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# **FOREWORD**

Dear ZARENA members, Partners, and Stakeholders, as we embark on another promising year, the Zambia Renewable Energy Association (ZARENA) remains committed to driving impactful change in the renewable energy sector.

The first quarter of 2025 has set a strong foundation for our continued efforts in advancing sustainable energy solutions that support Zambia's economic growth and climate resilience.

This quarter has been marked by strategic partnerships and capacity-building initiatives aimed at unlocking new opportunities for renewable energy adoption.

Furthermore, ZARENA has intensified its knowledge sharing and skills development programs to empower the next generation of energy leaders. This newsletter provide insights into our ongoing partnerships, projects and the collective efforts of our members who are shaping the future of energy in Zambia.

We invite you all to remain committed, contribute your expertise and be part of the clean energy movement. Together, we can make renewable energy not just an alternative, but the driving force behind Zambia's sustainable development.



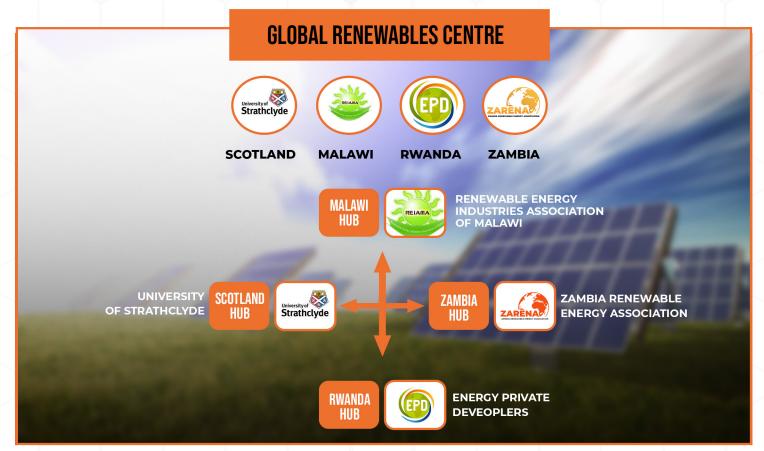
#### STRATEGIC PARTNERSHIPS

#### ZARENA AND THE GLOBAL RENEWABLE CENTRE

As part of our vision to position Zambia as a hub for renewable energy knowledge sharing, the Zambia Renewable Energy Association (ZARENA) has established a strategic partnership with the Scottish Global Renewables Centre (GRC) a collaboration that aligns with its mission to promote sustainable and accessible energy for all.

The GRC, funded by the Scottish Government through Strathclyde University serves as a vital platform for knowledge exchange, networking, and capacity building between stakeholders in Zambia, Rwanda, Malawi, and Scotland. The GRC is a timely intervention to promote north-south and south to south knowledge exchange in promoting clean energy access, innovation, climate change adaptation and mitigation. By fostering shared learning and collaboration, the initiative enhances global citizenship and accelerates the deployment of sustainable energy solutions, particularly in developing economies.

Through initiatives like the GRC, Zambia is not just benefiting from global expertise but also contributing to the global renewable energy dialogue.



ZARENA remains committed to driving impactful change in the renewable energy sector and ensuring that clean energy solutions are accessible, sustainable, and economically viable for all. The continued collaboration with GRC, provides a platform for ZARENA to deliver and accelerate toward a resilient, green and energy-secure future.

#### **DRIVING ENERGY ACCESS AND INVESTMENT**

#### ZIM-ZAM SUMMIT

ZARENA participated at the Zimbabwe-Zambia (ZIMZAM) Energy Projects Summit held in Victoria Falls, zimbabwe in November, 2024. The ZIM-ZAM Energy Projects Summit served as a strategic meeting ground for government ministries, utilities, regulators, international investors, and development finance institutions. The summit, provided a crucial platform to explore innovative financing mechanisms, cross-border collaboration, and infrastructure development to address energy challenges in both countries.

ZARENA's Chairman **Prof. Joseph Mutale** joined an esteemed panel of industry leaders to discuss Blended Finance and Energy Access Solutions. Sharing the stage with experts such as Paul Van Aalst (GET.invest), Felisters Makumbinde and Alex Mbumba (Rural Electrification Agency), Collin Gumbu (GOGLA), and Richard Harrison (TheRockefeller Foundation), Prof. Mutale highlighted key strategies to unlock sustainable energy investment in the region.

He emphasized the need for a robust national intelligence team to ensure the timely execution of projects and advocated for a specialized procurement firm with expertise in international transmission projects to enhance transparency and structure.

A key focus of his discussion was the development of an implementation framework prioritizing open access, with an independent system operator and market operator to streamline system application trading.

