

Universal Access to Energy

ZERO works in the area of universal access to energy. With financial support from Hivos, a donor agency, and with technical support from Practical Action and the United Nations Development Programme (UNDP) Zimbabwe Country Office, ZERO is the civil society coordinator of the Sustainable Energy for All (SE4ALL) initiative in Zimbabwe. The goal is to increase universal energy access through the provision of modern energy for cooking, promoting rural electrification and advocating for pro-poor energy policies that expand access to people living in slums.

The United Nations-led Sustainable Energy for All (SE4ALL) initiative has entered its fourth year. In Zimbabwe, it is being coordinated by civil society and focusing on advocacy and policy dialogues to raise awareness on SE4ALL.

SE4ALL is a United Nations global goal for achieving universal energy access to modern energy services by 2030. The UN is leading this initiative on sustainable energy for all to mobilise action from all sectors of society: business, governments, investors, community groups and academia.

Background

Sustainable development is not possible without sustainable energy. One person in five on the planet still lacks access to electricity. Twice that number, three billion people, relies on wood, coal, charcoal or animal waste for cooking and heating. In today's economy, this is inequitable, a major barrier to eradicating poverty. In industrialized countries, the energy problem is one of waste and pollution, not a shortage. Throughout the world, inefficient energy use harms economic productivity and energy-related emissions contribute significantly to the dangerous warming of our planet. Climate change puts us all at risk.

Out of the 12.5 million people in Zimbabwe, more than 70% of them live in rural areas without access to modern energy. Only 19% of the population in the country has access to electricity. The majority relies on conventional sources of energy to meet their energy service needs.

The household energy sector remains the largest consumer of energy characterized by high dependence on traditional biomass.

The key to both challenges is to provide sustainable energy for all - energy that is accessible, cleaner and more efficient.

Sustainable energy provides new opportunities for growth during the economic downturn. Sustainable energy enables businesses to grow, generate jobs, create new markets and Millions of more children can study after dark. Zimbabwe can grow a more resilient,

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competitive economy. With sustainable energy, the country can leapfrog over the limits of the energy systems of the past and build the clean energy economy of the future. Sustainable energy for all is an investment in our collective future.

The future with Sustainable Energy for All

Energy access is not just about fulfilling basic needs and keeping people alive - it is about escaping poverty and participating in the modern world. It can help people earn a decent living so they can work their way out of poverty.

In Zimbabwe, efforts to promote the utilization of sustainable energy have already begun and will accelerate over the coming two decades. Sustainable energy for all is an idea whose time has come. Turning ideas into action depends on us all. Working together, we can power a brighter future.

The United Nations Secretary-General has called for a global goal for achieving universal energy access to modern energy services by 2030. He is leading a global initiative on Sustainable Energy for All to mobilize action from all sectors of society: business, governments, investors, community groups and academia. Three billion people will no longer live in energy poverty and 30 million deaths from smoke-related diseases will be avoided if the goals are achieved. This is in support of three interlinked objectives:

- **Universal access to modern energy services**
- **Double the global rate of improvement in energy efficiency**
- **Double the share of renewable energy in the global energy mix.**

Commitments that benefit all Zimbabwe, through its departments, parastatals, the private sector and civil society, has made effort to implement the Sustainable Energy for All campaign. A Gap Analysis has been crafted by the Ministry of Energy and Power Development. Civil Society is already in action. A civil society statement_on SE4ALL has been produced. The following are the expected actions by civil society in Zimbabwe:

- The government can develop national energy plans and targets, provide financial support, and remove counterproductive tariffs and subsidies.
- Companies can make their operations and supply chains more energy-efficient, and form public-private partnerships to expand the use of sustainable energy products and services.
- Investors can provide seed money for clean technologies and invest in both on- and off-grid energy solutions.
- Industry, government, and academia can contribute to technology innovation. Civil society groups can train entrepreneurs, engage in advocacy, and demand accountability.

The media have also shown the will to help raise awareness of renewable energy and sustainable energy for all.

Renewable Energy

DOUBLING THE SHARE OF RENEWABLE ENERGY

Renewable energy is energy which comes from natural resources such as sunlight, wind, rain, tides and geothermal heat, which are renewable (naturally replenished). The mainstream forms of renewable energy include wind power, hydropower, solar energy, biomass, biofuel and geothermal energy. Renewable energy replaces conventional fuels in four distinct areas namely power generation, hot water/space heating, transport fuels, and rural (off-grid) energy services. Renewable energy can also be the most practical solution in delivering power to rural and impoverished areas.

