positive change. The Energy Post serves as a platform to celebrate the remarkable achievements of our talented team, shed light on industry trends, and engage with our valued stakeholders.

I am delighted to share that KenGen has cemented its regional geothermal footprint, expanding our operations to Ethiopia and Djibouti. We have embarked on successful drilling projects in these countries, spreading the light of sustainable energy solutions and leaving a lasting impact.

We continue to explore new opportunities, with geothermal feasibility studies currently underway in the Democratic Republic of Congo, Comoros, and Rwanda. These endeavors hold immense potential, and we are hopeful to secure drilling deals that will further extend our reach and illuminate the African continent.

Within the pages of the Energy Post, you will find captivating articles that capture the essence of our regional expansion and highlight our commitment to providing clean and reliable energy solutions across borders. We are proud to share these stories and invite you to join us in celebrating these milestones.

I invite you to immerse yourself in the captivating narratives, insightful opinions, and inspiring stories that await you. Let Energy Post be your guide to the latest developments, best practices, and

innovative solutions that drive our commitment to a greener, more sustainable future.

As we embark on this exciting journey, I extend my heartfelt gratitude to the dedicated team that brought the Energy Post to life. Their tireless efforts and unwavering commitment have made this publication a reality.

I am confident that this magazine will not only inform and engage you but also ignite conversations, foster collaborations, and empower us all to create a brighter energy landscape for Kenya, the African continent, and beyond.

Thank you for your continued support, and I look forward to hearing your feedback on this inaugural edition of the Energy Post.

Warm regards,

Eng. Peter Njenga
Managing Director and CEO, KenGen

Welcome to the Energy Post



Dear Esteemed Readers

It is with immense pleasure and excitement that I present to you the first edition of the Energy Post, KenGen's external quarterly magazine. As the Editorial Director, it is my privilege to introduce a publication that encapsulates the passion, expertise, and dedication of our incredible team and contributors.

The Energy Post aims to be more than just a magazine. It is a gateway to the world of sustainable energy solutions, a platform for dialogue and thought leadership, and a source of inspiration for our readers. We are committed to providing you with captivating content that enlightens, educates, and empowers.

Within these pages, you will find a rich tapestry of articles penned by our very own KenGen team members with each bringing their unique expertise and passion to the forefront. From exploring the transformative power of

transparency and authenticity to discussing vital topics such as gender equality, geothermal energy, and corporate social responsibility, the Energy Post offers a diverse range of insights that will captivate your mind and broaden your perspective.

We have also curated articles that highlight our partnerships, cross-country learnings, and the journey toward a greener, more sustainable future. From our commitment to water towers conservation to the promotion of renewable energy solutions, the Energy Post showcases KenGen's unwavering dedication to being at the forefront of positive change.

I invite you to delve into the pages of the Energy Post and join us on this enlightening journey. Let us explore, together, the untapped potential of the energy sector and discover how we can shape a brighter future for generations to come.

I extend my heartfelt appreciation to the talented contributors, writers, and the entire editorial team for their hard work and dedication in bringing this magazine to life. Without their passion and commitment, the Energy Post would not have been possible.

Thank you for joining us in this exciting endeavor. I encourage you to engage, share your thoughts, and be an active part of the Energy Post community. Together, we can spark change and illuminate a path towards a sustainable, energy-rich future.

Warm regards,

David Muthike
General Manager - Commercial Services, KenGen

Welcome to the Energy Post



Dear Esteemed Readers

Welcome to the inaugural edition of The Energy Post Magazine. Here, we delve into the depths of 'Securing Kenya's Energy Future,' exploring the opportunities that lie within the borders of our great country and continent at large. Some have been well-articulated before, but many are still hidden in plain sight. Until now!

Within these pages, thought-provoking articles reveal the realities and possibilities that guide us toward a prosperous energy future in Africa. As we navigate the delicate balance of energy production and economic stability, we find ourselves connected to the broader African story, where collaboration holds the key to mutual prosperity.

Moreover, we delve deeper into the impact of policy decisions, which can attract investments, fortifying Kenya's energy landscape and fostering innovation.

In the same way, the delicate balance of electricity tariff review

becomes a captivating exploration, as we navigate the intricacies of balancing consumer interests with the pressing need for sustainable energy infrastructure development.

This edition also emphasizes the vital role of diversity and inclusivity in driving innovation and progress. Empowering women in the energy sector is not only essential but crucial for a resilient and inclusive energy future. Reminds me of the Barbie movie showing now in the Cinemas, begging the question, why is it hard for us to strike a quick balance and be more inclusive? No doubt we can all benefit from this.

Kenya's recent historic feat in hosting the first Africa Energy Forum in the continent fills us with immense pride. Here, we reflect on the growing importance of our nation in shaping the continent's energy dialogue.

I must express my deepest gratitude to our exceptional team of writers, researchers, and contributors for their unwavering

dedication to producing this enriching compilation of articles. Their tireless efforts echo our collective commitment to securing Kenya's energy future. Not to forget the leadership of KenGen who made this entire publication possible.

As we embark on this passionate journey with The Energy Post Magazine, our aim is to ignite conversations, inspire new ideas, and empower actions that will forge a brighter, more sustainable tomorrow for Africa. Together, let us soar towards a resilient and prosperous energy future.

Gratitude fills our hearts for the seekers of truth like you - our dear readers. Feel free to share your feedback with us. Thank you for joining us on this transformative voyage.

Warm regards,

Frank D. Ochieng
Marketing and Corporate Communication Manager, KenGen

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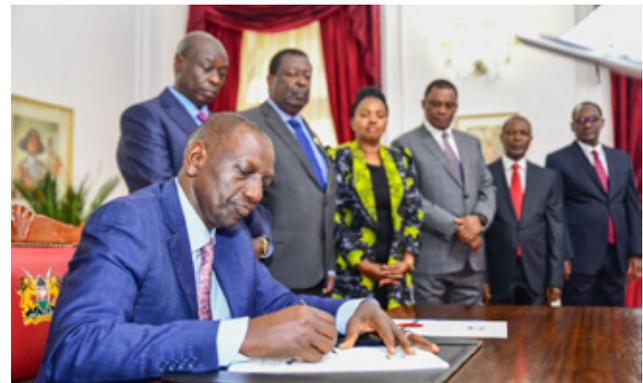
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PS Wachira: Shining a Light to Secure Kenya's Energy Future



By Frank D. Ochieng, Marketing and Corporate Communication Manager



When he first stepped foot on the legendary KAWI House grounds as the man to replace Maj. Gen (Rtd) Dr. Gordon Kihalangwa, it was clear to everyone that he was stepping into big shoes - shoes that had tightly fitted the long-serving Energy PS. Dr. Eng. Joseph Njoroge.

No matter how one looked at it, from the lenses of age, experience, or expertise, the new man, appointed Principal Secretary of the State Department of Energy in December 2022, was certainly no match for the two, or so it seemed.

Before the dust could settle, the new kid on the KAWI block wasted no time in setting his tone. He chose to show up with no shoes at all and soon enough, it became obvious that he was altogether not intending to walk - not on his own will nor in anyone's footsteps. Mr. Alex Wachira was on a totally different mission. He was on a mission to fly the energy flag to uncharted heights.

Known in different circles as 'Wa-Total,' the energy sector would soon learn that a new sun had risen and, with it, a totally new way of life had set in. It would not be business as usual anymore.

Born in 1982 at the heart of the nation, Nyeri County, Mr. Wachira is a man of many skills. He is an experienced investment banker, with a marked career in Kenya's thriving money



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Public service, as the PS has come to learn, is a full-time job, punctuated with countless formalities, unlike in the private sector which he was used to, having worked there all his life.

market. He understands the business of stocks and bonds investment like it was child's play. This is something he has done all his adult life from his early days at the university, where he graduated with a Bachelor of Science degree.

Mr. Wachira also has an interest and expertise in medicine, is a champion of breast cancer advocacy and believes that early testing saves lives. He not only talks but walks the talk as he is widely experienced and highly qualified to conduct breast cancer assessments.

He is a strong believer in servant leadership and a family man who attributes his ethics to a strict upbringing which he says helped to shape him into the person he has become.

Having started his formal education at Kamuka Boarding Primary School, he is a man who learned to be independent early in life. "There is a way boarding school forces you to toughen up, but it also plants a seed of community in you, which grows over time to inspire the spirit of service to society," he says.

In his own words, he is driven by success and the undying need to achieve it. He carries with him a unique passion and drive to deliver excellence in anything he touches. All his life, persistence and drive to change things has been a mantra he resolved early in life, never to settle for less. That is why he wakes up every morning.

At the end of the day, he loves to retire to bed, having achieved all he set out to do with the rising of the sun. "Unresolved issues will keep

me awake at night and I dislike going to bed with pending issues," alludes Mr. Wachira.

Yet the energy sector never runs out of unresolved issues. At the time of this interview, the one thing that was giving him sleepless nights was the challenge of hydrology, or the lack of it, so to speak, which he said had affected power generation in the large hydro dams in the Seven Forks cascade.

"The poor hydrology is giving me sleepless nights, especially at the Masinga dam, which is our largest hydropower reservoir," reckoned Wachira, adding hopefully, "But with the onset of the long rains, I am hopeful that this will change."

He was, however, quick to add that the team at the helm of the energy towers in Kenya, under the

leadership of the Cabinet Secretary, Ministry of Energy and Petroleum, Davis Chirchir, had put in place all the measures to ensure that the country was not plunged into total darkness as witnessed in many countries across the world currently facing severe energy crises.

“Thanks to the huge investment we have made in geothermal, we will shift our generation focus to this new renewable and clean energy source to ensure that we secure our energy supply to Kenyans, so there is absolutely no threat of load-shedding or power rationing,” said the PS to assure Kenyans.

The question in the minds of many Kenyans, however, would be what business a banker by profession would have on energy matters. I asked him if he had any culture shocks. His response was straight-up honest.

“I realize now that in government, top leadership works and puts in a lot of hours. I am always in the office by 7.00 a.m. and stay on late into the night, sometimes as late as 10.00 pm,” said Mr. Wachira adding, “This does not go to say that once you have given your all on weekdays, you can have the weekends to yourself. Far from it. On most weekends, I have to handle an issue or two that is work-related.”

Public service, as the PS has learned, is a full-time job, punctuated with countless formalities, unlike in the private sector which he was used to, having worked there all his life. “We traveled less frequently as compared to the government, where a lot of work is done in the field to implement projects



and monitor them to ensure successful delivery of government aspirations,” he said.

Many of the planning and monitoring sessions are done in meetings, something Mr. Wachira was not used to in the private sector. He says he has had to adjust and is now accustomed to attending and sitting in many long meetings to ensure the delivery of key tasks in the energy docket. Most of this includes stakeholder management, engagement with various development partners, and touring project sites to stave off the risk of development programs being implemented only on paper.

Mr. Wachira notes, “I have less personal time with friends and family. It gets more difficult to socialize or keep tabs on your social circle due to changes in my schedule.” Like any other leader in public service, Mr. Wachira brought with him a neat briefcase containing a long to-do list in his “first 100 days in office.”

He recalls with nostalgia, “I wanted to unlock some stalled projects and fortunately my team and I have ensured delivery of adequate geothermal power to Nairobi South, Industrial Area, and Athi River, and yes, the delivery of power to Nairobi West is right on course.”

At a time when Kenya was staring at a deficit of power supply considering the poor performance of the hydroelectric fleets as a result of low water inflows, there was an urgent need to think outside the box and outside the box they did. “We have fast-tracked cheap power imports from Ethiopia into Kenya and are now receiving up to 200MW to complement our

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As we approach Vision 2023, we are happy with the gains we have made so far. Our focus is now firmly on achieving 100% clean energy use in Kenya, close on the universal access to electricity and ramp up clean cooking across the country



local sources to keep our economy active even in hard times,” says Mr. Wachira, a decision he says was made on a Sunday, early in January 2023.

Even as Kenya seeks cross-border solutions to its power needs, the country is also doubling up to scale up its local generation capacity with the recent entrant in the market being a 35MW geothermal power plant in Menengai whose groundbreaking in June 2023 was headlined by Kenya’s Deputy President, Rigathi Gachagua, alongside other leaders including, British High Commissioner to Kenya, Jane Marriott, Cabinet Secretary of the Ministry of Energy and Petroleum, Davis Chirchir and Globeleq CEO, Mike Scholey.

These are some of the successes in the energy sector over the short

time the current administration has been in office. At the same time, MOEP is actively engaging the National Treasury in discussions alongside other development partners to unlock various transmission projects that had hitherto stalled because of financial challenges. Some of the innovative solutions the team at the helm of the Energy Ministry are exploring include bringing on board Public-Private Partnerships (PPP) to liberalize the transmission side of the energy value chain and expand the network faster while easing the burden on the exchequer.

Good as the gains made may be, the one thing that is always on the lips of any Kenyan is the high cost of electricity. The cries cut across the total fabric of the Kenyan rainbow society. The rich, middle-class, and those considered needy all feel the

cost of power is too high. There is light at the end of the tunnel. Ask Mr. Wachira, he knows because he is at the heart of it.

To help address the sticky item of the cost of power, the Ministry of Energy has embarked on an all-out restructuring of Kenya’s off-taker, Kenya Power with the view of not only driving it back to profitability but also making it responsive to its customers’ needs.

“We have a plan which is in the implementation stage and we are building a strong foundation by aligning to the Kenya Kwanza Manifesto: Kenyans should await good news. Keep us in your prayers and as I always say, there is light at the end of the tunnel,” said Mr. Wachira.

The prayers of millions of Kenyans

seem to be working, returning answers not only for Kenya but the entire continent. As Africa slowly embraces renewable energy, Kenya has emerged as a leader in this arena, under the South-to-South partnership.

“We have over 92% clean and renewable energy in Kenya and are the pacesetters in this space as we offer our services and experience to others in Africa to learn and draw lessons from us,” said the Energy PS.

The one area the Energy Ministry in Kenya is keen on turning around is the transport sector, which is said to be a source of up to 70% of the global carbon footprint. Over the next decade, Mr. Wachira sees something different. A total turnaround!

“A lot of E-mobility is coming into this space. We are actively engaging investors and stakeholders to play a leading role as we set up the critical infrastructure to support the transition to electric vehicle use in Kenya,” he said.

He went on to add, “Even as we work on expanding Kenya’s energy space, we are keen on opening up the East African Power Pool to capitalize on the versatile potential of energy sources in the region, including Uganda and Ethiopia’s hydro, Tanzania’s gas and of course, Kenya’s geothermal.”

All these are projects that are at an advanced stage. In the long-term, the Ministry of Energy and Petroleum is reaching for bigger targets that were mere dreams shy some years ago, but are now at arm’s length.

“As we approach Vision 2023, we are happy with the gains we have

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A lot of E-mobility is coming into this space. We are actively engaging investors and stakeholders to play a leading role as we set up the critical infrastructure to support the transition to electric vehicle use in Kenya

made so far. Our focus is now firmly on achieving 100% clean energy use in Kenya, close on the universal access to electricity and ramp up clean cooking across the country,” said Mr. Wachira as he cast his vision into the future.

Away from work, when KAWI winds afford him some personal time, you will find him watching football, for he is an enthusiast and a die-hard supporter of Arsenal. He was hopeful his team would clinch the title this year, but fate had other plans and the royal Gunners survived to fight in another season.

“Life is like a football match. Sometimes you win and celebrate, sometimes you lose and learn the lessons from our mistakes, forge forward and appreciate the better

opponent,” he quips, adding, “Sometimes we draw and the referee waves play one. We don’t settle, we train harder so that you win in the next match. But all in all, we keep the game going.”

Aside from soccer, he is in love with deep water. He is a good swimmer and enjoys his playtime and holidays in the pool. He is also a speed thrill and loves fast cars, driving on a sunny day, while listening to soft rock music.

You will, however, not see any photos or videos of him driving fast cars on social media as is the trend with many today. Much as social media is quickly becoming part and parcel of business communication, his views on this are slightly different.

“Give social media what it needs to know about you. Keep your private life to yourself. That is why it is called the private life,” said the wise man, Mr. Wachira,

When the time comes for him to leave it all and call it a day in the world of business and public service, such is the future he has planned for himself: “I will be on an expansive farm, hopefully somewhere back home in Kieni, Nyeri County, with a big ranch with many herds of cattle, farming hay as I enjoy fattening my herd so that anytime I have guests, we can enjoy some delicious nyama choma.”

Indeed, life is for the living, and this man, Alex Wachira, is doing just that. He is doing what he loves and loves what he does. As sure as the African sun rises from the East and religiously sets on the Western horizons, going forward, the energy sector in Kenya will never be the same.



PPA Moratorium Lift Boost to Energy Security



By Emmanuel Wandera, Asst Manager - External Communications, Media Relations & PR

Good news for electricity generators and the country's energy security as the government lifted the Power Purchase Agreements (PPA) moratorium, following a Cabinet decision on February 28, 2023, through a Cabinet Despatch as a way of enhancing energy security through opening the sector for continued investments.