Addressing the financial constraints that have historically slowed progress, he underscored that Zambia can no longer rely on sovereign guarantees due to conditionalities, stressing the need for alternative risk mitigation mechanisms to facilitate successful financing.

As Zambia and Zimbabwe continue to make structural reforms to attract investment, ZARENA continues to leverage on partnerships and collaborations that will drive a sustainable, resilient and inclusive energy future for both nations.



#### PARTNERSHIP AND COLLABORATION

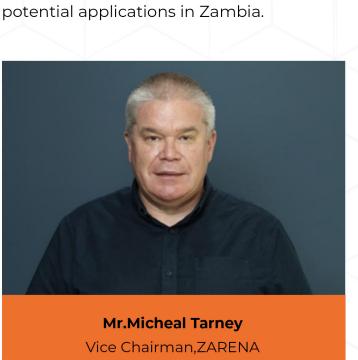
# ZARENA HOSTS FINNISH DELEGATION TO FOSTER RENEWABLE ENERGY COLLABORATION

ZARENA had the distinct honor of hosting the Ambassador of Finland, Her Excellency Saana Halinen, and the Deputy Mayor of Tampere, along with a distinguished Finnish delegation at our offices.

This visit provided an invaluable opportunity to discuss circular economy collaboration and explore innovative pathways for advancing renewable energy and sustainable development in Zambia. The exchange of insights and expertise reaffirm our shared beliefs in partnership

and collaboration in fostering green solutions that drive economic and environmental progress.

ZARENA Vice Chairperson, Mr. Michael Tarney, led the discussion with the Finnish delegation were both parties exchanged insights on energy landscape in Zambia and Finland. ZARENA was particularly inspired Finland's by progressive advancements in renewable circular economy models, and innovative technologies. Learning about green Finland's initiatives in waste to energy solutions, energy efficiency strategies, and policy-driven renewable energy adoption provided valuable perspectives on potential applications in Zambia.









#### PRODUCTIVE USES OF ENERGY

#### SOLAR FOR AGRICULTURE PROJECT



ZARENA Team (in black) standing with Kazungula District Commissioner, Mr Siambila (in red)

## THE KAZUNGULA DEMONSTRATION PROJECT.

As part of our commitment to knowledge exchange and capacity building in renewable energy. In the last quarter of 2024, ZARENA undertook a fact finding mission to assess the potential of solar-powered irrigation for sustainable farming in Kazungula District.

The Team led by Dr. Chilala Bowa and the scottish delegate Dr. Aran Eales visited the Mukuni palace and the kazungula DC office to ensure that all stakeholders understand the mission. Mr. Siambila highlighted the challenges the district was facing as the result of drought that hit the area.

Eng. Fay Matongo, agricultural engineering expert, conducted soil sampling using the zigzag method for soil analysis. The samples were collected from three sites identified by local community members in Sichombe, Mukuni, and Chilimbana villages.

Key findings from the feasibility study highlight Scalability of solar irrigation, Economic benefits. and Sustainability impact.

Beyond it's direct benefits, this project will serve as a demonstration site, show casing replicable solar-powered agricultural solutions for neighbouring villages, government institutions and private sector stakeholders, promoting adoption productive uses of energy in agriculture.

This study sets the stage for the next phase of implementation, bringing clean energy driven agriculture transformation closer to reality. By bridging the energy gap in agriculutre, ZARENA continues to position renewable energy as a key driver of Zambia's rural economic development.



ZARENA Team (in black) with Queen Veronica Mukuni at the Royal Palace, Mukuni village.

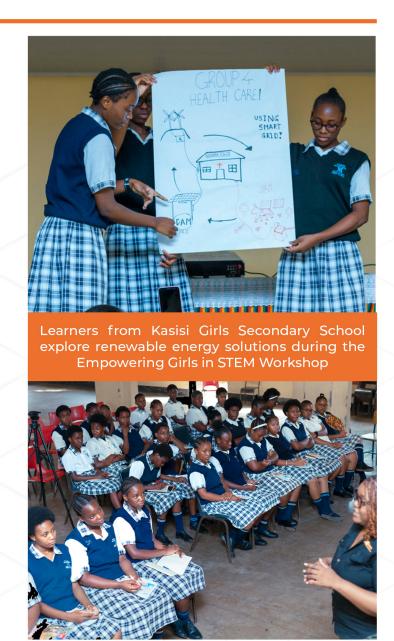
#### GIRLS IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

KASISI GIRLS RENEWABLE ENERGY & INNOVATION WORKSHOP

ZARENA continues to inspire the next generation of renewable energy leaders. To champion this, the association held the Empowering Girls in STEM: Renewable Energy & Innovation Workshop at Kasisi Girls Secondary School. The workshop under the theme "Igniting Young Minds: Innovating for a Sustainable Future," attracted 5 science teachers and 55 bright young minds from the Junior Engineers, Technicians, and Scientists (JETS) Club.