All forms of energy are expensive, but as time progress renewable energy generally gets cheaper, while fossil fuels generally get more expensive. Renewable energy can directly contribute to poverty alleviation by providing the energy needed for creating business and employment. Renewable energy technologies can also make indirect contributions to alleviating poverty by providing energy for cooking, and lighting. Renewable energy can also contribute to education, by providing electricity to schools.

United Nations Secretary-General Ban Ki-Moon is calling on businesses, governments and civil society to achieve Sustainable Energy for All. By 2030.

Doubling the global rate of improvement in energy efficiency by 2030 is an essential part of the Secretary-General's vision.

At the heart of his vision are three complementary objectives: achieving universal access to modern energy services; doubling the global rate of improvement in energy efficiency, and doubling the share of renewable energy in the global energy mix. Realizing these three objectives will drive economic growth, improve social equity, and protect our environment. Together, they will power the world towards a cleaner, healthier, and more sustainable future.

Renewable energy products and services constitute a rapidly growing segment of the international marketplace. Total new investment in clean energy increased to \$260 billion in 2011. Electricity from the wind, sun, waves and biomass drew \$187 billion in 2014 compared with \$157 billion for natural gas, oil and coal. Some recent scenarios estimate that renewables will contribute more to a low carbon energy supply by 2050 than nuclear power or fossil fuels using carbon capture and storage (CCS).

The Bottom Line

Investing in renewable energy creates jobs, fosters economic growth, and improves energy security for countries that lack domestic fossil fuel resources. Increasing the share of energy from renewable sources can reduce greenhouse gas emissions and local pollution; insulate countries from fuel price volatility, and improve those countries' balance of payments. Renewable energy is becoming increasingly cost-competitive. Hydro, geothermal and bioenergy have long been competitive where resources are available, and wind and solar are also economically attractive in many locations.

“Energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive.” – UN Secretary-General Ban Ki-Moon

Renewable energy currently constitutes 15% of the global energy mix... Achieving the Secretary-General's objective of doubling that percentage by 2030 requires support from all sectors of society, including the public.

Commitments that Benefit All

The United Nations is ideally suited to convene key stakeholders at both the global and national level to achieve the vision of Sustainable Energy for All. Governments, businesses, and civil society can all make tangible commitments towards renewable energy. Commitments might include:

- Establishing collaborative public-private partnerships that set specific renewable energy targets with coordinated efforts to achieve them.
- Developing communities of practice to foster peer learning, capacity building, and expert assistance across governments, companies, NGOs, and financial institutions.
- Identifying creative solutions to reduce barriers in financing and regulatory frameworks.
- Creating business incentives for innovation in renewable energy in partnership with government innovation programmes.
- Demonstrating public sector leadership by using renewable energy in facilities and procurements.
- Developing new financing partnerships to de-risk private investment in developing countries.
- Adopting government policies to promote investment, manage risk, and reduce impediments to adopting renewable energy.
- Implementing and/or scaling up existing renewable projects.

Doubling the share of renewable energy in the global energy mix is achievable. Countries with abundant biomass resources, like Sweden and Brazil, now get 50% of their energy from renewable resources

Universal Access to Modern Energy

Universal access to modern energy services

Access to clean and affordable modern energy is critical to fostering lasting social and economic development and achieving the Sustainable Development Goals. Worldwide, almost 3 billion people rely on traditional biomass for cooking and heating, and about 1.5 billion have no access to electricity, with 1 billion more having access only to unreliable electricity networks.

The lack of modern energy services stifles income-generating activities and hampers the provision of basic services such as health care and education. Also, smoke from polluting and inefficient cooking, lighting, and heating devices kills nearly two million people a year and causes a range of chronic illnesses and other health impacts. These emissions are important drivers of climate change and local environmental degradation. They also consume time that women and girls could spend in more productive activities and pose security risks for them as they forage for fuel.

In response, United Nations Secretary-General Ban Ki-moon's Advisory Group on Energy and Climate Change — composed of global business leaders and heads of UN agencies — has called for a major UN initiative to achieve *universal access to modern energy services by 2030*. UN-Energy — a collaboration of 20 UN agencies — will lead the effort. United Nations Secretary-General Ban Ki-moon made sustainable energy one of his five priorities that will guide his second 5-year term.

This initiative calls for the private sector and national commitments and attract global attention to the importance of energy for development and poverty alleviation.

Also, as part of the Sustainable Energy for All Initiative, the United Nations Foundation has launched a new global Energy Access Practitioner Network. This group will bring together practitioners from the private sector and civil society working on the delivery of energy services and solutions related to electrification in a range of developing country contexts to develop a more integrated approach to energy access planning and execution in support of the Sustainable Energy for All Target to achieve universal energy access by 2030. The Network will focus on both household and community level electrification for productive purposes,

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incorporating specific market-based applications for health, agriculture, education, small business, communities and household solutions.