"In addressing the challenges of realizing a sustainable energy mix, occasioned by the prolonged drought, Cabinet approved the lifting of the moratorium on Power Purchase Agreements (PPAs) as a way of enhancing our nation's energy security through opening up the energy sector for continued investments. Cabinet further approved a framework for the transparent engagement of Independent Power Producers (IPPs) in keeping with the Renewable Energy Auction Policy," stated the Cabinet Despatch.

The moratorium is part of radical changes in the energy sector, heralded by the recommendations of the Presidential task force on Power Purchase Agreements (PPAs) that aimed at repositioning and repurposing the energy sector to increase its efficiency, ultimately leading to lower power costs for consumers, reducing the cost of power purchased from IPPs and passing the reduction to consumers.

The moratorium meant no PPA was to be signed between Kenya Power and any power generator, including KenGen, which saw more than one-year hiatus on the signing of the PPAs, slowing down the development of new generation capacity.

Speaking to the Energy Post, Energy and Petroleum and Regulatory Authority (EPRA) Director General, Kiptoo Bargaroria confirmed in an interview in June that the moratorium impacted heavily on Kenya's energy security of supply as no power plants were being built to onboard new capacity while electricity demand was growing in the country.

"When the moratorium was put in place, it slowed down the development of new capacity because KPLC was not allowed to sign up new projects, resulting in Kenya having a reserve capacity of less than 4 percent with a growth in demand post-COVID-19 recovery and no projects to meet the demand. The delay impacted the sector negatively as we could not bring in new generation projects," the DG said.

"The lack of bringing in new baseload capacity generation because of the moratorium led to an increase in the cost of power because the absence of new baseload generation from geothermal by KenGen led to reliance on thermal power, which is expensive

as hydroelectricity was affected by the drought the country has experienced in the past four years," he reiterated.

The lifting of the PPA moratorium means that KenGen and other generators can sign more PPAs with the off taker for their existing and new power projects, unlocking a more lucrative revenue stream from KenGen power plants, some of whose PPAs had expired or were about to expire.

"With the moratorium lifted, Kenyans are now guaranteed security of supply as the energy sector can now bring in new generation capacity to meet the growing demand, with the highest recorded peak demand of 2,149MW in December last year," added the DG.

In catapulting KenGen's geothermal-led strategy, the Cabinet also approved the implementation of the 40MW Olkaria I Additional units 4 and 5 and the Olkaria IV up-rating power projects.

"In furtherance of the national endeavor to realize energy security as a catalyst for economic development, Cabinet also approved the implementation of the 40MW Olkaria I additional units 4 and 5 and Olkaria IV units 1 and 2 up-rating power project," stated the Cabinet Despatch.

The approval set in motion the



The Cabinet also approved a framework for transparent engagement of IPPs in keeping with the Renewable Energy Auction Policy.

signing of the financing facility by the National Treasury Cabinet Secretary, Prof. Njuguna Ndungu, with KfW on March 2, 2023, and the launch of the project by German Chancellor Olaf Scholz during his May 2023 visit to Olkaria Geothermal fields. To bolster the deployment of renewable energy towards a 100 percent renewable energy transition, as stated in the Cabinet Dispatch, the Cabinet also approved a framework for the transparent engagement of IPPs in keeping with the Renewable Energy Auction Policy. This will help the government address the cost of

power in Kenya.

With the lifting of the PPA moratorium, the country can now focus on aligning both the energy supply and demand aspects and mainstreaming renewable sources of energy and competitive, sustainable procurement of the same towards a viable and investment-attractive energy sector for the country's economic and social growth

Eng. Peter Njenga Takes the Helm as MD and CEO



The KenGen Board of Directors appointed Eng. Peter Njenga as the Company's Managing Director and Chief Executive Officer on August 17, 2023. Eng. Njenga assumes the position previously held in acting capacity by Mr. Abraham Serem. Prior to his appointment, Eng. Peter Njenga was the General Manager for Infrastructure Development at Kenya Power and Lighting Company PLC, where he also held various positions in senior management spanning over 5 years.

Eng. Njenga comes with over 31 years in corporate leadership and management experience in the energy sector, having joined KPLC in 1991 as a graduate trainee and risen through the ranks. He holds a Bachelor of Science Degree in Electrical Engineering from University of Nairobi and a Masters Degree in Business Administration (Strategic Management) from the same institution with a vast in-depth range of professional training in leadership and management from different institutions including Harvard Business School and Strathmore University.





Eng. Peter Waweru Njenga
Managing Director and Chief Executive Officer
KenGen PLC

How geothermal can save the shilling



By Mugwe Manga, Managing Director and Co-founder - Olsuswa Energy Limited

Make no mistake, the structural and macroeconomic challenges facing Kenya are a global phenomenon affecting billions of citizens across continents. Of particular interest in recent times has been the sharp depreciation of the Kenya shilling against the United States dollar. Today, depending on your foreign exchange dealer, the green buck is commanding an all-time high price of ksh.143 - 145. And to add to the squeeze, there is a quiet dollar shortage in the market. This dilemma has left local manufacturers who import raw materials in a tough situation.

Like a contagious virus, the dollar crisis has also pervaded into the petroleum sector. In response, the Kenya government has tried to circumvent the Open Tender System (OTS) much to the chagrin of the oil marketers. The Government-to-Government contracts entered with the giants Saudi Aramco and Abu Dhabi National Oil Company (ADNOC), the Ministry of Energy and Petroleum argues, seek free up more dollars in the market even as negotiations for longer-term payment schedules for purchasing petroleum continue.

The electricity sector is no exception to being a hard currency guzzler.

According to the annual report of Kenya Power, the utility spends over USD\$900m purchasing power every year. With most Power Purchase Agreements (PPAs) being in hard currency, this is hitting the consumer hard. One only needs to look at their monthly bill to see that the foreign exchange adjustment has increased to a staggering Ksh.2.1 per kWh.

The question is then, how can we move away, if at all, from the hard currency PPA addiction and embrace local currency and/or blended PPAs? Today, our climate action response in the energy sector through local currency-based geothermal power could be highly beneficial for the economic growth and stability of the country. Geothermal being baseload power - it is available 24/7 all year round no matter the weather - offers a brilliant source of energy for long-term growth and energy security, especially considering the effects of climate change.

Firstly, the major reason for having hard currency PPAs is down to financing. In power projects, both debt and equity requirements have historically been too high for local capital markets. To put it into perspective, financing a 100-megawatt geothermal power plant could cost upwards of USD

400 million or Ksh.57 billion. Nonetheless, domestic capital markets are growing quickly in size and sophistication.

According to the Retirement Benefits Authority (RBA), pension funds in Kenya have assets under management of over USD\$10 billion. Also, most portfolio managers are overweight on government paper and need to diversify their books. This opens up the opportunity for local financing for infrastructure projects.



Geothermal acceleration with local currency PPAs would be a great move for end consumers because it would bring down the cost of power, deepen local markets for the power sector and expand the investment capabilities of our capital markets.



Olkaria Geothermal wellhead generation unit.

As the adage goes, one must dream big, but start small. Today, innovative methods are available in the market to make local currency financing a real option. GuarantCo, a British government-backed risk guarantee firm, can provide risk mitigation measures on local currency debt and bonds. One such example was Acorn's green bond of Ksh.4.3 billion for student housing, which was listed on the London Stock Exchange (LSE) to great success.

With such instruments available in the market, it could be possible to generate 10–20MW geothermal wellhead units using local currency PPAs. This proof of concept would breathe confidence into the markets. With climate change wreaking havoc on hydropower systems, the government's plan to speed up geothermal energy production comes at a critical time.

Geothermal acceleration with local currency PPAs would be a great move for end consumers because it

would bring down the cost of power, deepen local markets for the power sector and expand the investment capabilities of our capital markets. Just imagine driving growth in the power sector, using homegrown capital, and domesticating the sector for the long haul. In the short term, we can and should expect challenges in executing this, such as interest rate discoveries, setting of cost-reflective tariffs, etcetera. This will, however, in the longer term, be beneficial for industrialization and saving the falling shilling.

Executive Committee (EXCO) Photos



Pearl of Africa Looks to Secure Region's Future Energy



By Frank D. Ochieng, Marketing and Corporate Communication Manager

Sometimes, the cure for all our insecurities is to step out. All it takes is for one to step out of his or her closed safe spaces and experience the outer world. One such space is best known as the Pearl of Africa, a walking distance from Kenya. It is here that we met Dr. Eng. Harrison Mutikanga, Chief Executive Officer at Uganda Electricity Generation Company Ltd (UEGCL). He is a civil engineer who however refused to settle but went on to wander into other professions.

In the vast landscape of Uganda's power sector, punctuated by large hydropower dams and breathtaking river fronts and waterfalls, Dr. Mutikanga stands out as a green driving force behind significant advancements and transformative growth. He has spearheaded UEGCL's evolution from a modest entity to a major player in the energy industry. With over 25 years' experience tucked under his wings, spent mostly in utility management and leadership, his vision and expertise have propelled UEGCL to new heights. Through his magic, Uganda is well on the path to becoming an energy force to reckon with in the region.

Dr. Mutikanga's journey in the energy sector began with a solid foundation in civil engineering. He further enhanced his knowledge by pursuing a doctorate in Engineering

from the prestigious Delft University of Technology in the Netherlands. His research interests encompassed utility leadership, performance management, construction management and water and revenue loss management.

Before joining UEGCL, Dr. Mutikanga played a pivotal role in the successful turnaround of the National Water and Sewerage Corporation (NWSC). He seems to be the man to go to when situations get tough. Water and electricity are undoubtedly Africa's top challenges with only a handful of professionals available to help reverse the trend.

In the water sector for instance, one big challenge is the management of water losses or otherwise referred to as NRW for Non-Revenue Water which is a result of vandalism of infrastructure and theft of the product as many opt to tap their water supply for free.

"I worked in the NWSC for about 20 years. During that time, I grew through the ranks to General Manager of Kampala Water, in charge of all technical and administrative operations including supervision of a workforce of over 600 people. It is worth mentioning that I played a key role in the successful turn-around story of NWSC," said Dr. Mutikanga.

His achievements in utility management and his dedication to driving positive change positioned him as an invaluable asset to Uganda's power sector.

When Dr. Mutikanga assumed the leadership of UEGCL in December 2014, the company faced significant challenges. It had a small staff complement and struggled to make its mark in the industry. However, under his guidance, UEGCL experienced a remarkable turnaround. The company's growth trajectory became evident as its staff complement expanded to 354 employees. Today, UEGCL operates four generation facilities with a combined capacity of 813MW and its asset base has reached an impressive UGX 7.4 billion (US \$2 billion).

UEGCL's mandate, derived from the Uganda Electricity Act, encompasses the establishment, acquisition, maintenance and operation of electricity generation facilities. Additionally, the company is dedicated to promoting research and development in the sector. Guided by sound business principles, UEGCL is committed to providing reliable and affordable electricity to contribute to Uganda's socio-economic development.

Uganda's power sector has undergone significant reforms since 1999 when

the Uganda Electricity Board (UEB) was unbundled into UEGCL, Uganda Electricity Transmission Company Ltd (UETCL) and Uganda Electricity Distribution Company Ltd (UEDCL). These reforms aimed to introduce competition, attract private investment and establish regulatory oversight. Following in the footsteps of Kenya, Uganda has embraced Independent Power Producers (IPPs) to supplement government efforts in increasing installed capacity and distribution.

One of the most highly anticipated developments in Uganda's energy landscape has been the 600MW Karuma Hydro Power Plant (HPP) which is now ready for commissioning. This will be a big game-changer, not only for Uganda, but for the whole of East Africa. As at June 2023, three out of the six units had been successfully tested and synchronized to the national grid. The remaining units are scheduled to come online by the end of the year. Nestled along the River Nile in Northern Uganda, the Karuma HPP represents a significant milestone for UEGCL and the country's power sector as a whole.

The news about Karuma HPP further cemented Uganda's leadership in hydropower, which to date remains the dominant source of energy for UEGCL, accounting for 90% of its power generation. However, the global shift towards clean and green energy sources has not gone unnoticed in Uganda. Dr. Mutikanga emphasizes the country's commitment to exploring other clean energy sources including solar, wind and geothermal power. UEGCL has initiated projects such as the 5MW Nyagak III Mini Hydro Power Plant and is exploring partnerships for the development of solar energy parks.



Dr. Eng. Harrison Mutikanga,
CEO, Uganda Electricity Generation Company (UEGCL)

“Like most countries that have committed to net-zero targets, Uganda is currently exploring other sources of clean energy including Green hydrogen, bioethanol from the water hyacinth, waste to energy and geothermal, among many others,” revealed Dr. Mutikanga.

Under Dr. Mutikanga's leadership, UEGCL has fostered a culture of innovation and collaboration. The company actively engages with stakeholders and seeks partnerships with international entities and investors to drive technological advancements and knowledge sharing. By leveraging expertise and resources from around the world,

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His achievements in utility management and his dedication to driving positive change positioned him as an invaluable asset to Uganda's power sector.

UEGCL aims to unlock Uganda's untapped potential in the energy sector.



UEGCL recognizes that its impact goes beyond generating electricity. The company is committed to social responsibility and community development. Through its Corporate Social Responsibility (CSR) initiatives, UEGCL supports education, health and environmental conservation projects in the communities surrounding its power plants. These initiatives not only uplift local communities, but also foster goodwill and strengthen the company's relationship with stakeholders. Looking ahead, Dr. Mutikanga envisions a vibrant future for the

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The African grid of the future is one big, interconnected web, envisaged to increase access to electricity to all people of the countries in the region

Ugandan power sector, which he says aims to grow its installed capacity from the current 1,347MW to the National Development Plan III target of 3,500MW by 2025, diversify the energy mix and promote renewable energy sources.

Like the South Africans who seem to have taught Ugandans a lesson or two on energy, the East African nation aims to grow its generation capacity to 52GW by the year 2040 in an ambitious national strategy to attain energy security for the people of Uganda.

52GW may seem overly ambitious and crazy even, but the Ugandans, like their brothers and sisters in the region, have their eyes cast on the emerging markets in the energy sector, which is increasingly becoming interconnected.

“The African grid of the future is one big, interconnected web, envisaged to increase access to electricity to all people of the countries in the region,” said Dr. Mutikanga with excitement, adding, “The East African Power Pool (EAPP) for instance provides opportunities for UEGCL to not only sell power across border, but also buy from our neighbours in circumstances where necessary.”

If there is one thing that keeps him awake at night, it is how turnaround utilities improve the livelihood of his country’s people. He envisions a

future where African utilities will be able to fund, design, build, operate and maintain their power plants without relying on support from overseers.

He notes: “I recently read a tweet from KenGen’s Twitter page, “KenGen paid the Government of Kenya a Ksh.1.4 billion dividend for the financial year ending June 2021. This headline got me thinking about how we can make the energy sector financially viable and sustainable and provide dividend to the shareholder, while delivering affordable power to Ugandans.”

Driven by a passion for excellence and guided by a visionary mindset, the Arsenal fan envisions a future where electricity access is no longer a luxury, but a fundamental right for every Ugandan.



Dr. Eng. Harrison Mutikanga during his tour of Kipevu Power Station in Mombasa

Power Tariff Review: A Delicate Balance



By Emmanuel Wandera, Asst Manager - External Communications, Media Relations & PR

Over the past few months, all eyes have been on the Energy and Petroleum Regulatory Authority (EPRA), following an Electricity Retail Tariff Review application by KPLC that sought to review the cost of electricity in Kenya. The timing of the tariff review came when the country was at a fever pitch recovering from the electioneering period that saw the ushering in of a new Government heralding a vibrant bottom-up philosophy. Meanwhile, on the floor of the August House, incoming legislators agitated with the cost of power in Kenya. How did EPRA pull it off? EPRA Director General, Daniel Kiptoo, had a sit down in an exclusive interview with Energy Post to share behind-the-scenes intricacies of the KPLC tariff review application that was granted.

What exactly is an Electricity Retail Tariff Review and when was the last one?

Tariff review is a systematic process involving demand forecasting for bulk and retail markets, informed

by an understanding of the social, economic, and political environment and their impact on the key parameters driving demand. With our current single buyer model, the off-taker, KPLC, is usually the one to make a tariff review application to the regulator. We did the last tariff review in 2018 under the old Energy Act, which provided for a single-year review. The 2019 Energy Act provides for a three-year review.

What is the standard process of electricity tariff review?

Tariff review begins with an application. Since we have a single buyer model in Kenya, the application comes from Kenya Power, which collates all the revenue requirements on behalf of the entire sector value chain. Kenya Power looks at generation costs by KenGen and Independent Power Producers (IPPs), power purchase, transmission, distribution, and administrative costs, then puts them all into the revenue requirements. They then make an application.