interactive workshop introduced learners to fundamentals of Zambia's energy landscape and practical clean energy solutions. More than just a learning session, it was an opportunity to spark problem solving. and creativity. entrepreneurship among the learners equipping them with skills to develop sustainable solutions for real-world challenges. This workshop was just the beginning of broader effort to bridge the gender gap in the energy sector as well as equipping girls with the knowledge and





confidence to pursue careers in clean energy and engineering. By breaking problems down into Situation,

Challenges, Alternatives, Mitigation, Plan, and Action (SCAMPA) the students tackled energy-related issues in agriculture, healthcare, mobility, and waste management with remarkable creativity.

The future of renewable energy must be inclusive, with more young women stepping into leadership roles in science, technology, engineering, and mathematics (STEM).

#### **EMPOWERING MINDS: ADVANCING RENEWABLE ENERGY IN ZAMBIA**

#### ZARENA'S MENTORSHIP PROGRAMME KICKS OFF

ZARENA officially launched its first-ever Mentorship Programme, an initiative aimed at nuturing the next generation of renewable energy leaders. With an overwhelming response from young professionals and students, the programme kicked off it's first cohort in February 2025.

This inaugural mentorship cohort structured for 90-day consisted of 40 mentees and 20 mentors. Through this mentorship and skills development programme, ZARENA is laying the groundwork for a future where youths are not merely participants but key drivers of the just clean energy transition.

This initiative not only equips young professionals with technical expertise, leadership skills, and industry insights but also fosters a culture of collaboration, research, innovation, and problem-solving in the renewable energy sector.

#### LOOKING FORWARD.

The first cohort stands as a flagship achievement, marking the successful completion of the inaugural programme. It celebrates the progress and accomplishments of both mentors and mentees while offering fresh opportunities for those eager to grow in the renewable energy sector.

### JOIN ZARENA.

Interested in joining? Whether as a mentor or mentee, we encourage you to apply for future cohorts! ZARENA is committed to expanding this programme to cultivate a strong, skilled workforce ready to drive the clean energy transition.



#### WOMEN-LED COOPERATIVES

#### SOLAR SYSTEM MANAGEMENT WORKSHOP IN MUMBWA

The Supreme Women's Multi-purpose Cooperative was established to empower small scale farmers under the Kalomo grains initiative. The cooperative boasts membership of over 3,500 individuals engaged in outgrower schemes cultivating crops such as soya, sunflower, and maize.

Their solar-powered mill processes maize into mealie meal, while a solar-driven oil extraction machine enables them to add value to their produce by extracting oils from sunflower and soya beans. However, a lack of technical expertise posed a challenge in maintaining the solar infrastructure, prompting the need for this specialised training in a bid to



enhance rural energy sustainability, our team successfully conducted a Solar System Management Workshop for the cooperative in Mumbwa District. This training targeted 30 key technical personnel, mostly women and youth, equipping them with the knowledge and skills to maintain, troubleshoot, and optimise their 45 kWp solar power system. The workshop provided both theoretical and hands-on training covering Solar system operation ,Battery maintenance, Safety protocols and optimising energy use.

The solar expert **Mr Chola Kalunga** founder of **Chinja Energy enterprises Itd** Led the practical training, guiding participants through system troubleshooting, shutdown and restart procedures and battery management techniques. **Eng. Dylan** ran the community through the safety procedures and **Eng. Chilala Kakoma Bowa** spoke to the need to ensure the system sizing and usage is adhered to for the people to enjoy the facility.

This story highlights the power of renewable energy in transforming rural livelihoods, and ZARENA remains committed to expanding such training programs to ensure more communities harness the full potential of solar energy.







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#### **ZARENA WEBINARS**

#### KNOWLEDGE SHARING AND CAPACITY BUILDING IN ACTION

In line with our ongoing efforts to promote knowledge exchange and capacity building, ZARENA has organized a series of webinars focusing on key topics in renewable energy. These events are designed to empower stakeholders, enhance critical skills, and drive innovation within Zambia's energy sector.

ZARENA's first webinar of the year explored the critical topic of Solar PV Development in Zambia. The session delivered comprehensive insights into developing feasible and bankable solar power projects, featuring expert presentations and interactive discussions.



#### WEBINAR HIGHLIGHTS

The event began with a detailed Feasibility Study for Solar PV Power Plants, covering aspects such as site selection criteria, resource assessment, financial and technical feasibility analysis, and regulatory considerations.

**Eng. Suzyo Silavwe,** Manager Off Grid Systems at the Rural Electrification Authority shared practical approaches to undertaking feasibility studies.

