



SUCCESSFUL APPLICATION OF TECHNOLOGIES CENTRED AROUND PEOPLE (SATCAP)

of the Mandela Mining Precinct



WOMEN IN MINING “HER STORY” EMPOWERMENT EVENT

2024

A GENDER-INCLUSIVE
JUST ENERGY TRANSITION
IN MINING

INFORMATION
BOOKLET



WELCOME

Climate change and environmental degradation disproportionately affect women, exacerbating gender inequality. The nexus between gender equality and climate justice is pivotal in the context of South Africa's Just Energy Transition (JET) and is especially relevant to the mining sector as it transitions towards greener operations.

Women's involvement in JET decision-making processes can ensure that diverse perspectives are considered, leading to more holistic and equitable solutions. Furthermore, by prioritising gender-responsive transition strategies, the mining industry can simultaneously address both social and environmental dimensions of sustainability, fostering a more inclusive and resilient energy transition for South Africa.





This event, hosted by the SATCAP Programme of the Mandela Mining Precinct, is focused on gender-inclusive green energy and environmental initiatives in mining, thus highlighting women inclusion and involvement in the cause for climate justice, including zooming in on the progress made towards a gender-inclusive energy transition to date, and amplifying the voices and experiences of women making inroads in this space.

The event will showcase case studies of women-led initiatives in the Just Energy Transition and highlight empowerment opportunities for women through green job creation, skills support, and environmental education.

Thank you for being part of the conversation and dialogue to applaud and celebrate the successes of women who navigate the green energy journey!



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WOMEN IN MINING “HER STORY” EMPOWERMENT EVENT

AGENDA



TIME	ITEM	SPEAKER
09:00 – 09:05	Welcome and Programme Overview	Rina Muller - SML4change
09:05 – 09:15	A Word of Inspiration	Sherin Ramparsad - Mandela Mining Precinct
SESSION 1 09:15 – 09:30	Where are we on the Road to a Gender-Inclusive Energy Transition?	Aradhna Pandarum - The Impact Catalyst
SESSION 2 09:30 – 10:00	Panel discussion: Facilitating change in the status quo: Perspectives on Policy, Skills and Labour • Policy support for women inclusion in JET • Empowering women in JET • Supporting initiatives for female inclusion in JET • Green energy skills – the way forward	Facilitator: Rina Muller Elizabeth Marabwa - DMRE Melanie Roy - NUMSA Adv Hanlie van Vuuren - Solidariteit Laura Harris - merSETA
10:00 – 10:15	Comfort and coffee break	
SESSION 3 10:15 – 10:30	My Journey as a Woman Driving Sustainability in Mineral Resources – what impact are we making?	Nikki Fisher - Thungela Resources

WOMEN IN MINING “HER STORY” EMPOWERMENT EVENT



AGENDA

TIME	ITEM	SPEAKER
SESSION 4 10:30 – 11:00	Roundtable discussion: Inspiring women - cases and lessons learnt from NGO and Community Perspective - Supporting initiatives for Climate Justice - Industrial symbiosis: Combatting Waste Issues and Empowering Unemployed Women Through Job Creation / Resource Efficient and Cleaner Production (RECP) - Sustainable agriculture and greening projects empowering local communities	Facilitator: Rina Muller Promise Mabilo - Vukani Environmental Justice Group Maggie Matumba Mashau - NCPC Nelly Nkosi - Khutala Environmental Care Group
SESSION 5 11:00 – 11:15	Spotlight: Looking to the future: Sustainability in Mining – Priority setting	Lithakazi Nxiweni - Climate Change Policy Analyst
11:15 – 11:30	Reflections on the spotlight presentations and panel sessions – remarks from participants	Facilitator: Rina Muller
11:30 – 11:45	Mentimeter Feedback Survey	Kimehra Govindasamy (RIIS)
11:45 – 11:50	Closing remarks / Vote of Thanks	Rina Muller
11:50 – 12:00	Photos	

BACKGROUND TO SATCAP & THE MANDELA MINING PRECINCT

01 MANDELA MINING PRECINCT

The Mandela Mining Precinct is a Public-Private Partnership between the Department of Science and Innovation (DSI) and the Minerals Council of South Africa; and is co-hosted by the CSIR. It is an initiative aimed at revitalising the mining industry through research, development and innovation to ensure the sustainability of the South African mining industry.