Once EPRA receives the application, we start the tariff review. At EPRA, we look at the tariff from two standpoints: the economic and the social policy standpoint. This is to ensure that we review the tariff and make sure that all the costs that have been reflected in the application have been prudently incurred. Where a cost is not prudently incurred and is not part of the regulated asset base, we strike it out and allocate those costs across different consumer categories.

Once the costs have been allocated to different consumer categories, what are the next steps?

We go for public participation, then go to the EPRA Board, who reviews the application and approves it. Thereafter, we communicate to KPLC through a letter and gazette notice for the public to know. In the same way, we engage our stakeholders to let them know what we have arrived at in terms of the new tariff.

How did you manage to successfully grant Kenya Power Electricity Tariff review request?

Section 11 (b) of the Energy Act, 2019 states that the Authority shall “set, review and adjust electric power tariffs and tariff structures and investigate tariff charges, whether a specific application has been made for a tariff adjustment. This retail tariff review was interesting, though the legal mandate sits with us as the regulator in Section 11 (b) of the Energy Act, 2019, which states that the Authority shall set, review and adjust electric power tariffs and tariff structures and investigate tariff charges, whether a specific application has been made for a tariff adjustment. One key tenet is stakeholder engagement, where we must engage all stakeholders. As the regulator, our job is to balance the interests of investors, consumers, and the government. For government, there is the executive arm of government and the legislative arm, the Parliamentarians’ representatives of the people. So, if you do not manage those two arms of government well, you end up with the third one, in court, having court cases.

So, for us, we were very careful to ensure that we followed the due process under the law, gave adequate time for public participation, went around the country, then also engaged other key stakeholders including generators like KenGen, IPPs, investors in the project pipeline, development partners (the World Bank and IMF) and Parliament, through parliamentary committees, both in the Senate and National Assembly.

Media was also a key success factor in breaking down the tariff review language, away from economic and

engineering, to a simple language that Kenyans could understand.

What informed the tariff review at a time Kenya was ushering in a new Government with bottom-up philosophy, with the incoming legislators agitating for lower cost of power in Kenya?

There was no other time, considering what had happened in the energy sector. Kenya had not had a tariff review since 2018, which allowed approval for a one-year tariff control period, which has since been revised to three years under the 2019 Energy Act.



For electricity generators like KenGen and IPPs, the tariff review will guarantee payment that was delayed before the review on account of reduced revenue collection and a tariff that is not cost-effective. Kenya Power has been incurring costs that they have been unable to pay KenGen and IPPs, but with the revised tariff, they will be able to pay the generators.

When we started the process, there was a lot of noise, particularly from the political class and we reduced the tariff in January 2022 by 15 percent, applicable for one year, to allow negotiations of Power Purchase Agreements (PPAs) and engagement. Remember that the 15 percent was a subsidy by the former government and when the new government came in with a policy to do away with subsidies, at the beginning of the new financial year, the National Treasury only provided a subsidy for July and August 2022. This left the sector in a hole that needed to be filled and as such, we as the regulator took the view that we needed to have a comprehensive tariff review.

As EPRA, we guided Kenya Power to apply for a tariff review, which they did in October, to ensure we had cost-reflective tariffs that would allow the sector to meet its revenues, failure to which Kenya Power would be adversely affected and the entire energy sector value chain would take time to recover.

As the regulator, having considered the application and arguments by Kenya Power, what emerged was that Kenya needed the tariff review. Considering the frequent power outages at the time and challenges with generator breakdowns should we have come to a point where we could not pay generators, Kenya would be in a terrible place three years down the line after the three-year tariff control period.

What does the electricity tariff review mean for the entire energy sector value chain and the consumer?

For Kenya Power, the tariff adjustment allowed them to have more certainty and predictability. Before 2019, the approved tariff that



EPRA Director General, Daniel Kipto in his office during the interview.

was for one year, so the predictability comes in terms of the cost of power in the next three years for the entire energy value chain, including investors and consumers, to ease planning. Further, Kenya Power will also increase its revenue because of the tariff adjustment, thereby improving its financial sustainability.

For consumers in different categories, the tariff review led to the displacement of customers in different tariff bands and cost changes; for example, the maximum monthly consumption for lifeline consumers, which was at 100-kilowatt hours (kWh), was reduced to 30kWh. “Lifeline consumer” is a term used in the electricity sector to refer to low-income households or individuals eligible for special tariffs or subsidies to help make electricity access more equitable. The Lifeline Consumer Program aims to provide access to basic electricity services for those

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In the next three to five years, there will be a lot of disruption in the energy sector because demand is growing in the same way as the economy. The biggest disruptor in terms of regulation will be technology.

who may otherwise not be able to afford them. For industries and small commercial customers, their tariff was reduced.

For electricity generators including KenGen and IPPs, the tariff review

guarantees payment that was delayed before the review on account of reduced revenue collection and a tariff that is not cost-effective. Kenya Power has been incurring costs that they have been unable to pay KenGen and IPPs, but with the revised tariff, they should now be able to pay the generators, based on the revised revenue requirements under the new tariff.

What does the future look like for the energy sector from the regulator’s perspective?

As the regulator, we are expecting a lot of disruption in the energy sector. In the next three to five years, there will be a lot of disruption in the energy sector because demand is growing in the same way as the economy. The biggest disruptor in terms of regulation will be technology. There are a lot of technological changes and innovations, where technology

is ahead of regulation and policy. For example, the E- mobility sector, improvement in technology in the off-grid systems, solar systems, and commercial space. To support these changes as the regulator, we are developing three key regulations to operationalize the Energy Act 2019 that will be a game changer.

Net metering for one will allow consumers to generate their own power from their roofs and send it to the grid and take it back from the grid when generating output is low. Secondly, wheeling regulations to operationalize the principle of open access will enable generators to move power from point A to B and use the network on wheeling tariff to evacuate power from generators directly to consumers. Thirdly, open access will open power markets from a single buyer model to multiple players in the distribution space.

What does the future of energy generation in Africa look like? As we go into greater connectivity through power pools, will we also see more cooperation in regulation? How will this work?

Today, the East Africa Power Pool is growing. Going forward, we will see more bilateral contracts between countries. Kenya negotiated and closed a 400MW PPA with Ethiopia, where we are getting 200MW from Ethiopia as we scale up to 400MW in 2024. We also have a power exchange agreement with Uganda, which is going to be negotiated again into a firm PPA.

The power pools will see countries focus on their traditional strengths. Uganda will focus on hydro capacity, while Kenya will focus on its geothermal capacity. The interconnection between the East Africa Power Pool and the Southern

Africa Power Pool will allow members of the power pools to enjoy the benefits of their resources and open commercial opportunities for countries.



EVs are a transition in Kenya, and we believe it will take time. As we onboard EVs as the regulator, we are looking at re-training our existing solar technicians to support the industry.

With interconnectedness and power pools, who will be the regulator and how will regulations work across boundaries with each country having their own regulator?

As we speak; we already have an existing regulatory body set up for the East Africa Power Pool with its headquarters in Kampala, Uganda, whose mandate is to facilitate power trade within the power pool. This is a work in progress and it is going to be quite interesting to see how things turn out as we move to a one-power market.

It is said that EPRA is the leading regulator in the region and we have seen many other regulatory bodies benchmarking with EPRA from across the continent. Don't you think the regional regulatory will present a challenge to EPRA?

The independent regulatory body in the power pool will regulate power trade at the regional level, so there will

be no conflict with EPRA and other national regulatory bodies that are country centric. Technically, for the power pool regulator to be effective, the grid code will be harmonized with individual national regulator inputs that will be applicable across the entire region.

Kenya is embracing Electric Vehicles (EV), which has opened new business frontier to sell electricity by setting up charging stations like at Petrol Stations. Do we have the tariffs ready to spur EV growth? What are your plans for EV?

Yes, Kenya has an E-mobility tariff of Ksh.16, which was included in the Kenya Power tariff review application. We arrived at the tariff after consultation with E-Mobility sector players in the country. Besides the EV tariff, we also have a special night tariff for EV charging at Ksh.8 when electricity demand subsides. This will bolster EVs and power demand in Kenya, which we are monitoring closely. Once we establish the actual impact of EVs on power demand, we will revise the tariff downwards to allow more uptake.

EVs are a transition in Kenya, and we believe it will take time. As we onboard EVs as the regulator, we are looking at re-training our existing solar technicians to support the industry. We are also partnering with NEMA to develop regulations on the disposal of electric waste from solar batteries, including solar panels.

New Lifeline as KETRACO Gets New CEO



By Sulea Murambi - Principal Officer, Communication



The country has experienced a change in guard at various points of the electricity value chain over the past year or so. The newly appointed Captains have a vision for this country and here is a candid interview with Dr. (Eng) John Mativo, CE - Managing Director and CEO, KETRACO:

You have been in the sector for over 13 years. Now you are at the top. As a transformative leader, what is your immediate vision for electricity transmission infrastructure in the country and in the region?

My vision for this country is to get power that is competitively

costed to the grid for every Kenyan to be connected. This vision is aligned with KETRACO's mandate of planning, designing, constructing, and maintaining the transmission infrastructure.

This dream will be achieved by the following strategies that are already being implemented:



We also want to take this country to a state of zero electricity interruption by the use of mobile transformers.

It will be a matter of transporting the mobile transformers and just plugging and playing.

a) Strengthening the system - The System Strengthening/Capacity Enhancement Projects aim at improving the transfer capacity of electrical energy and address the challenge of low voltages, high transmission losses, unreliability of supply, and network security.

When the system is strengthened, this country will achieve the 'N-1' concept, which basically means that there will be absolutely no interruption of electricity when a fault occurs at any point.

The Nairobi Ring project, for example, will see an electricity ring surrounding the entire Nairobi Metropolitan and a fault along the ring will not affect the supply. Projects like the 400/220 kV Mariakani Substation will also strengthen the system and provide quality electricity to the coastal counties.

b) I wish to see electricity connected to all parts of this country - My dream is to expand the transmission network and see towns that have been off-grid connected to the National Grid, retiring the use of diesel generators and also cutting down power outages in the country.

c) By interconnecting with our neighboring countries, Kenya will engage in power trade with countries within the East African region. By the way, you may not be aware of this - Kenya was cushioned from power rationing/load shedding

earlier this year during the prolonged drought period because of the power that we transmitted from Ethiopia. The 200MW from Ethiopia was transmitted through KETRACO's 500kV Ethiopia-Kenya Transmission line.

d) Right now, a Memorandum of Understanding (MoU) for power purchase between Tanzania and Ethiopia is being explored and KETRACO will be the transmitter.

e) I envision a country that has transmission lines constructed from every generation plant and injected into the national grid.

f) Besides the above vision, my immediate strategy is to roll out Public-Private Projects (PPP), for the construction of a transmission line from Kisumu to Musaga in Kakamega County. This will be the first PPP in Africa and KETRACO is proud to pioneer!

g) I wish to extend the grid network from the current 3,500 kilometers to 8,700 kilometers. Of this, we expect to do 1,200km in the current Financial Year. These lines are expected in the grid at different intervals within the transmission planning period ending 2039.

In the discourse about energy and climate change, players in the energy value chain are committed to transitioning the country to 100% green energy.

What steps has KETRACO taken to promote the integration of renewable energy sources into the existing power grid?

KETRACO has in its transmission master plan mapped out areas with green energy and for construction of transmission lines to evacuate green energy to the national grid. For example, the Isinya Substation Complex has facilitated the evacuation of 100MW Kipeto Wind Power in Kajiado County, the 132kV Soilo-Menengai line is facilitating the evacuation of green energy from three (3) geothermal power plants, each rated at 35MW. These power plants are being developed using steam sourced from GDC.

Kenya is heavily endowed with clean, green and renewable energy resources. What role does KETRACO play in ensuring that the grid reaches every Kenyan in all corners of our nation?

Indeed, this country is blessed with the potential for green and renewable energy resources, especially along the Rift Valley. As stated above, we are building transmission lines to ensure that green energy is absorbed into the national grid, in line with the company's core mandate.

Going forward, KETRACO is looking into engaging all energy sector players during early siting for potential generation sites. This will allow the company to plan for transmission



KETRACO CEO, Dr. Eng. John Mativu during his interview with Energy Post.

lines and associated substations to map/ identify potential generation areas well in advance, in readiness for evacuation. An example of this is the Menengai - Soilo line, which was constructed and commissioned on time in preparation for the exploration of geothermal resources in the Menengai area.

What is the role of the transmitter in the government's push to reduce the cost of power for Kenyans?

As the transmitter, KETRACO is working towards the reduction in transmission losses by 1% in the next three years. The company will contribute to the reduction of technical losses, which has a direct impact on lowering power costs by:

a) Extending transmission lines that will in return reduce technical losses. I will jog your minds by reminding you of High School Physics - Transfer or movement of electrical energy at higher voltages (transmission voltages) results in lower losses than transfer at lower voltages (transmission voltages).

b) By extending our transmission lines, along with associated step-down substations, KETRACO will assist the distributor, Kenya Power to shorten the distribution lines which results in lower technical losses in the distribution grid...again basic Physics—electrical energy over a shorter conductor results in lower heat losses than a longer one.

Regional interconnectors and power trade - What does the electricity transmission in the region look like in the future?

How will the power pools work? Any benefits for KETRACO and Kenyans out of the power pools?

Kenya falls in the Eastern Africa Power Pool (EAPP), which currently has twelve-member countries. With the power pool operations, power trade across the borders will be enhanced with the following resultant benefits - sharing of generation resources, including ancillary supply support, lowering of end-user tariffs and improved supply security within the member countries.

The pool is coordinated from a centralized coordination centre. In future, the EAPP will be interconnected with the Southern Africa Power Pool (SAPP). In October this year, KETRACO will connect Kenya to Tanzania through the Isinya-Namanga line.

In the transmission journey, what is the future plan? Any new technologies for efficient electricity transmission anticipated?

A lot is in store for Kenya's electricity transmission future. First, we want to digitalize our operations. The company is developing an Asset Performance Management System (APMS) under the National System Control Centre Project. This will lead to the realization of condition-based maintenance of its transmission assets for better asset availability and life span. Makindu Substation will be our first digital substation. This substation will be almost maintenance-free. The Operations team will run this substation remotely and you will experience a stable and reliable network like never before.

We also want to take this country to a state of zero electricity interruption through the use of mobile transformers. It will be a matter of transporting the mobile transformers and just plug and play.

I know you are now thinking, aren't these strategies aimed at doing away with human resources in a country that is striving to create jobs? No, what KETRACO is simply doing is facilitating companies to perform optimally by giving them sufficient electricity and, in this way, creating jobs.

We are embracing international best practices through knowledge exchange and benchmarking to inculcate better standard operating procedures for asset maintenance. I was recently in Singapore and had the privilege of touring a substation that is 100% automated. There was absolutely no one manning the substation. These are some possibilities that Kenya can borrow.

With the recent reforms in the energy sector, system operation mandate was added to KETRACO. How has this new role shaped efficiency in the Energy sector?

The company is also in the process of establishing and operationalizing a National System Control Centre (NSCC). This will enhance the country's capacity to coordinate and facilitate power exchange and trade through the national grid and the regional power inter-connectors. The Control Centre will also allow the Company to strengthen its transmission system operation functions. Further, KETRACO recognizes that operation and maintenance of the transmission network is instrumental in ensuring

availability and accessibility of clean, reliable, secure and affordable power supply. Towards this, it will continuously build and strengthen its capacity to undertake the O&M function. All these initiatives are aimed at supporting the Kenya Kwanza National Development Agenda.

Please highlight the vandalism challenge in electricity transmission, the impact to the economy and how KETRACO is tackling this vice.

In the recent past, there has been rampant vandalism of KETRACO infrastructure, ranging from copper conductors in substations, bracings, or tower members for our transmission lines and splice box joint items for optical ground wire (OPGW).

These acts of vandalism greatly affect SCADA data from the affected substations. When there is no communication from the substation, the system control cannot operate the network because they have no visibility of the substation. When communication is affected, revenue streams for KETRACO and the telcos or customers are also affected.

Interrupted communication puts the transmission line at risk because, in case of a fault, it means protection of the line will fail and this has major consequences. Repair of such vandalism is very challenging, especially because of terrain and distances. Recently we have had two vandalism crises on the Ethiopia-Kenya transmission line, which was very challenging because of the presence of bandits in the Region. The Ethiopia-Kenya line cannot operate without communication.

Reasons for vandalism range from acts of terrorism and economic sabotage, and the hard-economic times cause vandals to remove and sell items as scrap. Current hot spots are Kitengela and Athi River.

Such simple acts have a huge impact on the economy including, collapsing of towers, malfunction of substation equipment because of loss of copper causing power outages, downtime for transmission lines because of the collapse of towers, economic loss in millions per hour of outage, and additional millions to restore the infrastructure.