**Dr. Aran Eales,** Research Associate at the University of Strathclyde shared on the essential components for creating bankable business plans, financial models, and risk assessments. The speaker also highlighted strategies for securing stakeholder buy-in, navigating funding obstacles, and enhancing market penetration.

The webinar on financial and technical feasibility analysis equipped participants with essential skills to assess project viability through structured analysis of key factors such as market demand, technical feasibility, financial sustainability, and risk.

The sessions underscored the value of feasibility studies in driving informed, strategic decisions. Speakers shared real-world case studies and responded to audience questions, offering valuable guidance for aspiring project developers.

All Participants are encouraged to stay connected and look out for more impactful webinars, seminars and capacity-building opportunities from ZARENA

#### **COMMUNITY OF PRACTICE**

#### WOMEN-LED ENERGY ENTREPRENEURS WORKSHOP

The 2025 International Women's Day under the theme "ACCELERATE ACTION FOR ALL WOMEN AND GIRLS: RIGHTS, EQUALITY & EMPOWERMENT." ZARENA partnered with the Zambia Gender and Energy Network (ZGEN) under the Ministry of Energy to host a transformative Capacity Building Event on 14 March, 2025.

The workshop focused on Financing Opportunities for Energy Sector Small and Medium Scale Enterprises (SMEs) – especially those led by women. Held as a half-day event, this workshop featured engaging presentations, group exercises, exhibition stands and interactive discussions all aimed at promoting gender equality and financial literacy within the energy sector. Esteemed speakers from the Ministry of Energy, Stanbic Bank, World Bank, Greenbelt Energy and more shared their insights on inclusive growth and financial accessibility.

The event successfully highlighted the essential role women play in the energy sector and the importance of accessible financing. Through collaborative discussions, participants shared ideas on how government private sector and financial institutions can work together to remove barriers limiting women's participation.











ZARENA & ZGEN accelerate women's empowerment in energy with a capacity-building workshop on SME financing, driving equality and inclusion in Zambia's energy sector.

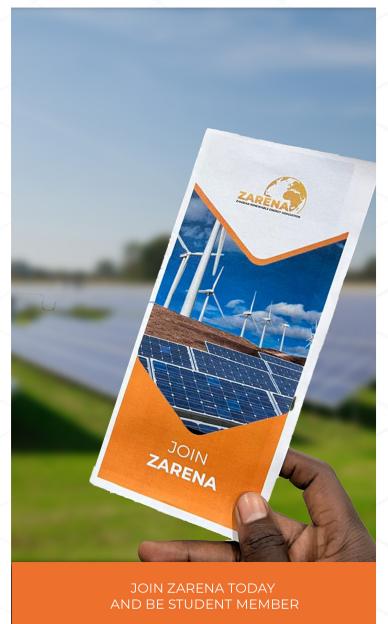
#### MEMBERSHIP OUTREACH

#### UNZA BENG ORIENTATION PROGRAMME

ZARENA actively participated in the University of Zambia Engineering Society (UZES) BEng Orientation Program during Youth Week.

During the orientation session, the UZES leadership led by Mr. Mwansa wabalika had the opportunity to introduce ZARENA to second year students at the school of engineering and the importance of industry involvement in the school. The session covered topics related to the energy movement, SDG 7- Affordable and Clean Energy and the critical role of youths in driving sustainable change in the country.

**Eng. Fay Matongo** spoke to ZARENA's Vision, Mission, Goals and emphasised the importance of the students passion, creativity and dedication in accelerating Zambia's progress towards achieving Agenda 2030. The students were encouraged to actively participate in renewable energy initiatives and innovative projects to contribute to a more energy-secure and sustainable Zambia.









#### **MEET THE TEAM**

#### POWERING THE FUTURE, TOGETHER

As we conclude this inaugural edition of the ZARENA Newsletter, we extend our deepest gratitude to our sponsors, members, partners and all stakeholders for your unwavering support and dedication to advancing renewable energy in Zambia.

ZARENA has taken significant strides in implementing its workplan, strengthening international partnerships and driving critical conversations on energy access and financing. We remain steadfast in our commitment to building an energy-secure Zambia.

Moving forward, let us continue collaborating to innovate, advocate and implement solutions that accelerate sustainable development. The journey toward a greener future is a collective effort and every milestone brings us closer to realizing our shared vision.

A special acknowledgment goes to the University of Strathclyde team as well as all our local and international partners for their invaluable support.

Thank you for being part of this mission. Together, let's keep the momentum alive!



**ZARENA TEAM** 



## **FOR MORE INFORMATION**

#### **OUR WEBSITES**

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ZAMBIA RENEWABLE ENERGY ASSOCIATION