Generally the poor are particularly disadvantaged. The urban poor typically have some access to electricity, but its quality is poor, service is unreliable and intermittent, and their connections are often informal. In rural areas, physical access is often non-existent. If the rural poor do have access to electricity, it tends to be of inadequate quality and/or quantity from stand-alone systems or poorly run and inefficient mini-grids that are expensive and prone to frequent failure.

The benefits of achieving universal access to modern energy services are transformational: lighting for schools, functioning health clinics, pumps for water and sanitation, cleaner indoor air, faster food-processing and more income-generating opportunities, among others.

For universal access to modern energy services to be achieved by 2030, practical, effective and large-scale actions are needed to invest in capacity development, mobilize public-private partnerships and massively scale up successful and innovative solutions to overcome extreme energy poverty. There are no fundamental technical barriers to universal energy access since there are proven and innovative solutions worldwide. The capital investment required for universal energy access represents only around 3 per cent of the total global energy investment. Governments must make universal energy access a top political priority.

Universal energy access in the context of Zimbabwe

The energy situation in Africa is characterised by lack of access to sustainable energy services, which leads to a self-perpetuating vicious cycle of poverty, poor health, low productivity and food shortages. The need to accelerate development in Africa is widely recognised and access to clean and reliable energy is vital to that task. Countries cannot meet individual development goals with an integrated energy solution. Energy from rural electrification schemes is usually insufficient or unaffordable for cooking, leaving millions of family in smoke-filled kitchens.

The main source of energy in Zimbabwe is coal, wood, electricity and petroleum fuels. According to the 2009 National energy balance, wood fuel provides the bulk (61%) of the total energy supply followed by liquid fuels (18%), electricity (13%) and coal (8%). 30% of households in Zimbabwe have access to electricity connected via power lines, but there is a significant difference between urban and rural areas in their access to electricity.

According to the Government of Zimbabwe National Energy Policy, 2012, 83% of household in rural areas have access to electricity, compared to 23% in rural areas. Zimbabwe's renewable

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energy resource (hydro, wind and solar) augment the energy deficit Zimbabwe lacks economic resources and technical capability to enable people to have universal energy access. Renewable energy projects implemented by CSOs across the country outline and present the case of using appropriate technology to challenge energy poverty from the perspective of the rural folk. The projects alleviate the environmental problems associated with using wood for cooking, diesel for milling and paraffin for lighting. These projects aim to increase access to modern affordable and sustainable renewable energy services for rural communities.

Nationally the current rate of adoption of renewable energy technology is low due to high initial investments cost, limited knowledge about renewable energy technology and lack of competitiveness compared to conventional electricity. Without energy services, the poor are cut off from basic amenities. Without energy access, people are forced to live and work in unhealthy, polluted conditions. Energy affects the viability of forest, soils and rangelands, for total energy access to be a reality by 2030, development countries should come up with a new framework for action such as supporting the government to lobby for international funding and technical support, as well as garnering financial support from the local business company, educational institutions and other donors.

Energy Efficiency

Sustainable Energy for All – SE4ALL – is a global multi-stakeholder partnership between governments, the private sector, and civil society. The initiative was launched by the United Nations (UN) Secretary-General in 2011, and has three ambitious interlinked objectives to be achieved by 2030, these are:

- Ensure universal access to modern energy services
- Double the global rate of improvement in energy efficiency
- Double the share of renewable energy in the global energy mix

Energy Efficiency

Efficient energy use, sometimes simply called energy efficiency - one of the objectives to be achieved by 2030, is the goal to reduce the amount of energy required to provide products and services. For example, insulating a home allows a building to use less heating and cooling energy to achieve and maintain a comfortable temperature. Installing fluorescent lights or natural skylights reduces the amount of energy required to attain the same level of illumination compared with using traditional incandescent light bulbs. Compact fluorescent lights use one-third the energy of incandescent lights and may last six to 10 times longer. Improvements in

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energy efficiency are generally achieved by adopting a more efficient technology or production processes or by application of commonly accepted methods to reduce energy losses. Energy efficiency is one of the easiest and most cost-effective ways to combat [climate change](#), clean the air we breathe, improve the competitiveness of our businesses and reduce energy costs for consumers. Nearly one in five people around the world do not have access to modern energy services. Three billion people, mainly in poor countries, rely on traditional biomass such as wood, coal, charcoal or animal waste for cooking and heating, usually with negative impacts on human health and the natural environment.