We are keen to tackle the vice by sensitizing communities living along the transmission line and substations on security and safety measures. We are also carrying out regular and snap surveillance of our equipment as well as enhancing markings of our equipment to help easily identify them during checks.

KETRACO is keen on taking tough action against criminal, including, taking them to court. As players in the energy and other Government Multi Agencies, we are working together to end this vice completely with the help of the Energy Police Unit and privately owned security companies. In the future, we will explore the use of monopoles in notorious areas.

Parting shot!

I envision a country that has all its citizens connected to electricity because it is possible! This will be done when all projects are concluded in the stipulated time. I wish to explore alternative funding sources and working frameworks to achieve universal access to electricity! Stay tuned!



About the Interviewee

Dr. Dr. Eng. John M. Mativo, a Consulting Engineer registered with the Engineers Board of Kenya and Fellow Member of the Institution of Engineers of Kenya, brings over 25 years of versatile experience in research, design, and construction. Holding a PhD in Civil Engineering from Tokyo Metropolitan University, a Masters Degree from Tongji University, and a BSc. Degree from the University of Nairobi, he's a trailblazer in the field.

Eng. Mativo's legacy includes spearheading the planning, design, and construction of 5,600km of high voltage transmission lines, 68 substations, and the extension of 35. He's secured funding from renowned institutions such as AfDB, World Bank, AFD, EIB, and KfW, solidifying his pivotal role.

With over 15 speaking engagements, he's a sought-after industry expert. Before KETRACO, he completed 75

projects spanning buildings, marine, and civil engineering, and conducted value-for-money audits for 69 projects.

Beyond his career, John enjoys hiking, reading, and traveling. He's also an active volunteer in organizations like 3Es Experience and Parklands Baptist Church, leaving a meaningful impact.



Bridging Gender Gap In Kenya's Energy Sector

By Tracy Keter, Communications Officer

In 2022, the Global Gender Gap Index placed Kenya at position 57 among 146 countries. This, compared to the country's ranking in 2020, was an upward growth. According to the African Development Bank and ENERGIA country brief on gender and energy, on data representation, employment, and decision-making in the sector, 35% of the total number of staff and 15% of the technical leadership positions in the Ministry of Energy's headquarters are occupied by women.

The report further states that Kenya has showcased inspiring examples of women's involvement in senior leadership positions. In all state corporations in energy, the report further notes that there was a good representation of women at the levels of heads of departments and managers.

Over the years, KenGen has made deliberate efforts towards gender

inclusion, with the company setting up a gender mainstreaming initiative dubbed KenGen Pink Energy. Launched in November 2016, the initiative has gone a long way in creating change and enhancing the potential of women in the company.

Anchored on three pillars: personal development and empowerment, creating a conducive work environment, and creating gender awareness, the initiative continues to play a critical role in gender equality. The platform has also enabled employees to air their gender equality issues, provide training on gender matters and nurture them to be ambassadors for gender equality.

Despite making up 48% of the world labor force, women only account for 22%. and for the management levels, the numbers are even lower. The International Energy Agency (IEA) report, Energy and Gender, A critical issue in energy sector employment and energy access, mentions that the

barriers women face in the sector are similar to those they face elsewhere in the economy. This goes to form the basis for the need to empower women by facilitating professional advancement. In order to advance women's careers, it is important to improve access to employment and financial resources while investing in women's human and social capital through education, skills development, and the creation of cherished professional networks.

Despite the barriers women face, deliberate progress is being made towards gender empowerment and mainstreaming in the energy sector. On the global front, the United States Agency for International Development (USAID) has initiated the Engendering Utilities Program under Power Africa Initiative. The program is crucial under the US Government's new Women's Global Development and Prosperity Initiative (W-GDP). It aims to reach 50 million women by 2025 through

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As we reflect on our journey towards empowering women in the country, consideration should be made for well-thought-out policies and programs in hiring, retaining and promoting women

innovative and effective programs which strengthen energy and water sector operations by identifying and implementing gender equality best practices while helping utilities meet their core business goals.

The three W-GDP pillars focus on women prospering in the workforce, succeeding as entrepreneurs, and

being enabled in the economy. Currently, USAID is working with 27 energy utilities in different countries globally. KenGen is among these 27 energy utilities, having joined in 2020, with the company being one of the organizations participating in the Engendering Utilities Program, among other aspects, designed to build the capacity of women engineers and technicians while increasing their productivity in male-dominated fields.

The company has partnered with USAID to offer the Engendering Utilities Workforce Gender Equality Accelerated Program, a leadership program that develops skills and tools needed to increase gender equality, diversity, and inclusion in the workplace. The accelerated program is designed for female and male managers who wish to develop their gender equality expertise, boost their influence, and spearhead change within their organization. Operations leaders, HR managers, and managers of other support functions who are strategically

placed within their organizations to influence change are encouraged to register. Organizations are required to send two to three employees.

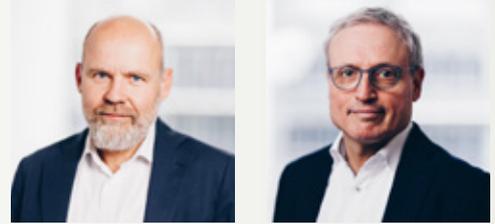
As we reflect on our journey towards empowering women in the country, consideration should be made for well-thought-out policies and programs in hiring, retaining, and promoting women. The Accelerated Program focuses on developing and improving company culture, policies, and practices that advance gender equality and is most applicable to companies that have (or are in the process of developing) standard human resource practices.

The program is facilitated by the KenGen Center of Excellence, based in Kenya, with the facilitators having more than 15 years of experience in gender equality, leadership, change management, and human resource management. The program will be delivered virtually and or in person with program modules spread over ten weeks.



Principal Geophysicist, Dr. Ann Mwangi explaining to visitors how Olkaria Geothermal field operates from Olkaria IAU viewpoint.

Learning From Kenya



By Michael Bauchmüller and Daniel Brössler - Berlin/Nairobi

The Olaf Scholz visits a geothermal power plant on his trip to Africa. What he witnesses at the plant could be replicated in Germany, although the country has yet to fully tap into its potential.

The chancellor's path to the future leads past zebras, giraffes and monkeys, right across the green savannah. While on the two-hour drive by Olaf Scholz along the African Rift Valley, it begins to steam. The steam comes from the earth; pipes crisscross the landscape and in the middle, there is a pool of thermal

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We want to conduct business in a climate-neutral and quickly become CO2-neutral making use of the possibilities offered by geothermal energy

water. “The only spa in Africa,” as the Chancellor is told, belongs to the Olkaria Geothermal Power Plant in Naivasha, the largest of its kind. On the last stop of his three-day trip to Africa, the Chancellor arrived in the wonderland of the energy transition.

“Geothermal energy is inexhaustible. Unlike solar or wind, it is available 24 hours a day, 365 days a year,” enthuses Kenya's Energy Minister, Davis Chirchir, as he welcomed them into a marquee next to the swimming pool. The production capacity is already nine gigawatts, but more is still possible. The power plant, which





Olaf Scholz visits a geothermal power plant on his trip to Africa. What he witnesses at the plant could be replicated in Germany, although the country has yet to fully tap into its potential.

has been in operation and expanded since 1981, already covers half of Kenya's electricity needs. Ninety-two percent of the country's energy comes from renewable sources. It should be 100 percent by 2030 or even earlier.

The Chancellor is confident, but "we don't have any volcanic regions in Germany." The Chancellor likes to hear that. Not just because his coalition also wants to expand renewable electricity to 80 percent by 2030, but because he urgently needs a few examples of how heat can also be generated in a climate-neutral manner. After all, the traffic light alliance is fighting quite desperately with the plans for a climate-friendly heat supply regulation, the so-called "Heat set laws." Tapping into the earth's heat could solve a lot of problems at once.

Because geothermal energy is also possible in Germany, at least in some regions, the GDR experimented with it as early as the 1980s, aiming to become less dependent on raw material imports. This led to the construction of the first German geothermal plant in Waren an der Müritz, primarily for heat supply. The principle behind these systems

remains the same everywhere: Thermal water is extracted through a borehole that can reach depths of up to 4500 meters and brought to the surface. Here, it releases its heat and once cooled, flows back down through a second borehole.

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**Scholz agrees
that geothermal
energy is possible in
many more places
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realize**
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The amount of heat obtained depends entirely on the depth, with greater depths resulting in higher temperatures. When in doubt, devices such as heat pumps are used, which have gained popularity in Germany in a very short time.

These devices utilize electricity to condense heat, even if the heat does not come from deep layers but from the nearby soil, known as "near-

surface geothermal energy." It is important to note that geothermal energy does not naturally steam out of the ground everywhere as it does in the African Rift Valley in Kenya. The Chancellor is aware of this fact as well. "We don't have any volcanic regions like Kenya here in Germany, but we have numerous areas and landscapes that provide favourable conditions for geothermal energy," he explained. Recently, Scholz visited a geothermal power plant in Schwerin, which is expected to provide heat to 2000 households. He predicts that with Germany's engineering knowledge and technological expertise, they will not only assist Kenya, but also revive the use of geothermal energy in Germany.

When asked what Germany can learn from Kenya, the Chancellor replied, "We should make use of the natural conditions." Furthermore, a report from the Federal Ministry of Economics last autumn stated that the significant potential of geothermal energy for climate-neutral heat supply in Germany has not been fully utilized thus far. At that time, the ministry identified 42 projects utilizing deep geothermal energy, with 24 of them located in Bavaria alone. The South German Molasse Basin where Munich is situated, is considered the most promising region by experts. However, North Rhine-Westphalia, Baden-Württemberg, Brandenburg and Rhineland-Palatinate also utilize geothermal heat. The ministry plans to add 100 more projects by 2030 since geothermal energy has only contributed a fraction of the eco-heat generated in the country so far. Scholz agrees that geothermal energy is possible in many more places in Germany than people currently realize.

And especially in cities, it could help



German Chancellor, Olaf Scholz launches the 340MW Olkaria I Additional Units 4, 5 uprating project and Olkaria IV geothermal plants as CS Energy and Petroleum and other dignitaries look on.

to make heating climate-friendly because the supply of district heating is often the simplest alternative to oil and gas heating. The households would no longer have to take care of the climate-friendly changeover themselves, but the local municipal utility would have to do it - and possibly also with district heating. However, many investors have been reluctant to go deep in geothermal energy: drilling costs millions and there is no guarantee that they will find hot water. A kind of fund could help spread these risks over many shoulders, but so far it does not exist. On the other hand, data on the geological subsoil is now more easily accessible. That makes it a lot easier.

Particularly in urban areas, geothermal energy could play a crucial role in establishing environmentally friendly heating systems. In cities, district heating often serves as a viable alternative to oil and gas heating. This means that households would no longer have to individually manage the transition to climate-friendly heating. Instead, the responsibility would

lie with local municipal utilities, potentially through district heating solutions. However, the reluctance of many investors to engage in deep geothermal energy remains a challenge. The high drilling costs, which amount to millions, coupled with the uncertainty of finding hot water, deter them. One possible solution to distribute these risks among multiple parties could be the establishment of a fund. However, such a fund does not currently exist. On the positive side, geological subsoil data has become more readily available, which greatly facilitates the process.

In Olkaria, there are no concerns about this issue, as the energy is readily available. This is what makes Kenya an ideal partner for Germany. During his meeting with President William Ruto, Scholz praised Kenya as a “climate champion.” In turn, the Energy Minister expressed enthusiasm about the “green horizons” that could be pursued together, such as the production of green hydrogen or ammonia. Scholz welcomed this initiative and Kenya

intends to join the “Climate Club,” an alliance proposed by Scholz that is currently being formed. This alliance should also aid in the development of green hydrogen, as well as energy generation from the earth.

“We want to conduct business in a climate-neutral and quickly become CO₂-neutral,” said the Chancellor. This can only be achieved by relying on renewable energies and generating electricity through offshore and onshore wind power, solar energy and “making use of the possibilities offered by geothermal energy,” said Scholz. Finally, wearing a white helmet, Scholz toured the actual power plant and a high-capacity turbine that converts hot steam into electricity. Over the past few years, Germany has invested 215 million euros in the construction and modernization of the power plant and further support can be promised. “It is part of the future,” said Scholz with enthusiasm as he bid farewell.

Nairobi Makes History as Host of the Africa Energy Forum



By Paul Kimanzi, Principal Officer, Communication

From June 20 to 23, 2023, Kenya proudly played host to the inaugural Africa Energy Forum (AEF), marking the first time this prestigious event was being held on African soil, at the renowned Kenyatta International Convention Center (KICC). The AEF brought together key energy stakeholders to discuss pressing issues, opportunities, and challenges in the sector. The attendees comprised over 20 ministers from African nations, representatives from utilities, private sector entities, and investors, all with a shared goal of shaping the future of energy on the continent.

Running concurrently with the AEF was the Youth Energy Summit (YES!), which returned for its second edition in Nairobi. This dynamic summit provided a platform for young professionals in the energy sector to engage in discussions and find innovative solutions. The YES! summit aimed to empower African youth, allowing them to share their energy journey stories and connect with future leaders. For KenGen's young professionals, this was a chance to inspire and amplify their impact on the sustainable energy future of the continent.

KenGen was chosen as the host utility of the 25th AEF. This selection is a testament to the company's pivotal position in the energy sector, not only within Kenya, but across the continent. KenGen's impressive achievements in green energy initiatives, renewable energy projects, and carbon emissions reduction showcase its unwavering commitment to building resilience and promoting a sustainable future.

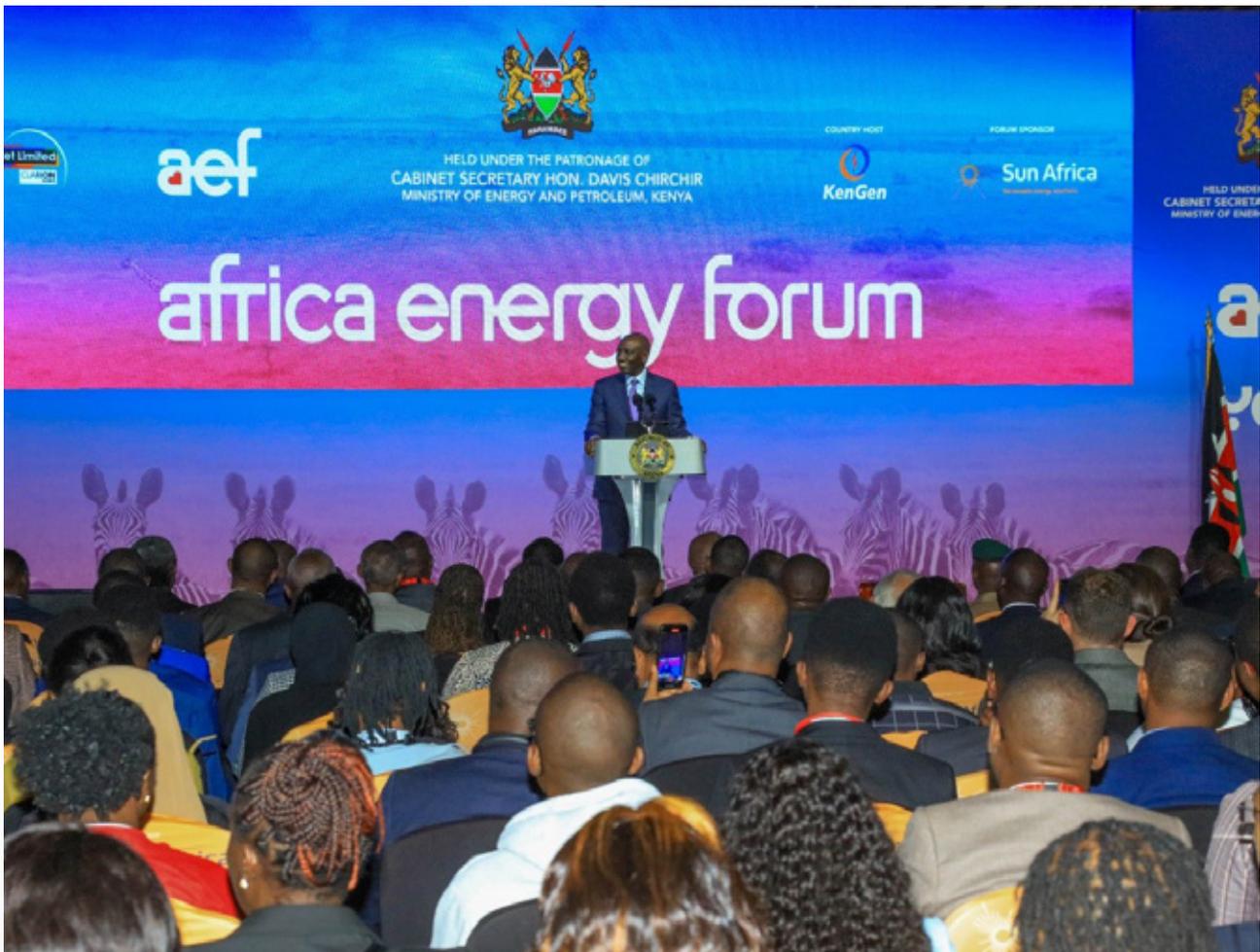
As the leading electricity generator in Eastern Africa, KenGen took center stage during the forum. The event featured an array of captivating

topics, ranging from project pipelines and renewable energy initiatives to the growing role of Africa's gas sector and the need to overcome barriers in energy transition for mining. The AEF 2023 proved to be a vibrant exchange of ideas, sparking engaging discussions among participants.