02 SUCCESSFUL APPLICATION OF TECHNOLOGIES CENTRED AROUND PEOPLE (SATCAP) PROGRAMME

The SATCAP Programme seeks to gain an understanding into the challenges, effects and impacts of mining modernisation on people in the minerals sector.

As a balance is needed between people, planet and profit, SATCAP lends support to the environmental, social and governance (ESG) agenda.



Cultivate your career growth with passion and confidence—let every step inspire personal development.

UNDERSTANDING THE JUST ENERGY TRANSITION

As a signatory to various international climate agreements, South Africa has committed to achieving a **50% reduction in greenhouse gas emissions by 2030** and net-zero emissions by 2050 (World Resources Institute, 2022).

However, as the largest greenhouse gas emitter on the African continent and among the top 15 emitters worldwide, the nation faces significant challenges in creating a more sustainable and environmentally responsible energy landscape (International Monetary Fund African Department, 2023).

The most significant of these challenges is the country's heavy reliance on fossil fuels, which presently dominate its energy mix.

With around **90% of South Africa's electricity coming from coal plants** and a significant number of South Africans employed in the coal mining and coal-power sectors, the need for a well-managed transition, including skills development and training initiatives for the new energy landscape, is imperative (Climate Transparency, 2020).

Recognising this, a set of principles, policies and governance arrangements, **the Just Energy Transition Plan (JET-P)**, was formulated by the Presidential Climate Commission (PCC) to guide and give effect to the transition.

It suggests a phased approach to the decommissioning and repurposing of coal plants, while encouraging investments into renewable energy technologies. Beyond mitigating environmental harm, the JET-P aims to improve energy access for underserved communities and reduce energy poverty, thereby creating a more just and equitable energy landscape.

Importantly, the JET-P proposes reskilling initiatives for coal workers, which will enable them to transition from coal-linked jobs to new employment opportunities in the clean energy sector (Presidential Climate Commission, 2022).



THE JET-P VISION

The JET-P sets out a vision for a just transition, while establishing principles, policies and governance arrangements to give effect to the transition. According to the JET-P, a just transition is underpinned by the following core principles:

1.

Distributive justice: The risks and opportunities resulting from the transition must be distributed fairly, cognisant of gender, race, and class inequalities.

2.

Restorative justice: Historical damages against individuals, communities, and the environment must be addressed, with a particular focus on rectifying or ameliorating the situations of harmed or disenfranchised communities (PCC 2022a); and

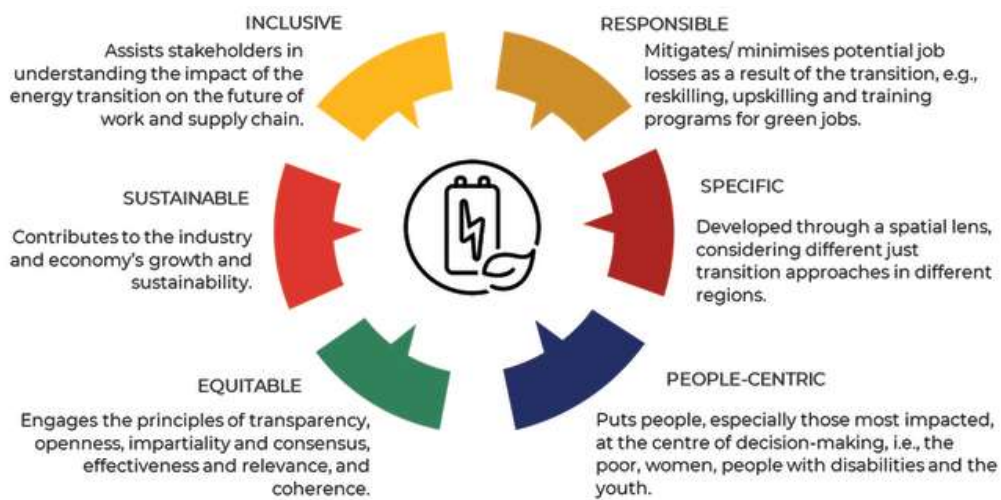
3.

Procedural justice: Workers, communities, and small businesses must be empowered and supported in the transition, with them defining their own development and livelihoods (PCC 2022b).