Renewable energy and energy efficiency are said to be the *twin pillars* of [sustainable energy](#) policy and are high priorities in the sustainable energy hierarchy. In many countries, energy efficiency is also seen to have a national security benefit because it can be used to reduce the level of energy imports from foreign countries and may slow down the rate at which domestic energy resources are depleted.

Energy efficiency, therefore, has proved to be a cost-effective strategy for building economies without necessarily increasing [energy consumption](#).

Energy Efficiency in Zimbabwe

The Zimbabwe Energy Regulatory Authority (ZERA) engaged a consulting firm, to conduct a national energy efficiency audit for Zimbabwe which would determine the national efficiency baseline. The study would incorporate manufacturing, mining, transport, agriculture, and housing, among other sectors, to produce audits by the end of 2014. This would ultimately lead to the formulation of an energy efficiency strategy for Zimbabwe. The purpose of the energy efficiency strategy will be to promote mandatory energy audits and regulate energy efficiency and conservation in all energy demand sectors as well as promote investment.

However, production system efficiency in most of Zimbabwe's industry is usually neglected due to the absence of investment in new technologies. The government of Zimbabwe is committed to promoting energy efficiency in all sectors of the economy as indicated in the national energy policy of 2012. Zimbabwe's industrial sector is reeling under massive production costs associated with excessive load-shedding and use of generators to keep plants operating, among other challenges.

In Zimbabwe, electricity availability remains a major challenge, stunting industrial growth and condemning homes into perpetual darkness, as authorities have introduced demand-side management.

Various outcomes justify investment in and commitment to energy efficiency in Zimbabwe, the major one being a reduction in expenditure on the importation of commercial energy,

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particularly electricity. Energy savings have ripple effects throughout the whole economy because the productive sectors most affected by power cuts will have more power available for production. Unemployment is currently high and most households are poor. In poor households, wood fuel and charcoal are the main energy sources used, while kerosene lamps and candles are used for lighting. Different types of fuel have different end-uses, which militates against the efficient and rational use of energy.

Rural communities meet 94 per cent of their cooking energy requirements from traditional fuels, mainly firewood, and 20% of urban households use wood as the main cooking fuel. Coal, charcoal and liquefied petroleum gas (LPG) are used by very few households (less than 1 per cent). A majority of urban households use electricity for cooking (73%). In contrast, only 6% of rural households use electricity for this purpose ([Zimbabwe Energy Policy](#)).

Zimbabwe SE4All Initiative

The Sustainable Energy for All (SE4All) in Zimbabwe is a civil society facilitated process. ZERO Regional Environment Organisation a local organisation is taking lead in mobilising other CSOs including Media in raising awareness on the Energy Global agenda, with Practical Action providing technical support and HIVOS supporting financially. Some of the participating organisations are SNV, GEF-SGP, Climate Change and Sustainable Development Development Network (CCSDDA), CAAF, Development Reality Institute (DRI), Environmental Management Trust (EMT), CompEnergy and EMAUS International among others. The objective is to engage stakeholders in energy to advance the goals and objectives of the SE4All by 2030 initiative.

SE4ALL Activities

Access to modern energy for most of the population in Zimbabwe remains a challenge and in Africa as a whole. The majority of people live in rural areas. They are poor and have to depend on fuelwood for their energy needs. Even the rural industries which should be the source of their incomes also depend on fuelwood. This overdependence on fuelwood has negative effects on the environment as well as health problems caused by inhalation of smoke.

The United Nations Secretary General's 'Sustainable Energy for All' initiative has proposed a goal of Universal Energy Access by 2030. Zimbabwe is one of the countries working towards this goal, recognizing energy access as a critical lever in ending poverty.

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Despite the availability of technical solutions, Zimbabwe currently faces a shortage of electrical energy owing to internal generation shortfalls and the country imports all its petroleum fuels, at great cost.

As part of advocating for sustainable energy for all by 2030, Zimbabwean civil society is raising awareness towards achieving this goal. The initiative accessed financial support from Hivos, an international development agency, with technical support from Practical Action, another international development organization.

In 2016, Hivos supported three workshops and a media tour under the SE4ALL initiative. These included two national and community radio stations and newspapers to training workshops on how to advocate issues on women and children's energy needs, tour for women media journalist to Manicaland Province, Chipendeke Micro Hydro Scheme, to see a different sustainable energy technology and exchange visit for rural and urban women in Domboshava and Dzivarasekwa. In 2013 Hivos also supported a media capacity building workshop, donors' breakfast meeting and a mini-grids workshop. The workshops were a follow - up to multi-stakeholder national meetings, civil society regional and national workshops held in Harare in October and December 2012.