Prominent discussions also revolved around capital flows, risk mitigation, financing Africa's energy transition and the continent's potential as a global hydrogen powerhouse. The event delved into the establishment of regional power markets and the promotion of electricity trade between countries, emphasizing the importance of collaboration and integration to achieve Africa's energy goals.

Kenya, as a trailblazer in clean energy, has set an ambitious target to achieve 100% clean energy by 2030. As the country's main electricity generator, KenGen finds itself in a pivotal position to contribute significantly to the realization of this ambitious goal. Speaking at the forum, President William Ruto expressed his honor in hosting this premier event and underscored the need to provide green energy solutions for the continent.

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We are on course towards achieving our target of 100% clean energy by 2030. Additionally, we have set a national target to achieve 100% access to clean cooking by 2028



“Renewable energy in Kenya currently accounts for 73% of the installed power generation capacity. In terms of utilization, renewable energy accounts for 90% of the power generation dispatch. We are on course towards achieving our target of 100% clean energy by 2030. Additionally, we have set a national target to achieve 100% access to clean cooking by 2028,” said President Ruto.

The presence of other State Corporations in the energy sector, including Kenya Power, Rural Electrification and Renewable Energy Corporation (REREC), Geothermal Development Company (GDC), Energy and Petroleum Regulatory Authority (EPRA), Nuclear Power and Energy Agency (NuPEA), and Kenya Electricity Transmission Company (KETRACO), was strongly felt as leaders from these

organizations played crucial roles in ensuring the success of the forum.

The discussions held brought to light the opportunities and challenges that Africa faces. One notable opportunity is the massive untapped potential of renewable energy. The continent boasts significant resources, including 15 gigawatts of geothermal capacity available in Kenya, Tanzania, Djibouti, Comoros, Rwanda and the Eastern Democratic Republic of Congo. Potentially, Africa possesses 10 terawatts of solar power, 350 gigawatts of hydroelectric power, and 110 gigawatts of wind power, not to mention its abundance of green hydrogen, metals, and minerals. However, much of this potential remains untapped.

Ironically, Africa is home to 84% of the 675 million people worldwide without access to electricity.

Seventeen of the 20 countries with the highest population lacking electricity access are in Africa, yet, interestingly, 11 of the 20 countries with the fastest-growing access rates are also on the continent. In the context of clean cooking, it is projected that by 2030, around six out of 10 people without access to clean cooking will reside in Sub-Saharan Africa if current trends persist.

Green hydrogen emerged as a transformative resource during the forum. It not only allows Africa to monetize its renewable power generation potential but also provides a clear pathway to decarbonizing hard-to-abate sectors such as heavy industry, mining, refining, milling, construction, shipping and heavy transport.

When the German Chancellor Olaf Scholz visited KenGen’s Olkaria



The Africa Energy Forum held in Nairobi was an extraordinary milestone, bringing together leaders and experts to discuss the continent's energy future. It showcased Africa's enormous renewable energy potential, while also highlighting the challenges and opportunities that lie ahead.

geothermal field in April 2023, the discussion on hydrogen production took centre stage. Kenya envisions leveraging its vast geothermal potential to become a significant player in the green hydrogen market.

The forum's discussions shed light on the multiple benefits of green hydrogen. Apart from driving down the cost of fertilizer production and saving foreign currency, harnessing green hydrogen can lead to improved agricultural productivity and food security. The transition to a green future is projected to generate wealth and create up to 3.7 million jobs in Africa, while boosting the continent's Gross Domestic Product (GDP) by \$60 to \$120 billion by 2050. The investment potential of producing

50 million tons of hydrogen by 2035 is estimated at \$1.06 trillion, allowing Africa to supply 25 million tons of green hydrogen to global energy markets.

However, the path to a green future comes with its fair share of challenges. The high production costs, inadequate infrastructure and energy losses at each stage of the green hydrogen value chain pose significant hurdles. During a panel discussion at the forum, KenGen Acting Managing Director and CEO, Abraham Serem, emphasized the company's strategic focus on renewable energy solutions. He highlighted the demand for green energy solutions such as green hydrogen, green transport and green lighting, all of which require innovative green solutions.

Serem urged delegates and potential investors to seize the opportunities presented by the AEF and partner with KenGen. The company is currently establishing a Green Energy Park in the Olkaria Geothermal Field, a venture that aims to drive industrialization. By leveraging its abundant geothermal resources, the park will provide industrial, commercial and recreational facilities, serving as a catalyst for industrial growth. This presents an enticing opportunity for investors to collaborate with KenGen.

Kenya has firmly positioned itself as a regional leader in clean energy development, with approximately 90% of its on-grid electricity generated from renewable sources, predominantly geothermal energy. In line with its commitment to the Paris Agreement, the country seeks to further reduce its already low GreenHouse Gas emissions by an additional 32% by 2030. Achieving this goal requires prioritizing

investments that are both low-carbon and resilient to climate change.

Addressing concerns about the rising cost of electricity during a question-and-answer session, Kenya Power Managing Director and CEO, Dr Eng. Joseph Siror, assured attendees that the company is actively working to address issues that contribute to profit loss during transmission. By sealing loopholes and enhancing transmission efficiency, Kenya Power aims to find a solution to the high cost of electricity. Siror emphasized the vital role electricity plays in driving economic growth.

The success of the event was heavily attributed to the Ministry of Energy and Petroleum, led by Cabinet Secretary Davis Chirchir. In his remarks, Chirchir commended the forum for bringing together governments, electricity generators, regulators and other stakeholders. He reaffirmed the government's commitment to reducing the cost of electricity and facilitating sustainable energy solutions.

The Africa Energy Forum held in Nairobi was an extraordinary milestone, bringing together leaders and experts to discuss the continent's energy future. It showcased Africa's enormous renewable energy potential, while also highlighting the challenges and opportunities that lie ahead. With Kenya at the forefront of the clean energy transition, events like the AEF provide a platform for collaboration and innovation, propelling Africa toward a greener, more sustainable future.

Business Value of KenGen's CSI



By Ernest Nyamasyo, Communication Officer – KenGen Foundation

With the global economy changing faster than ever before, the impact of corporate organizations on general consumer welfare is being felt in more ways than expected. The rise of social media has contributed to how transparently corporate organizations conduct their businesses and, consequently, how businesses respond to society's expectations.

KenGen is one such organization. The company has a robust Foundation, dedicated to executing the company's Corporate Social Investment (CSI) policy while creating value for both. There are two different approaches to implementing CSI activities, depending on the organization. The more common one comprises companies providing funding and resources for worthwhile social causes, such as donating money and, for many people, this is the definition used when thinking about CSI.

However, another type of CSI involves putting together a sustainable program that addresses key issues of well-defined demography for the best interest of the company and society. The most successful corporate CSI program integrates these two types together to show a true commitment to a cause.

Over the years, KenGen has been at the forefront of addressing community issues at its power stations across the country and with

the setting up of the Foundation in 2012, the company repositioned itself as being able to execute long-term sustainable CSI projects.

The Foundation focuses KenGen CSI efforts on three key pillars of sustainability: Education; Environment; Water and Sanitation. The overall aim is to improve the living standards of the communities around the company's installations while sustaining the social license to operate within the areas.



over 800 secondary school and university students from across Kenya have benefitted from full scholarships

Through specialized programs targeting the communities around the company's power stations, the Foundation engages other like-minded corporate organizations in resource mobilization for long-term partnerships in implementing sustainable and replicable projects for mutual benefits.

Currently, over 800 secondary school and university students from across Kenya have benefitted from full scholarships under the education pillar, with several working at KenGen as per policy. Over 200

acres of a targeted 500 acres have been reforested in a 10-year school-based partnership environmental conservation program at 7 Forks. 600,000 community members around the company's power plants have access to clean water, either through piping, water kiosks, installed water tanks, and other rainwater-harvesting innovations, thanks to the company's CSI efforts.

The long-term relationships created through such sustainable projects reflect on the company's brand image as a responsible corporate citizen and positively impact the overall business performance and outputs. The Foundation's multi-pronged projects not only address poverty alleviation through social entrepreneurship but also create education/employment opportunities and gender equality while conserving hydro buffer zones for stable power production.

So far, the company, through the CSI projects, has the endorsement and loyalty of communities to operate, leading to smoother operations and improved earnings. As more consumers and suppliers focus their businesses on socially and environmentally responsible organizations, it is becoming more vital for companies to have a strong brand image. Returns-on-CSI projects are not limited to one-time but are gifts that keep on giving.

Africa Energy Forum (aef) 2023





G2G Global Innovation Seminar 2023





German Chancellor Olkaria Visit 2023



EIB Vice President Tours the Home of Geothermal



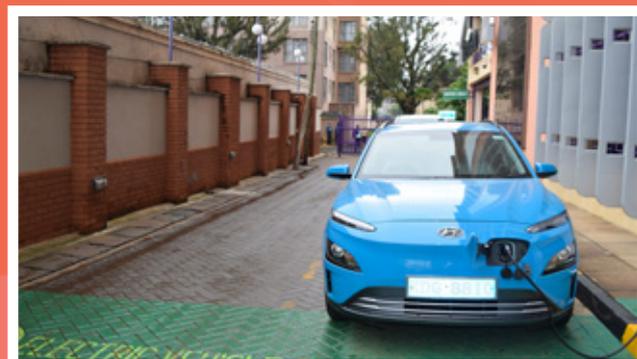
Ngong Historic Plant Availability Breakthrough Celebration



Nakuru Golf Tournament



Electric Vehicle (EV) Launch





MIGOS OGAMBA: THIS IS WHAT I BRING TO THE TABLE

Here is a man who does not see himself as anything else other than who he truly is. He is a man in touch with both his human and spiritual affairs. A man whose drive is steeped in love for his family and duty, given to a rare thirst to serve and make a difference in the lives of everyone he comes into contact with...



By Frank D. Ochieng, Marketing and Corporate Communication Manager

Here is a man who does not see himself as anything else other than who he truly is. He is a man in touch with both his human and spiritual affairs. A man whose drive is steeped in love for his family and duty, given to a rare thirst to serve and make a difference in the lives of everyone he comes into contact with.

After graduating from Law School, he was optimistic about Kenya and looked forward to joining one of the big companies in the country or the Law Courts and doing big things, serving people. That, he says, would give him therapeutic satisfaction, akin to medical practice, which was always his childhood dream. So, he stepped out to 'tarmac' for three months and decided otherwise.

His stubborn streak of courage led him to do what many people only dream of, but put it out in search of a proper foundation. He followed the burning desire to be his own boss, or maybe he simply gave up, but whatever it was, led him to the right path. He set up his own Law Practice and now destiny has brought him here.

If there was one word to describe him, it would be 'balance' - he has deliberately trained himself over time to be modest and acts in moderation to balance every aspect of his life. For a lawyer who made Ksh.300 on his first case, he has come a long way, scaling the corridors of justice to be one of the top advocates in Kenya. He is a politician who says he derives pleasure when he can make it "a little easier for others to live a life of dignity."

He is now a corporate leader who has set out to create an environment where all KenGen people can flourish right from the top to all levels of

the broad spectrum of the KenGen family. These are quite a mix of attributes but because of the kind of balance that has defined his life from the word go, coupled with his strong faith, he comes across as one poised to surmount any challenges in his path. He exudes and gives the kind of confidence of one favoured by the gods.



There comes some seasons in life where some things take precedence over others and this for me is one such season. Some things have to give way... I am ready to take the Captain's seat at KenGen

"With no form of marketing whatsoever, I believe that it was God who brought clients to me in my early practice," he says and quickly quips, "Why would all those people come to me and leave all the other big lawyers in town?"

If he was asked to give out everything, the last thing he would give is that sense of balance, as it is one attribute that seems to define his every move. Well, that seems to change. Having been bitten by the KenGen bug, he now appears more than willing to go the extra mile to use his rare set of skills to make the Company more agile, and more sustainable.

From this point on, you will know him as your Chairman, having been

elected to the Board by shareholders and effectively appointed to serve as Chairman of the Board of Directors. Meet Julius Migos Ogamba, the new Chairman of the KenGen Board.

Of all his three names, he is drawn to the middle one, Migos, which is what those close to him will use, but unfortunately for you and me, that is not an option. Migos, he says, is a short form of Migosi, which in dholuo means Mister, or a man who is well-schooled and respected. No, he is not a Luo, but he speaks some dholuo.

Like many people, he has some fears and the greatest of them is when he cannot provide a solution to everyday challenges. "I don't like to feel helpless. The fear of failing in my responsibilities can keep me awake at night, especially when I cannot contribute to the betterment of society, starting of course with my family, community, and now KenGen," he says.

As we sat long into the evening, doing this interview in between Board meetings, I watched him gaze into the space outside his 10th-floor office window and speak with a resounding resolve about his new role at the helm of East Africa's largest energy producer.

"There come some seasons in life where some things take precedence over others, and this, for me, is one such season. Some things have to give way... I am ready to take the Captain's seat at KenGen," he said, adding with even greater tenacity, "For something great to come out of this season, a few things have to give way and personal sacrifice will have to happen. I am ready for a rather 'imbalanced life' for a while."

Those who know him well describe him as one who is too controlling and always seeking perfection – always reaching for the impossible things, yet privately, he sees himself differently. He believes in making wide consultations before drawing conclusions or making decisions. He believes information is power and sets out to seek it assiduously to aid decision-making.

“I like looking at things from different perspectives and relying on information to make decisions. This is one thing I intend to continue doing here at KenGen,” he renders, “I want to really get to the crux of what the strategy is for KenGen, appreciate its strengths and opportunities to

make KenGen profitable by pulling the various levers.”

Even in his strict approach to looking at things, he is a man who will not punish failure for the mere thrill of it. He believes in giving people a chance and space to innovate and surprise him. Surely, you do not get surprised when you can control everything. He says, “I always say better to try and fail than to never have tried at all.”

When that time comes, a time to hang the boots and put an end to 8 to 5, the man who has never been employed his entire life says, “I will be in my shamba with my cows. I would also be taking long walks in my small forest that I am currently planting and nurturing!”

For one who has grown from zero to leading one of NSE’s top counters, you would assume that he is highly organized and keeps a strict diary of activities. Far from it. He is averse to structure. “I don’t like planning or structure, but I found it a necessary evil that makes life so much better,” he said.

Finally, for him, the dots from the past have connected and he can now apply all that he has gained over time to cause impact in a way it has not been done before. With his style of work and approach to life, he will no doubt dovetail into the energy sector and help cure some of Kenya’s most urgent needs.

KenGen Board Members





ONE ON ONE
WITH KenGen CHAIRMAN,
MIGOS OGAMBA



By Sulea Murambi - Principal Officer, Communication

Please introduce yourself to #TeamKenGen

My name is Julius Migos Ogamba. I am a lawyer by training, a Christian, married to one wife and I have three adult children. I am passionate about creating an environment where all people can flourish. It gives me so much pleasure when I can make it just a little easier for others to live a life of dignity.

What drives you?

I am driven by a deep desire to resolve problems and come up with ways that will give people the chance to be industrious. I am driven by the love for justice and fairness- Creating a level playing field, because I know that given a chance, all that people really need is the environment to put their best foot forward, feed their families and live decent lives.

What can keep you awake at night?

The fear of failing in my responsibilities! When I can't contribute to the betterment of society, starting with my closest people, the community, and others. I don't like to feel helpless. I have been criticized for being too controlling and wanting to make things perfect, but I always say better to try and fail than never to have tried at all.

You now have your Legal Practice and KenGen matters to handle...how are you striking this balance?

I am in a service industry, so I live to serve people. I am very satisfied when things work when and people are happy with my services.

I have always had to balance a lot of responsibilities on my shoulders-

Politics, practice, and family and with this added responsibility of steering KenGen. My practice - Migos Ogamba and Waudu is an institution that is growing and with the right delegation, I will create room to steer this Company to the greatest heights.

There are some seasons in life when some things take precedence over others. I am in this season and some things have to give way...I am ready to take the Captain's seat at KenGen!

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In order to accelerate a sustainable profitable growth, we need to ensure that system operations are aligned to our vision, values, strategies and goals.

As a transformative leader, what is your immediate vision for the Company?