THE JET-P VISION

It further outlines the following six pillars of a Just Energy Transition for South Africa:



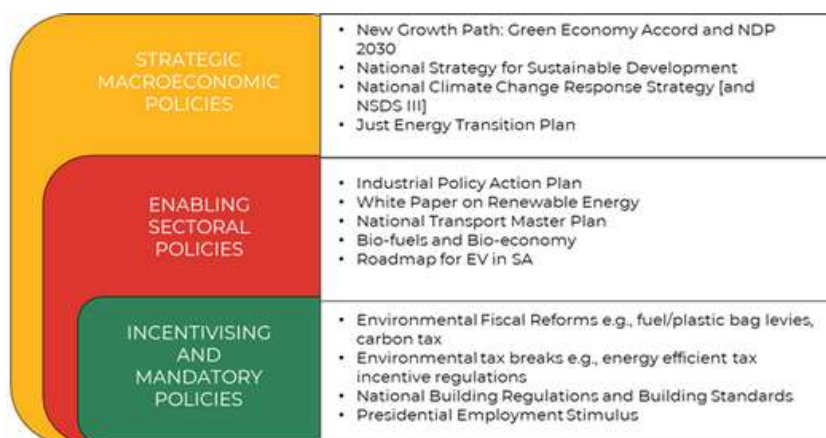
Adapted from: A Framework for a Just Transition in South Africa, Presidential Climate Commission, 2022.



KEY POLICIES SUPPORTING A JUST TRANSITION TO A GREEN ECONOMY

The Just Energy Transition is underpinned by the following macro-economic, sectoral and incentivising policies:

POLICIES DRIVING GREEN GROWTH AND SKILLS NEEDS



Source: Skills for a Just Transition to a Green Economy, Prof Eureta Rosenberg, Rhodes University

The above policies are designed to address the socio-economic, environmental, and industrial challenges inherent in the transition.



*Courageous women in Just Energy Transition
light the way with resilience and confidence,
inspiring others to grow and learn.*



At the forefront of the transition is the emphasis on human resource and skills development, which acknowledges the profound inequality and high unemployment levels in the country.

To ensure that all workers can participate in the green economy, policies focus on reskilling and upskilling existing workers, particularly in green jobs, and aligning the education system to meet future labour demands. This includes enhancing foundational skills through quality basic education, responsive post-secondary education, and continuous learning opportunities, especially for marginalised communities.

By equipping the workforce with the necessary skills, South Africa can create a resilient labour force capable of adapting to the new demands of a green economy (Presidential Climate Commission, 2022).



IMPROVED WOMEN PARTICIPATION THROUGH GREEN SKILLS DEVELOPMENT



SKILL	DESCRIPTION
Skills supporting resource efficiency	• Strategic business management skills: to build resource efficient business models, leading to bottom line benefits, and preparing for new regulations. • Business/financial accounting skills: for carbon and natural environment accounting. • Skills to design and adopt technologies, products and processes: to increase resource efficiency, including lean manufacturing. • Project management skills: to implement resource efficiency. • Operator level actions: to maximise resource efficiency.
Skills supporting low-carbon industry	• Skilled scientists and engineers: for lower-carbon forms of energy. • Skilled technicians to install energy efficiency measures in households and businesses. • Skills to design and adopt technologies, products and processes: to minimise carbon emissions. • Skilled operators to minimise carbon emissions (e.g., driving in a fuel-efficient manner).

IMPROVED WOMEN PARTICIPATION THROUGH GREEN SKILLS DEVELOPMENT



SKILL	DESCRIPTION
Skills supporting climate resilience	• Scientific and technical skills: e.g., to model and interpret climate change projections. • Risk management skills: e.g., to assess future resource availability. • Skills to design and adopt technologies, products and processes: to improve climate resilience. • Skilled operators: to improve climate resilience (e.g., retrofitting water-efficient technologies in households and businesses).
Skills to manage natural assets	• Accounting skills: for the natural environment. • Environmental impact assessment skills. • Skills to design and adopt technologies, products and processes: to oversee natural assets. • Planning skills: to interpret environmental legislation targets, ecosystem services design, and management and land-use planning.

Source: *Skills Required for a Green Economy* (WWF, 2018)

In South Africa, a shortage of the above skills has been identified as a critical bottleneck in the green economic transition (WWF, 2018).

Industrial development and economic diversification are equally critical, with policies aimed at creating new economic clusters that generate jobs and address local needs.

To support diversification, there is a strong focus on innovation, particularly in developing competitive industries for renewable energy, green technologies, and the circular economy.