In all these meetings, it was agreed that there was an urgent need to engage other stakeholders, such as the media, private sector and donors, to promote dialogues and enhance wider awareness and uptake of renewable energy and the SE4All by 2030 global initiative.

ZERO Regional Environment Organisation was tasked to lead civil society engagement on SE4AL by 2030. ZERO also facilitated the production of a CSO advocacy statement, which was published in The Herald, one of the country's daily newspapers.

ZERO's technical partner, Practical Action is a developmental charity organization which uses technology to challenge poverty by building the capabilities of poor people, improving their access to technical options and knowledge, and working with them to influence social, economic and institutional systems.

Practical Action has been implementing various developmental projects in Zimbabwe since 1989. Within the energy sector, Practical Action works in the fields of decentralized energy systems, renewable energy and household energy for isolated, poor rural communities. In Manicaland province, Practical Action Southern Africa is working with communities in the micro-hydro schemes in Chipendeke and Himalaya areas of Mutare district to achieve universal access to energy. The overall work programme contributes towards the achievement of universal energy access for all by 2030 through decentralised and renewable energy options for poor

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rural and peri-urban communities, improving sustainable energy access for cooking and advocating for pro-poor energy policies.

Cross-cutting issues

Gender Mainstreaming

Although ZERO has always been gender-sensitive in its mission, vision and employment practices, no substantive policy existed on genderising the organization. This shortcoming was addressed during 2001-2002 when ZERO received funding from CIDA-GESP to mainstream gender in the organisation.

The project addressed the issue of mainstreaming gender into the current strategic plan and current projects of ZERO, giving staff full appreciation of the gender elements of the strategic plan and projects which were being implemented through the development of aids/tools to ensure that gender is fully taken into account in future strategic planning processes and project implementation. The tools developed out of this process were fully internalised and extended to close working partners and the governance of ZERO.

This was characterized by holding several staff training workshops on mainstreaming gender. The inaugural workshop was the Gender awareness-raising training workshop, which was followed by the Gender Analytical Skills Training Workshop. The purpose was basically to expose ZERO staff and partners to gender concepts in a bid to create gender awareness as well as equipping partners with skills to integrate gender during formulation implementation and evaluation of programmes and projects.

ZERO understands that gender mainstreaming means focusing on both women and men and their relationships with each other, land and land resources, and working in a global perspective that allows for and appreciates regional diversity.

ZERO is well aware that mainstreaming gender means creating an enabling working environment that will attract and retain gender-sensitive staff. ZERO also recognizes the need to analyze and understand the differential roles and responsibilities, relationships, needs and visions for women and men as forming the basis of a gender-inclusive development process. Gender equality is a fundamental and integral part of democracy and shall, therefore, be mainstreamed and promote

Land

ZERO is a member of ILC is a global alliance of civil society and intergovernmental organisations working together to put people at the centre of land governance. The shared goal of ILC's over 250 members is to realise land governance for and with people at the country level, responding to the needs and protecting the rights of women, men and communities who live on and from the land.

During the 2015 Assembly of Members, held in Dakar, Senegal on the 15th of May 2015, members of the Coalition adopted a new Strategy for the period 2016-2021:

- The change we seek as a Coalition is clearly envisioned in ILC's 10 commitments to people-centred land governance.
- Building on our strength and niche as a network, ILC focuses on creating opportunities for its members to Connect, Mobilise and Influence.
- Our primary impact is through enabling systematic change at the country-level through our National Engagement Strategies.
- We facilitate engagement with influential changemakers beyond the Coalition, including government and the private sector.
- We have elevated our focus on addressing inequality, in particular gender inequality by ensuring women's land rights and gender justice are elevated and cut across all areas of work.

<https://www.landcoalition.org/en/>

Disaster Risk Management

ZERO a member of Global Network of Civil Society Organisations for Disaster Reduction (GNDR) the largest international network of organisations committed to working together to improve the lives of people affected by disasters world-wide. ZERO is an implementing partner in the "Views from the Frontline (VFL) 2019" project in Mashonaland East province. This project aims to strengthen the inclusion and collaboration between at-risk people, civil society and governments in the design and implementation of policies and practices to reduce risks and strengthen resilience. This is done by measuring and directly implementing actions to support progress towards achieving an inclusive 'people-centred' approach to resilience-building. VFL

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2019 provides complimentary monitoring, baseline and data to help guide actors to more effectively achieve the targets of the post-2015 development frameworks, especially the SFDRR, strengthening the accountability of governments, intergovernmental agencies and all other stakeholders to local communities and their resilience priorities.

<https://www.gndr.org/about.html>