I really want to get to the crux of KenGen's strategy. I want to understand its strengths and opportunities. My vision is to see KenGen generate competitively priced electricity using technology.

I wish to deal with qualified accounts and Associated Audit queries in a timely manner.

It is also my vision to make KenGen profitable, with our highly motivated and top-performing employees, I believe we can do it. Kenyans have such high expectations of us!

Success is also pegged to a Company's culture, so I am eager to understand your way of life here and amplify certain values. I value you as a staff member and I am open to hearing your ideas about making this company great.

Vision for Shareholders - My vision for shareholders is to give the best value in terms of dividends and Earnings Per Share (EPS).

Vision for the Nation - I would like to see the generation costs go lower hence lowering the cost of power. I dream of Kenyans enjoying stable and competitively priced electricity.

You come in with an already developed portfolio of clients across all sectors, what is your immediate vision or business strategy for Shareholders and the Nation at large?

KenGen is an already established organization with an annual income of over Ksh. 50 Billion, a workforce of about 2,600 staff members and Shareholders so there's a need for efficiency in operations. The Company needs to be agile in decision-making and do so while aligned because one of the things that hinder growth is bureaucracy.

In order to speed up sustainable profitable growth, we need to ensure that system operations are aligned with our vision, values, strategies, and goals. That we are all moving in the same direction. We are all here to grow the business and the board is here to support the team.

My immediate vision is to increase generation through renewable sources like Geothermal. I also wish to track the number of installed power plants.

How synchronized are the working systems and can we tell with a litmus test whether the decisions the Board is making will benefit KenGen and the nation at large?

I cannot mention my strategy in its entirety - without the benefit of deeper insights - but I can say I am excited about seeing what the horizon looks like and I am focused on steering this ship there.

Any Specific Targets that you have set to achieve? How do you plan to track and recognize the milestones? Can you tell success when you see?

Yes, Success is very visible. For me, it is to ensure that we leverage projects that will raise our generation of energy from the current 1,904MW, which is 62% of Kenya's installed capacity to at least 3,500MW which will significantly contribute towards the achievement of the nation's stated power demand to support the economic development in Kenya and the region.

But also, the other milestones to measure include:

- Track the number of new additions.
- Governance milestones.
- Efficiency in operating systems and processes.
- Addressing non-performance issues (Clients/ Suppliers/ Employees etc).
- Defining a set of common behaviors (Culture and Values).
- Clarifying decision-making.

How do you intend to merge your political and legal experience with corporate leadership?

Leadership is all the same, person, public, corporate- the key is in understanding that it's not about me but it's for the good of others- that's the highest calling one can really have in this life.

I intend to bring in a mix of political goodwill and legal expertise to mitigate any risks/ exposure.

The same way that I have aspired to be a leader in the political arena is the same way I would for my family and KenGen- I am committed to the agenda that will bring out the highest potential for those I lead, to inspire, engage and reward.

The same way that I have aspired to be a leader in the political arena is the same way I would for my family and KenGen- I am committed to the agenda that will bring out the highest potential for those I lead, to inspire, engage and reward.

You are coming to the Energy Sector amidst a prolonged drought, any strategies to continue providing safe, reliable and competitively priced electricity to Kenyans?

Indeed climate change is real and therefore we need to focus on other base load generations. Going forwards, more energy will be

focused on Geothermal, Solar, and Wind generation.

Together with the sector partners, we must come up with a plan to ensure that the customers benefit. Together we need to think of the destination we all want to be at in the next say five years, the situation now and the opportunities available. This will then help us come up with a strategy, leadership, and risks and explore partnership opportunities.

What is your Leadership/Philosophy style?

Transparency and authenticity. I encourage issues to be brought on the table. I mean what I say and I say what I mean.

Are you happy now?

Yes! I am peaceful, I sleep well even with the kind of responsibilities on my shoulder. I thank God.

How would your children describe you?

They would say Dad will do anything for us, including keeping Mum happy.

What dreams did you have growing up? What did you want to be? Are you living the dream now?

I wanted to be free of poverty. I wanted to be a doctor because I thought that to be the best position to help people. I am living the dream of helping people.

What did you miss in your childhood? What did you have in plenty?

I missed material things, but I had a lot of family love.



What is the best decision you have ever made?

Starting my law firm is the best decision I have ever made.

Any mistakes that you made along the journey and lessons learnt?

Not taking good care of my health and general wellness, and times of rest. The lessons learned include, among others: I can let go, allow God to take control, and not try to control everything.

Any life inspiration?

I am inspired by those who give up their lives for the good of others - Nelson Mandela is my icon because he suffered to liberate the lives of so many.

What would you compete in and beat everyone?

I enjoy a good game of chess, but I can't beat my own children.

Are you a good dancer?

My wife loves dancing with me to my favorite Zilizopendwa tunes...so yes, I am a good dancer!

If you were to escape life, what bottle would you take with you?

If I was to escape life, though you really can't escape life, I would take with me a bottle of Still Water. Cold!

Are you reading any books now? Share some lessons from it.

I am currently reading The Mayor of Casterbridge by Thomas Hardy. The story is centered around the life and death of a man of character. This is

the story of a rise of a man from being a drunkard to becoming a mayor. Surmounting so many character flaws to achieve something great. It is possible in this life, and that inspires me.

Something most people don't know about you?

I don't enjoy planning or structure, but I found it a necessary evil that makes life so much better. By the way, I really enjoy listening to hymns... you wouldn't imagine that about me, would you?

Paint a picture for us of the day you hung your boots at your practice...When 8-5 ends.

I will be in my shamba with my cows. I would also be taking walks in a small forest I am currently planting and nurturing!

KenGen Paints Kenya Green with Eyes on 2032



By Paul Kimanzi, Principal Officer, Communication



The world is in a race to save the planet from environmental degradation. The urgency to combat climate change and protect our ecosystems has never been greater. Amid this global challenge, one company is standing tall, making significant contributions to the preservation of our environment. In its ambitious plan to paint Kenya green, KenGen is revolutionizing the landscape of environmental conservation.

KenGen is not just another power generation company. It is a trailblazer in sustainability and climate action. With a strong commitment to economic, social, and environmental stewardship, KenGen has seamlessly integrated environmental conservation into its business operations. Recognizing the value of healthy ecosystems, the company has implemented a wide range of initiatives to reduce

its carbon footprint and uphold the integrity of the environment.

One of the most notable initiatives undertaken by KenGen is its Social Afforestation Program. Since 1986, the company has been actively involved in promoting sustainable forestry conservation, restoring degraded land, and increasing the country's forest cover. Through its six tree nurseries, located in various power stations across the country, as

well as partnerships with the local community, local organizations, and government entities, KenGen has distributed over 2.2 million tree seedlings for planting since 2015. This incredible effort has resulted in the restoration of approximately 1,976 hectares of degraded land, making a substantial impact on Kenya's ecosystem.

In April 2023, the company took part in an impactful tree-growing campaign dubbed, 'Adopt a Forest Project,' launched in Nyeri, to help rejuvenate the Gathiuru Forest in Mt. Kenya where the company donated 20,000 tree seedlings.

Speaking during the launch, Ag. Managing Director and CEO,

Abraham Serem said KenGen had implemented several significant catchment restoration projects in critical ecosystems that neighbor the company's power stations and water catchment areas.

"These are just but to mention a few of the conservation programs KenGen has fronted. Today, we are in Nyeri County to continue with the greening campaign. We understand the value of healthy ecosystems and recognize the need to align our performance with economic, social, and environmental stewardship. As a result, environmental conservation has become an integral part of any key business process," he said.

The company understands the power of partnerships in achieving greater results. Through collaborations with various organizations, KenGen has forged strong alliances in pursuit of environmental conservation. One such partnership is the Kenya Energy Sector Environment and Social Responsibility Program (KEEP), initiated by the Ministry of Energy. KenGen has actively contributed to the implementation of the 10-year KEEP work plan, including riparian restoration projects, forest adoption and the rehabilitation of degraded areas in Mt Kenya, Aberdares, Londiani, Maragoli, and Mau.



We understand the value of healthy ecosystems and recognize the need to align our performance with economic, social and environmental stewardship. As a result, environmental conservation has become an integral part of any key business process,



Additionally, KenGen has supported the Kereita Forest Challenge, the Upper Tana Environmental Conservation Partnership, and the Schools' Green Initiative Challenge, implemented through KenGen Foundation for Primary and Secondary schools. These collaborations showcase KenGen's commitment to engaging with diverse stakeholders to drive sustainable change.

But KenGen's environmental conservation efforts do not stop there. The company has implemented buffer conservation and catchment restoration activities to protect and enhance ecosystems within its operational areas. From the Tana Buffer to the Mescos and Kindaruma Buffers, KenGen has established protective tree zones and planted thousands of indigenous tree seedlings. These projects not only contribute to the company's green spaces and carbon assets, but also strengthen the overall country's forest cover.

KenGen has embarked on an extensive ecosystem restoration program. This program focuses on restoring degraded catchments that drive its generation sources, such as the Ngong, Mau and Koguta areas. By planting indigenous trees and rehabilitating degraded areas, KenGen is actively working towards raising the country's tree cover and ensuring the sustainability of its operations.

To promote a tree-growing culture within the organization, Sustainable Development Manager, Joshua Were says it was crucial to actively involve employees in conservation matters and the division rolled out a staff tree-growing campaign to create awareness among employees. "Through the programme, we have issued 42,903 tree seedlings to staff this year to support the conservation efforts in all our 5 regions, spread all over the country," he said.

The company's dedication to environmental conservation goes

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We understand the value of healthy ecosystems and recognize the need to align our performance with economic, social and environmental stewardship.

As a result, environmental conservation has become an integral part of any key business process,





beyond the borders of Kenya. The company is an active participant in the Mt. Kenya Restoration Partnership, which aims to restore the significant Mt. Kenya Ecosystem. KenGen is at the forefront of efforts to protect this vital water tower by collaborating with government agencies and private sector players.

Through its unwavering

commitment to environmental conservation, KenGen is leading the charge in saving our planet. From its social afforestation programs to sustainability partnerships and buffer conservation activities, the company is making a tangible difference in the fight against climate change. By planting millions of trees, restoring degraded catchments and engaging in collaborative initiatives,

KenGen is setting an example for other companies to emulate.

As we race against time to combat environmental degradation, KenGen's ambitious plan to paint Kenya green shines as a beacon of hope. Its efforts demonstrate that businesses can be at the forefront of sustainability and environmental stewardship.

Water Tower Conservation Good for Hydropower



By Ernest Nyamasyo, Communication Officer – KenGen Foundation

With a century of hydropower use under its belt, Kenya has long been a pioneer in using renewable energy for the generation of electricity on the continent. However, the capacity for generating energy has significantly decreased because of the impact of climate change, including increased temperatures, unpredictable rainfall patterns, and drought.

It has been acknowledged that certain effects of climate change are already irreversible. This has led to increased campaigns for adaptation measures to address these concerns by minimizing the effects on both communities and ecosystems since both are critically essential.

Hydropower is a sustainable source of energy worldwide, with about 38% of Kenya's installed energy-producing capacity coming from it. Water towers, and subsequently water catchment areas, are the main sources of many rivers in Kenya and are essential in the country's economic and social well-being since they supply over 75% of the water. These ecosystems are vital for the nation's supply of water, food, wood, and other services, including hydropower production.

Deforestation, degradation, and encroachment of water towers threaten the supply of over 70 percent

of the country's water supply and have a direct impact on hydropower production.

Population increase and the demand for land for settlements and agriculture have also contributed to this degradation of the water towers. Besides these anthropogenic factors, climate change presents an additional threat to the integrity of these ecosystems. Strengthening community resilience to climate change impact through Corporate Social Investments (CSI) is one way of decreasing the negative impact while taking advantage of existing opportunities in achieving positive outcomes.

Hydropower is still projected to remain important in the future renewable energy mix and the conservation of watertowers should be the highest priority.

Even though adaptation actions cannot fully eliminate adverse climate change impacts, critical to

the successful implementation of CSI are appropriately designed and well-implemented environmental programmes.

Key to the success of such programmes is clear targets in line with other stakeholders involved in the energy and environment sector and prudent management and implementation of strategic plans, aimed at integrating activities for long-term hydropower sustainability. Therefore, identifying these opportunities and harnessing them is important in forming part of the climate change adaptation strategy for water towers conservation.

A critical factor often overlooked is targeted and focused resource mobilization for the financing of the proposed programmes. Proficiency in partnerships management and a knack for accessing international grants offer great opportunities for the implementation of joint programmes aimed at water towers conservation.

Regardless of the goals for climate change mitigation in many countries, hydropower is still projected to remain important in the future renewable energy mix and the conservation of water towers should be the highest priority.

Introducing the Concept of Wave Energy



By Joyline Chemutai, Business Performance Officer

In the search for sustainable energy solutions, Wave energy has emerged as a promising source of power generation. There are significant advancements in wave energy technology and its growing adoption in the United States and Spain. With the potential to provide clean, consistent, and reliable power, wave energy is paving the way for a greener future.

Production and Deployment

The United States and Spain have recognized the vast potential of wave energy and have been actively investing in research, development, and deployment of wave energy technologies. The US, with its long coastline and abundant wave resources, has been making significant strides in this field. Leading projects such as the Pacific Marine Energy Center in Oregon and the Wave Energy Prize initiative are driving innovation and showcasing the feasibility of wave energy conversion.

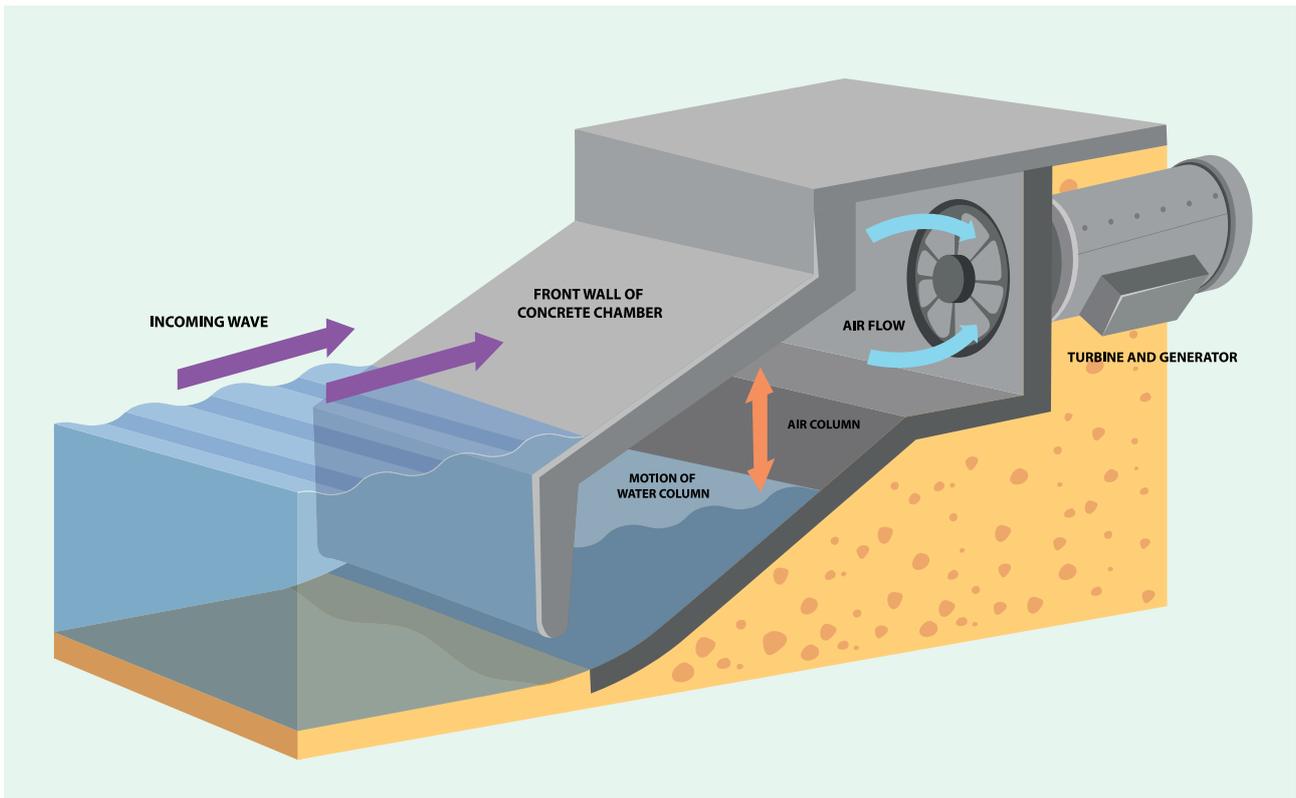
Spain, known for its renewable energy leadership, has also embraced wave energy. The coastlines of northern Spain, including regions like Galicia and the Basque Country, provide ideal conditions for wave energy projects. The Mutriku Wave Power Plant in the Basque Country is one of the world's first commercial wave energy plants, demonstrating the practicality and scalability of this technology. The process of energy production begins with the capture

of wave energy. The plant utilizes a technology known as the OWC (Oscillating Water Column) system, which consists semi-submerged breakwater structure that faces the open sea as shown in the figure below.