Regulatory frameworks and technical standards are being updated to encourage the adoption of these new technologies, ensuring that South Africa remains competitive in the global green economy while fostering local job creation (Presidential Climate Commission, 2022).



Lastly, **social protection measures** form the backbone of the just transition, ensuring that workers and communities affected by the shift to a green economy are not left behind.

Comprehensive social security reforms are being proposed to address existing gaps and provide support to those in need, particularly the chronically poor and unemployed.

These measures include basic income support, retirement and disability provisions, and targeted social grants. Additionally, policies are being implemented to enhance climate resilience, particularly for vulnerable communities, through investments in "climate-proofed" infrastructure and ecological systems.

By integrating these social protection measures with education, training, and labour market policies, the transition to a green economy can be both inclusive and equitable (Presidential Climate Commission, 2022).

TRANSITIONING TOWARD GREATER EQUALITY IN THE ENERGY SECTOR

The JET framework broadly supports South Africa's efforts to redesign the economy in a way that benefits most citizens and the environment. However, as noted by the Presidential Climate Commission (2023), the issue of gender equity is not adequately addressed.

To effectively address gender equity in South Africa's Just Energy Transition (JET), it is crucial to **integrate gender-specific targets across all stages of the transition, from planning to implementation.**

This includes ensuring that women, particularly those from marginalised communities, are actively involved in decision-making processes, skills development programmes, and leadership roles within the green economy.

The JET must also broaden its economic considerations to recognise and value the critical, often unpaid, roles women play in household management and community resilience.

Practical interventions, such as decentralised renewable energy projects, targeted upskilling, and increased access to venture capital for women-owned businesses, are essential to empower women and ensure they benefit from the transition.

Additionally, revising legislation to prioritise gender equality and human rights will help create a more inclusive and equitable energy transition (Arnoldi, 2023).



Nurture your career growth with learning and passionate dedication—be a beacon of influence and change.



ORGANISATIONS STEWARDING GENDER-INCLUSIVE JET INITIATIVES

As the world moves towards cleaner energy sources, women will have an opportunity to engage in careers that were previously inaccessible.

For example, the energy transition has created new roles and responsibilities in renewable energy, many of which are less physically demanding than roles in traditional energy sectors such as coal mining. However, because such opportunities are likely to require specialised skills, upskilling and higher education are pre-requisites for women to be able to access them (Nagel and Lebrun, 2022).



Initiatives aimed at early education and mentorship also create opportunities for women by nurturing an interest in STEM fields among young girls.

Creating supportive work environments through practical measures, such as gender-specific protective gear and facilities, is also essential for encouraging women to enter and thrive in this industry (Nagel and Lebrun, 2022).

Political and organisational support are necessary in driving these changes (Lebrun, 2022).

With increasing recognition of the need for gender diversity within the energy sector, various groups and councils have begun working to promote women's participation and leadership and break down barriers that have historically limited women's involvement within the sector.

01 PRESIDENTIAL CLIMATE COMMISSION (PCC)

The Presidential Climate Commission (PCC) of South Africa is a multi-stakeholder body established to advise on climate change policies and pathways for a just transition to a low-carbon economy. Tasked with ensuring that South Africa's response to climate change is inclusive and equitable, the PCC plays a crucial role in shaping policies that address both environmental and socio-economic challenges. The Commission brings together government, business, labour, and civil society to collaborate on strategies that promote sustainable development while mitigating the impacts of climate change.

In the context of the Just Energy Transition (JET), the PCC is focused on ensuring that the transition to renewable energy is fair and inclusive, particularly for vulnerable groups such as women. Recognising that women are disproportionately affected by climate change and energy poverty; the PCC is committed to integrating gender considerations into its JET framework. This involves advocating for policies and initiatives that empower women through access to clean energy, green jobs, and leadership roles in the energy sector.

Through its work in the JET space, the PCC aims to create a more resilient and equitable energy future for South Africa. By prioritising the needs and contributions of women, the Commission is helping to build a transition that not only addresses environmental concerns but also promotes social justice and gender equality. The PCC's efforts are pivotal in ensuring that South Africa's shift towards a sustainable energy future leaves no one behind, particularly women who are often at the forefront of climate resilience in their communities.



Women at the forefront of climate resilience are the beacons of hope in their communities, courageously leading change and inspiring others to build a sustainable future.