As waves approach the structure, they enter a partially submerged chamber at the base of the breakwater. Inside the chamber, there is a large air-filled space above the water level. As the waves enter the chamber, the water level rises and falls, causing the air

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The mechanical energy produced by the air turbines is then converted into electrical energy by the connected generators.”





inside the chamber to compress and decompress. This oscillation of the water column creates a cyclic airflow.

The cyclic airflow is directed through a series of air turbines, which are connected to electrical generators. These turbines are specifically designed to operate efficiently with variable airflow conditions. As the air passes through the turbines, it rotates the blades, converting the kinetic energy of the airflow into mechanical energy. The mechanical energy produced by the air turbines is then converted into electrical energy by the connected generators. The generators consist of a rotor and a stator. The rotation of the turbine blades causes the rotor to spin within the stator, inducing a magnetic field that generates an electrical current.

The generated electricity undergoes power conditioning to ensure its stability and compatibility with the power grid. Transformers and power electronics equipment are used to control voltage levels and convert the electrical output to a suitable form

of grid integration. The conditioned power is then fed into the local electrical grid, providing clean and renewable energy to consumers.

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Currently, the cost of wave energy production in the United States is estimated to be between 15-30 cents per kilowatt-hour (kWh), while in Spain it is estimated to be between 20-25 cents/kWh.

Cost and Economic Viability

While wave energy technology is still evolving, significant progress has been made in reducing costs. Both the

US and Spain are actively exploring ways to enhance cost-effectiveness and drive down the expenses associated with wave energy projects. The cost of producing electricity from wave energy is still relatively high compared with other sources of renewable energy. However, as technology improves and production scales up, costs are expected to decrease. Currently, the cost of wave energy production in the United States is estimated to be between 15-30 cents per kilowatt-hour (kWh), while in Spain it is estimated to be between 20-25 cents/kWh.

Expected Megawatts and Energy Potential

In the United States, the Department of Energy estimates that wave energy has the potential to generate up to 1,170 terawatt-hours per year, which is equivalent to about one-third of the country's total electricity consumption. Spain, with its favorable coastal conditions, has the potential to produce substantial amounts of wave energy as well. As

wave energy technology continues to mature, these projections are likely to become a reality, contributing significantly to the energy mix in both countries.

Advantages of Wave Energy

Wave energy offers numerous advantages over traditional energy sources. Firstly, it is a clean and renewable resource, helping to reduce greenhouse gas emissions and combat climate change. Secondly, wave energy is reliable and predictable, as waves are influenced by factors such as tides and winds. This predictability ensures efficient energy planning and grid integration.



With its environmental benefits, predictable nature, and vast energy potential, wave energy is set to revolutionize power generation

Additionally, wave energy production has a minimal environmental impact. Unlike fossil fuel-based power generation, wave energy does not emit harmful pollutants or contribute to ocean acidification. Furthermore, wave energy projects can be located offshore, reducing interference with coastal ecosystems and preserving marine habitats.

The Future of Wave Energy

The future of wave energy looks promising. Continued advancements in technology, combined with favorable regulatory frameworks and government support, will drive further growth in the sector. Collaborative efforts between industry, academia, and policymakers are key to overcoming challenges and unlocking the full potential of wave energy.

As wave energy projects expand in scale and number, they will contribute to a more diversified and resilient energy mix, reducing reliance on fossil fuels. With increased investment, research, and development, wave energy has the potential to become a significant contributor to the global energy

transition, enabling a sustainable and cleaner future.

In conclusion, wave energy has captured the attention of the United States and Spain as they seek to tap into the vast power of the ocean. As technology advances and costs decrease, wave energy will play a pivotal role in the renewable energy landscape. With its environmental benefits, predictable nature, and vast energy potential, wave energy is set to revolutionize power generation in both countries and lead us towards a sustainable future.



The Value of Due Diligence in Title-deed Acquisition



By Ibrahim Kitoo, Assistant Legal Manager - Projects & Disputes Resolution & Karwitha Mwendwa, Attachee, Legal Services Division & Law Student, Strathmore University

The Supreme Court of Kenya recently ended the case of Dina Management Limited – Vs - County Government of Mombasa and 5 others. At the heart of this petition was the extent of due diligence to be undertaken by any person in land acquisition and more so if one was to benefit under the principle of bonafide purchaser with title. In this case, the County Government of Mombasa challenged the validity of the title for a piece of land situated in Nyali Beach and acquired by Dina Management Limited. The argument was that the suit property was public land, reserved for public use, which the seller of the land to Dina Management had in 1989 unprocedurally and illegally acquired. As such, the County Government, in a bid to create public access to the beach, entered the property, demolishing the perimeter wall facing the beachfront.

Dina Management, being the third owner and citing bonafide purchase for value and with title, challenged this action, arguing that it was not privy to the alleged initial flawed

acquisition by the initial owners. Bonafide purchaser is defined as a buyer without notice of any defects, infirmities, or flaws in its acquisition.

The learned bench, in upholding the decisions of the High Court and Court of Appeal that Dina Limited did not hold a valid title to warrant the right to property protection under Article 40 of the Constitution, clarified that for a title to qualify as valid, it is not enough to produce the instrument of ownership such as title-deed in court. There must be proven efforts, over and above payment of consideration and registration of title, in confirming that the transfer of title to the previous title was formal.

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One must produce to the court, among other documents, a letter of allotment to the Commissioner of Lands
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The Supreme Court riding on the provisions of Article 40(6) of the Constitution providing that the rights under Article 40 do not extend to any property that has been found to have been unlawfully acquired, made a finding that the title to the suit land was issued as a freehold title, contrary to the provisions of the Government Lands Act (now repealed) which limited leases of town plots to no more than one hundred years and that the suit land had been set aside for public purpose, hence it was irregular and illegal to have its ownership transferred for private purposes as was the case here.

In proving title to such land, one must produce to the court, among other documents, a letter of allotment to the Commissioner of Lands for allocation of the land and a part development plan. The previous owner of the land lacked these documents and this stood as an indicator of a faulty title, which could not have been passed to the applicant. Lack of these documents was a fact unknown to the applicant and this was as a



result of not carrying out adequate or due diligence before purchasing the land. The Supreme Court ordered that the land henceforth vests with Mombasa County Government as provided for under Article 62(2) of the Constitution.

Within the same breath of the need for appropriate due diligence and process in acquiring title to land, a three-judge bench in Meru, in the case of Mohamud Kochale & others – Vs - Lake Turkana Wind Power & others recently held that the Lake Turkana Wind Power irregularly acquired the community land where the project sits. The High Court nullified title deeds for the land on which the multi-billion power project sits. Justices Peter Muchoki Njoroge, Yuvinalis Angima and Grace Kemei made a finding that the Constitution was not followed when the 150,000 acres of community land was allocated to the power project. The judges, however, declined to cancel the title deeds, giving the Marsabit County Government, the Attorney-General, the Chief Land Registrar and the National Land Commission one year to regularize the land acquisition

process. The court directed that if the process is not completed within a year, the title deeds for the 310MW power producer will automatically be cancelled and the land will revert to the community.

The upshot of the above decisions and developments in land acquisition is that they raise the bar on due diligence and need for compliance with land acquisition process to a high notch, necessitating that any purchaser, financier and other interest holder/s of land to investigate in detail and establish the root of the title, irrespective of existence of a title, otherwise, any acquisition and title remains defeasible. The due diligence may include, but is not limited to requesting for allotment letter, undertaking routine land searches in land registry, cross-checking with the Ndungu Report on illegal/irregular public land allocations, engaging a land surveyor, among others. This is especially so in respect of land acquisitions for strategic and often high value projects.

The decisions and especially the Dina Management decision demonstrate

a paradigm shift from the hitherto utilised Torrens system in land acquisition to Deed System. Under the Torrens System, acquisition of title serves as conclusive evidence of ownership and is characterized by the principles of: -

- (i) indefeasibility of title;*
- (ii) registration (title ownership is by registration)*
- (iii) the curtain principles – characterized by abolition of notice or exhaustive inquiry*
- (iv) Assurance – compensation upon detrimental reliance.*

Under the Deed System, one is required to check the documents transferring title to the land for several prior transactions and in this case, the purchaser is not entirely supposed to place reliance on the registry records, but is expected to go an extra mile to confirm that the person/s selling the property is/are the rightful owners and that the right process was followed in acquisition. These are both the immediate and the former/initial sellers.



Energy Sector Puzzle

By Agnes Njang'iru, Senior Officer, Communication

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| Z | W | E | D | Q | T | B | Y | A | F | E | H | I | P | S | M |
| A | C | H | A | I | R | M | A | N | T | N | S | J | M | E | A |
| S | O | C | B | N | O | L | K | A | R | I | A | K | O | E | S |
| H | M | O | C | D | S | A | S | K | W | B | B | P | N | D | C |
| W | M | M | M | U | A | I | H | A | B | R | N | L | M | L | X |
| E | I | P | A | C | R | V | M | N | C | U | A | K | Y | I | V |
| K | S | L | W | T | E | A | I | Z | F | T | M | e | H | N | B |
| W | S | A | W | I | W | U | Q | S | N | U | G | n | U | G | G |
| E | I | I | K | O | O | N | U | E | X | R | I | G | N | S | U |
| L | O | N | I | N | P | A | M | J | Y | K | T | e | G | N | A |
| L | N | T | L | A | R | N | I | K | U | W | A | n | E | E | G |
| H | I | S | A | L | O | W | A | T | T | E | R | T | R | W | I |
| E | N | B | S | R | I | L | E | Y | A | L | U | Y | U | K | L |
| A | G | K | I | P | E | V | U | K | U | K | I | M | A | G | E |
| D | M | V | K | A | F | D | I | Y | A | P | P | A | D | A | U |
| S | N | P | P | E | T | F | V | C | O | S | X | W | T | U | O |
| E | L | E | V | E | N | F | D | C | W | N | I | W | D | E | K |
| E | B | G | T | Q | S | Y | Q | S | Q | W | E | G | Y | N | G |
| M | P | F | G | A | D | T | A | G | E | S | B | U | O | M | F |
| I | K | D | I | V | I | D | E | N | D | Z | Q | J | A | S | W |
| L | B | A | B | N | Y | S | G | M | B | N | K | R | P | Y | X |
| L | S | T | T | U | P | I | D | C | E | P | I | D | T | Z | S |
| P | B | M | A | D | N | A | M | Z | W | S | R | T | M | B | X |
| I | M | A | G | E | D | D | E | N | D | T | C | O | W | B | Z |
| F | G | Y | E | A | P | L | E | D | Z | I | P | O | T | E | Q |
| W | Q | R | R | A | Z | Z | W | W | M | U | T | A | X | T | R |

1. Person who designs deals or maintains machines or structures
2. A reward, cash or otherwise, that a company gives to its shareholders
3. A machine that transforms rotational energy that is picked up by a rotator system into energy
4. The unit of power or radiant flux in the international system of units
5. Olkaria III Geothermal Power station is also known as
6. Buzzword for KenGen's 2023 theme
7. Technical process of ensuring that a new power plant is functional according to the requirements
8. Oldest power plant in KenGen
9. Following a re-structuring in the power sub-sector, Kenya Power Company was rebranded as
10. Wonder power
11. Seventh country in the world leading in generation of Geothermal energy
12. The owner's housekeeper
13. First KenGen Managing Director & CEO
14. The lead independent and non-executive Director of KenGen
15. The KenGen board comprises of how many members
16. Onboarding new talents
17. Like a mast, like a Christmas tree
18. Energy Boss
19. The only dam with an arc
20. Main home of geothermal power production
21. Largest hydro-power station in Kenya
22. Communities Of Practice and Innovation
23. Procurement Professional Opinion Reference
24. Only thermal power station in Kenya
25. SDG no 1 states NO?
26. ISO 14001:2015 describes
27. 4th item of the company's service delivery charter
28. Immature trees
29. KenGen corporate colors include Purple, Orange, gray and?
30. KenGen's security company

Strategic Partnerships through Sustainable CSR Programs



By Ernest Nyamasyo, Communication Officer – KenGen Foundation



Globally, smart companies now recognize CSR as an opportunity to significantly strengthen their businesses while building and renewing human, social and natural capital. Business partnerships, especially in the area of collaborative Corporate Social Investment (CSI), are increasingly being factored as a strategic priority for many corporate organizations. This is because they bring different perspectives and successful models to the common table of partnering organizations.



The Schools' Green Initiative Challenge (GIC) is a unique project, with the main objective being the greening of over 460 acres in the semi-arid counties of Embu, Kitui and Machakos with Mukau (M. Volkensii) and Muveshi (S. Siamea) tree species as a way of mitigating climate change, providing wood fuel and alternative income opportunities for the local communities.

Finding the right partner is absolutely critical to the success of a CSI strategy. Apart from concentrating on CSI activities in areas where their core business interacts with the society for maximum benefits, smart companies also focus their efforts on finding the right partnerships for multiple mutual benefits.

Not every organization that comes knocking can make the right partner. If it is not possible to identify the long-term or tangible benefits of a partnership, or if most of the benefits are one-sided, then discussions must be concentrated on the significant mutual value to be created through such an opportunity.

The magic that can come from the meeting of like-minded organizations can really be inspiring – as is the case of the School's Green Initiative Challenge, a 10-year partnership between the KenGen Foundation, Bamburi Cement Limited and Better Globe Forestry.

The Schools' Green Initiative Challenge (GIC) is a unique project, with the main objective being the greening of over 460 acres in the semi-arid counties of Embu, Kitui and Machakos with Mukau (*M. Volkensii*) and Muveshi (*S. Siamea*) tree species as a way of mitigating climate change, providing wood fuel and alternative income opportunities for the local communities.

The project is designed as a competition amongst the participating institutions for the highest seedling survival rates through the application of various innovations at the schools' woodlots.

The GIC involves schools nurturing the drought resistant trees to maturity, with the best performing schools benefiting from education

scholarships, school trips, infrastructural development and cash awards. Currently, there are 120 schools from the three counties taking part in Phase II of the competition, set to end in 2018, with 99 new schools enrolling this year.

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Finding the right partner is absolutely critical to the success of a CSI strategy.

Better Globe Forestry, a Norwegian afforestation company that focuses on poverty reduction through massive tree-planting and sustainable agricultural programs, microfinance schemes, educational programs and water supply for rural communities, offers technical support and provides the tree seedlings for the program, while Bamburi Cement, a subsidiary of LafargeHolcim, the world leader in building materials, equips the GIC schools with infrastructural support and education scholarships.

Environmental club patrons, dubbed “Green teachers,” are also involved in the competition. Apart from undergoing training in tree and nursery management, the most innovative teacher from the three counties also benefits from a grand prize.

The afforestation competition is in line with the Government of Kenya's Vision 2030 to achieve 10% forest cover across the country and also aims to raise the awareness and participation of school children in environmental conservation activities.

Through the setting up of woodlots in participating schools, the GIC partnership acts as a change agent within the communities to establish a tree-planting culture for multiple benefits in dry-land areas. The sustainable management of tree nurseries and woodlots provides the participating schools and surrounding communities with a renewable source of wood fuel, thus reducing pressure on surrounding vegetation and forest resources.



Tembea Kenya



By Andrew Muturi



The River Kathita waterfall at Gitwiki, also known as “Ntontanii” waterfall, is a mesmerizing, unique, scenic and interesting site. The waterfall is very close to another small one from River Mpuri which makes them look like they were joined together by nature. The twin waterfalls are less than one

kilometer from Meru town center, through Mwendantu road on your way to Milimani, Kinoru, Giantune and other places beyond. The locals call the waterfall “ndurumo ya M’ntanii.”

Ndurumo in the local dialect, is a waterfall. M’ntanii was the first

person to have settled near the waterfall. His piece of land extends all the way to the waterfall. The whole region where the twin waterfalls are situated is popularly known as “Gitwiki” in reference to a landslide that occurred there about five decades ago.

Can Social License To Operate Be Tangible?



By Philip Mukusya, Assistant Manager – Community Relations



The founding fathers of KenGen, close to a century ago, lived the KenGen's recently launched internal corporate theme, especially the part which states, 'I do the right thing, right.' They did the right thing, right at MESCO Power Station, where in its century of operation, there is peaceful co-existence between the power station and the surrounding communities. Other than the power plant being a masterpiece of engineering, it is a grand mullah of community and corporate relationship, a story which

can be evidently told by a walk along the open tunnel that gets water from River Maragua to the power plant.

The water in the tunnel passes through farms, irrigating banana plantations on its way to the machine to generate energy. The walk along that tunnel is timeless as it tells the past, the present, and the future of community and corporate relations. Despite that close interaction between the station and the community, peace abounds.