02 NATIONAL CLEANER PRODUCTION CENTRE (NCPC)

The National Cleaner Production Centre (NCPC) is a leading South African organisation dedicated to promoting sustainable industrial development through cleaner production practices. As a key player in the Just Energy Transition (JET) space, the NCPC focuses on helping industries reduce their environmental footprint while enhancing their competitiveness.

By providing expert advice, technical assistance, and capacity building, the NCPC supports businesses in transitioning to more sustainable energy sources and improving energy efficiency, thus contributing to South Africa's broader goals of environmental sustainability and economic growth.

In the JET space, the NCPC is particularly committed to empowering women, recognising their critical role in driving change towards a more sustainable and inclusive economy. The Centre implements targeted programmes to equip women with the necessary skills, knowledge, and opportunities to lead and participate in the energy transition.

Through training, mentorship, and networking opportunities, the NCPC ensures that women are not only included but are at the forefront of South Africa's shift towards cleaner energy solutions.



Training opens doors, mentorship guides the way, and networking builds the bridges to success—together, they transform opportunities into achievements.



03 KHUTHALA ENVIRONMENTAL CARE GROUP WOMEN'S MOVEMENT

The Khuthala Environmental Care Group, led by Nelly Nkosi, is making a significant impact in Wesselton, Mpumalanga, by addressing the environmental and social challenges caused by abandoned mines. Through the establishment of the Khuthala Women's Movement, the organisation empowers women by creating job opportunities and transforming degraded land into usable spaces, such as the Khuthala Park and a community food garden. This initiative not only provides income for women through projects like soap-making and catering but also fosters a sense of community and resilience.

Additionally, Khuthala's "Operation Start Them Young" educates local youth on environmental issues and climate change, ensuring that the next generation is equipped with the knowledge and skills needed to protect their community. Through these efforts, Khuthala is not only rehabilitating the environment but also empowering women and youth to create a sustainable future for Wesselton.



The strength of women and youth in environmental initiatives transforms challenges into opportunities, creating a sustainable legacy for generations to come.



04 AFRICAN WOMEN IN ENERGY AND POWER (AWEAP)

AWEaP has designed a Just Energy Transition Skills Development Programme which targets women in the power and energy sector.

The programme equips women leaders, managers and operators with information that will enable them to create, drive and execute local just energy transition strategies and initiatives. In this way, it stimulates micro-economies and provides access to the market for companies owned and led by women, youth and persons with disabilities.



Empowerment through opportunity and development creates a landscape where aspirations are realized and everyone can shine.



04 WOMEN IN ENERGY (WE) CONNECT

WE Connect is a dynamic organisation dedicated to fostering an inclusive energy future in South Africa. At a pivotal moment in the country's energy transition, WE Connect is committed to ensuring that this transformation is not only sustainable but also accessible to all, particularly those from under-represented groups. Under the leadership of Executive Director Kalnisha Singh, the organisation focuses on three key programmatic areas: youth access, support for in-career professionals, and value-chain development.

Through these initiatives, WE Connect aims to build vital connections between aspirations and opportunities, empowering individuals to actively participate and thrive within the energy sector.



Empowerment through opportunity and development creates a landscape where aspirations are realized and everyone can shine.



06 VUKANI ENVIRONMENTAL JUSTICE GROUP

The Vukani Environmental Justice Group is a dynamic community-based organisation committed to advancing environmental justice and advocating for a sustainable future in South Africa. Located at the heart of communities affected by environmental degradation, Vukani has taken a leading role in the Just Energy Transition (JET) movement, striving to ensure that the shift to renewable energy sources is equitable and inclusive.

Vukani's efforts in the JET space are particularly focused on empowering women, who are often disproportionately affected by environmental and economic challenges. The group provides training, resources, and support to women in vulnerable communities, enabling them to become active participants in the energy transition. By fostering leadership and technical skills among women, Vukani is helping to build a more resilient and gender-equitable future.



Through its grassroots initiatives and advocacy work, the Vukani Environmental Justice Group is not only driving the adoption of sustainable energy practices but also ensuring that the voices of women are heard in the decision-making processes that shape South Africa's energy landscape. Their work serves as a model for how community-led organisations can contribute to a just and inclusive transition to renewable energy.



Empowerment in the face of environmental challenges sparks a revolution of resilience and equity, creating a world where every voice counts.

07 ENERGY AND WATER SECTOR EDUCATION AND TRAINING AUTHORITY (EWSETA)

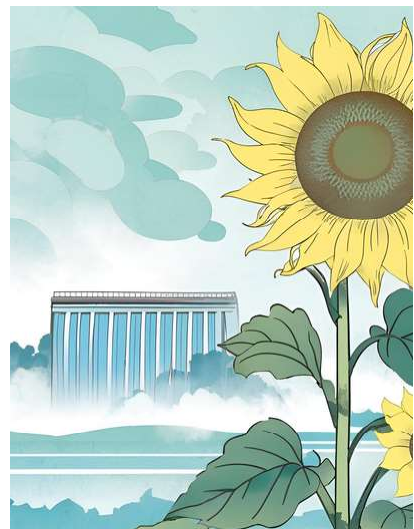
The Energy and Water Sector Education and Training Authority (EWSETA) is a key South African organisation dedicated to driving skills development within the energy and water sectors. As a statutory body, EWSETA's mandate includes facilitating education, training, and development initiatives to meet the demands of these critical industries. By working closely with employers, training providers, and government entities, EWSETA ensures that the workforce is equipped with the necessary skills to address current and future challenges in the energy and water sectors, fostering sustainable economic growth and environmental stewardship.

EWSETA is particularly committed to advancing the role of women in the JET space. Recognising the historical underrepresentation of women in the energy sector, the authority has prioritised initiatives that support gender equality and inclusion. Through targeted training programmes, mentorship opportunities, and partnerships with organisations focused on women's empowerment, EWSETA is helping to ensure that women play a significant role in shaping South Africa's energy future.

By fostering an inclusive environment, EWSETA is not only contributing to a more diverse workforce but also ensuring that the benefits of the Just Energy Transition are shared equitably across society.



An inclusive, skilled workforce turns energy and water sectors into beacons of progress, empowering everyone to shape the future.



08 MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA (MERSETA)

The Manufacturing, Engineering, and Related Services Sector Education and Training Authority (merSETA) plays a pivotal role in South Africa's skills development landscape, particularly within the Just Energy Transition (JET) space.

As the country shifts towards a more sustainable and equitable energy future, merSETA is at the forefront of training and upskilling the workforce to meet the demands of new green industries. Through strategic partnerships with industry leaders and educational institutions, merSETA ensures that South Africa's workforce is equipped with the necessary skills to thrive in a transitioning economy, with a strong focus on manufacturing and engineering sectors.

Central to merSETA's mission in the JET space is its commitment to empowering women. Recognising the gender disparities in the energy and engineering fields, merSETA has implemented targeted programmes designed to increase female participation and leadership in these traditionally male-dominated sectors. By offering scholarships, mentorship opportunities, and specialised training courses, merSETA not only supports women's entry into the green economy but also promotes their advancement within it, fostering a more inclusive and diverse workforce.

Furthermore, merSETA's initiatives extend beyond technical skills development to include advocacy and awareness-raising efforts that highlight the importance of gender equity in the Just Energy Transition. By creating platforms for dialogue and collaboration, merSETA ensures that women's voices are heard and their contributions valued in shaping South Africa's sustainable future.

REFERENCES & RESOURCES

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Department of Science and Innovation	www.dst.gov.za
Department of Mineral Resources and Energy	www.dmre.gov.za
Presidential Climate Commission	www.climatecommission.org.za/just-energy-transition
National Cleaner Production Centre (NCPC)	www.industrialefficiency.co.za
The Impact Catalyst	www.impactcatalyst.co.za
SML4Change	sml4change.co.za
EWSETA	ewseta.org.za
merSETA	www.merseta.org.za
WE Connect	www.linkedin.com/company/we-connect-resa/about
Vukani Environmental Justice Group	vem.org.za/contact
Khutala Women's Movement	www.facebook.com/khuthalaenviro?mibextid=ZbWKwL
African Women in Energy and Power (AWEaP)	aweap.africa/jet-skills-development-programme
Global Energy Alliance for People and Planet	https://energyalliance.org/
Earthlife Africa	https://earthlife.org.za/



MANDELA MINING PRECINCT
MINDS FOR MINES



Successful Application of Technologies
Centred Around People Programme

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*Rise like a sunflower in the Just Energy
Transition; your courage and
dedication will illuminate the path to a
brighter, greener world.*