From Mesco hydropower plant, the company has done exploits in Seven Forks and Sondu Miriu, with the communities in those areas accepting the company as their neighbour of choice.

Seventy years in the business of energy generation, the spirit of doing the right thing has not dimmed. The company has become the consulting corporate of choice for countries and investors who want to venture into energy generation. This can be confirmed by the company's footprints in this region and the caliber of visitors who tour the company facilities.

The company's culture, and adherence to its mandate, vision, and mission, have given it the charm to be accepted legally and socially to safely exploit generation resources. The government and financiers know it is a sure bet to invest in KenGen, while communities know it is a dawn of a good neighborhood to have KenGen among its neighbors.

The company's resources for energy generation include Geothermal, where it has expanded exponentially in Olkaria and its geothermal-rich environs with the full support of the indigenous communities.

From Mesco hydropower plant, the company has done exploits in Seven Forks and Sondu-Miriu, with the communities in those areas accepting the company as their neighbour of choice. At Ngong Wind Farm and the upcoming Marsabit Wind Project, KenGen is welcome. At Garissa Solar and other areas, the company is courageously exploring the possibility of more resources and getting a positive ear.

KenGen does not shy away from approaching these communities as new grounds because it has what it takes to exploit the resources for the benefit of the country while interacting with different communities in a harmonious way. The secret behind the success of venturing into new grounds is self-

disclosure during engagements. We tell it as it is without mincing words about our projects because communities are intelligent and, when given the right information, make the right decisions.

KenGen has placed a premium on the communities by establishing a community relations division with a mandate to establish and enhance relationships with communities in its areas of operation to gain acceptance and a Social License to Operate (SLO). Guided by the company's promise to adhere to the findings and intervention measures from environmental and social impact assessment, communities become owners and defenders of the projects.

The company designed tools like the Corporate Social Responsibility Policy Community Engagement Strategy and Grievance and Complaints Handling Mechanism to help in cementing relations with communities. This has helped the company fit well and feels welcomed in seemingly hostile areas, as stakeholders make sure the SLO is written in the air.

SLO is not a physical document, but a perception that one will play per certain rules and a mutual relationship develops. Though it is intuitive, it has all the hallmarks of a physical license. It is achieved after several interactions where trust and a sense of responsibility develop.

In the strict sense, SLO refers to the ongoing acceptance of a company's or industry's standard business practices and operating procedures by its employees, stakeholders, and the public. It is created and maintained slowly over time as a company builds trust with the community in its areas of operation and other stakeholders.

To gain and protect social license, a company should be seen as doing the right thing. According to sociallicense.com, there are three key elements in gaining a social license:

a) Social Legitimacy:

This is based on established norms of the community that may be legal, social and cultural, and formal and informal in nature. Companies must know and understand the norms and be able to work with them as they represent the local 'rules' of the game.

b) Credibility:

The capacity to be credible is largely created by consistently providing true and clear information and complying with all commitments made by the community. Credibility is often best established and maintained through the application of formal agreements where the rules, roles, and responsibilities of the company and the community are negotiated, defined, and merged.

c) Trust:

Trust or the willingness to be vulnerable to the actions of another is a quality relationship that takes both time and effort to create. True trust comes from shared experiences. The challenge for the company is to go beyond transactions with the community and create opportunities to collaborate, work together, and generate shared experiences within which trust can grow.

The company's long-time experience in doing business with communities has proven beyond doubt it operates within the above premises of a social license. The communities within its areas of operation have owned the projects and accepted KenGen as part of them.

Generating Money by Solving the Waste Problem



By James Obondo



Dear readers, let me start by indicating that this is my maiden article in this envisaged top-notch magazine - Energy Post. This requires that items here must also be top-notch and different from the regular sister internal publication - KenGen Weekly. For this reason and more, I have attempted to get technical to reflect that school of thought.

I have elected to put KenGen above all and pen something about its core business of **Generating Money**. For starters, let us nod in appreciation that on June 7, 2023, KenGen was

“
This big news tells us that we are here to make money for the shareholders. We have successfully done that in the past. How do we make that money?
”

reported in mainstream media outlets as paying the government **Ksh.1.4 billion** dividends from 2021 company earnings. The story mentions that KenGen Board Chairman, Julius Ogamba handed over the money to the National Treasury as a dividend for the financial year ended June 2022, following a recommendation by the KenGen Board to the shareholders during an Annual General Meeting held in December 2021 for the payment of a first and final dividend of Sh0.30 per ordinary share.

This big news tells us we are here to make money for the shareholders. We have successfully done that in the past. How do we make that money? **By efficiently generating competitively priced electric energy, using state-of-the-art technology, and skilled and motivated human resources, to ensure financial success.**

This article is shaped to focus on simple cost-efficiency practices that automatically ensure the company's financial success. We shall pick on **Solving the Waste Problem**. Yours truly first got into contact with the Solving the Waste Problem concept from one of our Engineers, Joshua Nyandika not long ago. The articulate Joshua brought out this entirely new concept that yours truly and probably some others had never come across, dubbed **TIMWOODS**. This is largely the panacea for **Solving the Waste Problem** that ensures KenGen's financial success. Let us breakdown this peculiar acronym **TIMWOODS**:

- T - Transportation**
- I - Inventory**
- M - Motion**
- W - Waiting**
- O - Overproduction**
- O - Overprocessing**
- D - Defects**
- S - Skills Underutilized**

Here, we are not going to look at waste in terms of garbage, trash, or rubbish, but a deeper concept. We shall seek to see the qualitative, not quantitative type of waste and waste in terms of time, money, manpower, resource misplacement, and reputation.

Let us take advantage and attempt to further break these down. These eight letters are the bedrock of waste. These are activities, tasks, or processes that do not add value as

defined in the 'eyes' of your internal customer.

Let us take a quick glance at the first waste identified in **TIMWOODS** as **Transport**. We may just call it **Movement**. We have often seen unnecessary movement of parts, equipment, material, and information in our system.



What are the causes of this wasteful overstocking? Lack of planning again comes quickly to mind, but we also see the fear of the procurement process. We want to do all our procurement in one go! Inventory hides all other waste and can be very costly if not optimized.

We are largely an engineering outfit and aware that there are some movements that may be necessary, but the customer will not pay you to do. No movement occurs without a cost, meaning that you spend resources on activities with no returns. We are also aware that there are some movements that cannot be eliminated altogether, based on the current state of technology and yet they have become a constant activity in our operations.

What are the causes of these unprofitable movements? Lack of planning and coordination quickly come to mind.

Let us look at the second waste in **TIMWOODS**—**Inventory**. These are stock, stores, or supplies we hold. This is how it works - we stock items in huge quantities, some of which we shall/may use in small quantities or not even use at all. We eventually end up with dead stock in our stores. In reality, it does not sound smart or prudent.

In other realms, we call it a primitive accumulation of wealth! What are the causes of this wasteful overstocking? Lack of planning again comes quickly to mind, but we also see the fear of the procurement process. We want to do all our procurement in one go! Inventory hides all other waste and can be very costly if not optimized.

I will skip the third waste - **Motion** because I did not understand it well. Let us get to the fourth waste. This is **Overproduction**. Overproduction is an overrun. In our context, it may just mean producing more than the customer wants or ordered. This can be a product, service, or even just data. It sounds like overcooking or serving more than paid for or ordered by our customers.

You may want to find out for yourself whether this is a regular occurrence in our generation process. Do we generate more power than what the off-taker Kenya Power requires? At what cost? Do we submit more detailed data than a regulator may require in the name of transparency and to be seen to be on top of our game? Do we request more than necessary personal details from our employees? This is overproduction.



Now what? Greater opportunity for improvement lies in focussing on eliminating non-value-add activities (Waste) and improve or reduce unnecessary non-value add processes. We should focus on activities the customer is willing to pay for or pay more if we did more. We do not need to give out free things simply because we have an unlimited capacity and uncostly production opportunities. There is always the unhidden cost!

Let us see another waste: **Overprocessing**. This means that we may process more than the customer needs or is willing to pay for. It is to process something too much or even handle it too often or for too long. It can also mean adding more value to a product than the requisite specs. In simple commercial terms, this means that the cost of production of an item far exceeds the selling price! Here there is no value for money!

Let us take a look at the next waste – **Defects**. These are flaws or deficiencies, imperfections or faults, or simple shortcomings in a product, work, or service. These are those things that are nonconforming to either customer requirements or process specifications.

Let us spare engineering trade here and get to the soft trades in the organization. Let us look at defects just as a deficiency in service delivery. Our service charter requires the fulfillment of certain obligations to our customers within specified timelines. If these timelines are not met, then the service is defective. It is this simple!

The last waste we shall tackle is that of **Skills Underutilized**. Immediate understanding of this type of waste is twofold: not fully utilizing skills in possession and *using more skills than the task requires*. **Underutilize** is to utilize less than fully or below the potential use. Skills are proficiencies or aptitudes individuals have.

This last one sounds straightforward. We shall run with it as it is easier to relate with. A motor vehicle is a piece of engineering ingenuity, but does not require an engineer to drive it! Thus, employing an engineer as a driver is what using more skills than the task requires means in this context. It is that simple. It may also mean that engineers' participation in a procurement process should only appear in specifications run through stage and tender evaluation, but NOT tender opening!

So, what do we do? We need to have an approach that helps reduce and/or totally eliminate waste and optimize productivity. This requires wearing the business owner's mentality in all our functional and operational decisions. We are constantly expected to get mathematical in our

judgments – calculating cost against benefit.

Now what? Greater opportunity for improvement lies in focusing on eliminating non-value-add activities (Waste) and improving or reducing unnecessary non-value add processes. We should focus on activities the customer is willing to pay for or pay more if we did more. We do not need to give out free things simply because we have an unlimited capacity and uncostly production opportunities. There is always the unhidden cost!

We should likewise focus on ensuring that our activities are done right the first time. Repeat jobs are the mother of all waste in any production or process chain. Take, for instance, the insertion of an incorrect specification in an advertised tender. It is appalling that this simple mistake results in additional spending on addendum costs.

Edwards Deming “It is quick to assign blame to an individual when the problem is in fact, a fault in the system.” Let us panel-beat our system

Gitaru Hydro: A Blend of Dedication and Innovation



Dennis Wangariria Muya, Senior Engineer - Electrical

One captivating evening on August 2, Hydro Plaza buzzed with activity, defying the usual serenity of that hour. Eastern Region united to commemorate a monumental victory, the triumphant conclusion of rehabilitation efforts that had rendered Unit 2 of the mighty Gitaru Power Station offline for several weeks. What had initially sprouted as an idea, germinated through the deliberations of brilliant minds, blossomed to reality. This was a moment that beckoned the shedding of grey overalls and sturdy boots and donning of dancing shoes in celebration of the successful rehabilitation project. A well-deserved accolade awaited the entire team, which comprised of both operational and non-operational employees from diverse regions, whose collective prowess had achieved this remarkable success.

A mere glance at Gitaru today belies its recent state, a bustling hub of activity just a month prior. A tireless team, encompassing both dedicated employees and diligent contractors, worked round the clock to restore 71.5MW to the national grid. The journey of Gitaru Unit 2, entailing extensive rehabilitation throughout much of June, reached a significant milestone at 6 pm on July 16, when it synchronized with the grid for the first time, using a generator circuit

breaker. At 4 am on July 19, Unit 2 was declared available once more.

This article aims to shed light on and honour the impressive milestones and achievements realized by a collaborative team from various business sectors including Olkaria, Western Region, Upper Tana and notably, all Hydro Stations within the 7 Forks Cascade. The extensive rehabilitation journey incorporated a broad spectrum, ranging from revamping the Electrical Control Panel (ECP) in the Powerhouse, introducing a new protection system in the switch room, to the installation of the Generator Circuit Breaker and Station Transformer in the substation.

The meticulous journey to revamp the Electrical Control Panel included design, assembly, rigorous testing, seamless commissioning and integration into the Unit's automation system. This monumental feat stands as a testament to unwavering resolve and meticulous planning, representing the very first panel assembled entirely by KenGen. What was once confined to blueprints has now evolved into the lifeblood of Gitaru Unit 2, a transformation that embodies the collaborative efforts of the Electrical and Automation Division, Eastern Region. Through relentless dedication, this endeavor

has breathed new vitality into our operational core, elevating its reliability to unparalleled heights. The methodical restoration of controls has yielded a robust system, immune to errors and inefficiencies. Celebrating this milestone, we revel in the newfound ease that automation ushers in. Complex tasks flow seamlessly at the press of a button, effortlessly merging human ingenuity with technological brilliance. This era of automation not only marks the pinnacle of our innovation, but propels us towards a future where reliability and plant availability dance harmoniously.

As the team toiled over the ECP Panel in the powerhouse, others diligently tackled the protection system in the switch room. A pivotal move towards modernizing our power plant infrastructure and augmenting operational efficiency was the replacement of traditional electromechanical relays with advanced numerical relays. Decommissioning these relays was not merely a necessity, it was a visionary stride. The transition from tried-and-true electromechanical relays to cutting-edge numerical counterparts signifies a host of benefits that redefine how we manage and safeguard our power plant assets – from transformers to generators. With these relays



in service, enhanced reliability and responsiveness are assured, translating to seamless operational continuity and optimized power generation – our core mission.

Another remarkable achievement emerged with the introduction of the Generator Circuit Breaker (GCB), nestled within an Electrical House in the substation, aptly known as the E-House. This innovation not only distinguishes Gitaru Power Station within KenGen, but also elevates its standing within the industry. The E-House houses the equipment that connects 15,000 Volts of generated power to the Step-Up Transformer for national distribution. The GCB revolutionizes our electrical infrastructure, augmenting safety, reliability and operational flexibility. Beyond disconnecting the generator during grid faults, it prolongs the

transformer's life by allowing it to be energized before grid connection, conserving resources. Moreover, the E-House, along with insulated busbar connections, eradicates the notorious occurrences of animal-induced outages, ensuring safety.

The installation of a station transformer, seamlessly integrated into the existing system, marks a significant leap towards fortifying station auxiliary power supply. This milestone empowers Unit 2 to contribute to station loads, curtailing reliance on external sources and reducing costs.

Highlights of the project include:

1. *Introduction of a Synchronizing Generator Circuit Breaker: This groundbreaking addition establishes a synchronizing connection between the*

generator and the step-up transformer, accompanied by the erection of a new E-house at the substation.

2. *Signal Interfacing and Cable Laying: Over 2000 signals were meticulously interfaced with the control system, a pivotal feat, ensuring seamless unit operation. A monumental task involved the precise laying of over 15 kilometers of varying-sized cables to diverse destinations, guaranteeing immaculate termination.*
3. *Inauguration of Pioneering Control Panel: KenGen's electrical and automation experts orchestrated the design and implementation of the first-ever control panel. Serving as the linchpin for all electrical systems*



within the unit, this panel invigorates its safe and reliable operation, while substantially curbing engineering costs.

4. *Knowledge Transfer and Skill Augmentation: Experienced staff facilitated knowledge transfer through on-the-job training, enriching diverse job cadres. The collaboration of craftsmen, technicians and engineers ensured accurate signal termination, seamless implementation of modifications and effective skill dissemination, thereby augmenting the company's capacity.*
5. *System Rehabilitation and International Standard Conformance: A comprehensive*

system rehabilitation was undertaken to align with international standards, fortifying the project's foundation.

6. *Digitization of Analogue to Digital Transformation: The evolution from analogue to digital was realized through the digitization of the previously analogue system. This transformation enhances operational and maintenance effectiveness by providing enriched information. Virtually all process, environmental and system data from the new systems are integrated into the digital infrastructure. This visionary move paves way for an operationally*

transformative landscape, ensuring the futureproofing of our infrastructure.

This achievement is a testament, not only to our commitment to uninterrupted power delivery, but also to the synchrony between local expertise and external collaboration. As we celebrate this feat, we recognize the pivotal roles that meticulous planning, rigorous testing and seamless integration play in fortifying our systems against contingencies, assuring an unwavering power supply for our nation. This is a celebration of progress and a reminder that even in the face of challenges, innovation and determination prevail.

POEM

My Message to The Energy Sector

The energy sector, a wealth machine,
Powering Kenya's economic growth.
The heartbeat of every sector's activities.
When it fails, the nation dies.

I salute policymakers, steadfast in their leadership.
And those who work hard to light up our days.
Always walk with your shoulders high,
For participating in this noble cause.

Everyone in the sector, pat your back,
For the great milestones, you have achieved.
Then gear up to continuously,
Improve the sector and power our freedom.

Let all in the sector play their role effectively,
Ensure we have reliable and affordable electricity.
Embrace new industry trends and innovation,
Meeting ever increasing energy demand, our purpose in view.

By Tsim Mavisi Attachee - Marketing and Corporate Communication division.



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