



SDG7 Energy Compact of Zambia

A next Decade Action Agenda to advance SDG7 on sustainable energy for all, in line with the goals of the Paris Agreement on Climate Change

SECTION 1: AMBITION

1.1. Ambitions to achieve SDG7 by 2030. [Please select all that apply]

(Member States targets could be based on their NDCs, energy policies, national five-year plans etc. targets for companies/organizations could be based on their corporate strategy)

<p>X 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.</p>	<p>Target(s): Increasing urban electrification by 2030 to 100% from current 68% (11.4 million people), rural electrification from the current 4.5% to 50% (6.1 million people). Time frame: by 2030 Target: Deployment of 900,000 cooking stoves by 2025 (4.5 Million people)</p> <p>Context for the ambition(s): In 2005, the Government of Zambia initiated a participatory and consultative process to develop a vision for Zambia- Titled "Vision 2030," it sets a goal of turning Zambia into a prosperous middle income nation by 2030. The document serves as a basis for national five-year development plans.</p>
<p>X 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.</p>	<p>Target(s): Meeting 30% of Zambia's energy needs with renewable energy (excluding large hydro) by 2030. Time frame: by 2030 Context for the ambition(s): In 2005, the Government of Zambia initiated a participatory and consultative process to develop a vision for Zambia- Titled "Vision 2030," it sets a goal of turning Zambia into a prosperous middle income nation by 2030. The document serves as a basis for national five-year development plans.</p>
<p>X 7.3. By 2030, double the global rate of improvement in energy efficiency.</p>	<p>Target(s): Energy Intensity - 8.4 (MOE/Trillion GDP in 2015 US\$) in 2030, -2%/year decrease over the 2019 -2030 period Time frame: 2019-2030 Context for the ambition(s): The government of Zambia joined the SE4All initiative in 2016 & created an Action Agenda.</p>
<p><input type="checkbox"/> 7.a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.</p>	<p>Target(s): Time frame: Context for the ambition(s):</p>
<p><input type="checkbox"/> 7.b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programs of support.</p>	<p>Target(s): Time frame: Context for the ambition(s):</p>

1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050. [Please describe below e.g., coal phase out or reforming fossil fuel subsidies etc.]

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**SECTION 2: ACTIONS TO ACHIEVE THE AMBITION
FOCUS ON THOSE WITH FINANCIAL NEEDS**

2.1. Please add at least one key action for each of the elaborated ambition(s) from section 1. [Please add rows as needed].

<i>Ambition 7.1 & 7.2 - Scaling up access to electricity. Energize Zambia, Installation of 50,000 Solar Home Systems (2.5 million people)</i>	2018-2022
<i>Ambition 7.1 & 7.2 - Pay as You go Solar Home Systems has spread to 10 provinces with the aim of providing high-quality solar home systems to off-grid rural Zambian households</i>	2017-2021
<i>Ambition 7.2 - GET FiT Zambia is designed to assist the Zambian Government in the implementation of its REFiT Strategy and aims to procure and support Independent Power Producer (IPP) projects up to 200 MW, 100 MW solar PV, 100 MW small hydro & providing for a 3-year REFiT micro-generation allocation of initially 5 MW</i>	2017 - 2024
<i>Ambition 7.1-7.3 - The Increased Access to Electricity and Renewable Energy Production (IAEREP) project is in its final stage, providing early-stage seed finance in the form of grant funding to stimulate the emergence of sustainable business models for energy services to promote the use of renewable energy and energy efficiency at the national level and encourage the private sector to participate in the rural electrification programme.</i>	2016-2024
<i>Ambition 7.1, 7.2: The Beyond-the-Grid Fund, Zambia -aims to accelerate off-grid renewable energy electricity access to at least one million Zambians by 2021 targeting rural and peri-urban areas. It is an initiative for renewable energy investments outside the national power grid in Zambia. BGFZ aims to speed-up market access and market development, promoting the development of energy services targeted to poor consumers who already spend a high proportion of their disposable income on substandard forms of energy.</i> <i>BGFZ provides results-based financing to de-risk companies' entry into the Zambian market. To do this, the project works with the Zambian government and other stakeholders to build a more off-grid business-friendly regulatory environment.</i> <i>The Scaling of Clean Cooking Solutions programme. The first phase is to carry out a detailed scoping in Zambia looking into ways to test the use of Results-Based Financing (RBF) to incentivise the development and sales of innovative clean cooking solutions at scale. The second phase will include proposals for the detailed design of publicly financed instruments to incentivise the clean cooking sector to offer higher tier cooking solutions whilst mobilising private financing sources.</i>	2017-2025
<i>Ambition 7.1 Scaling biogas installations, Installation of 3500 domestic digesters by 2025</i>	By 2025
<i>Ambition 7.1 & 7.2 - Electrifi - this is an EU-supported financing mechanism aimed at supporting the market development and private sector initiatives for affordable, sustainable, and reliable energy solutions. The facility is flexible in its ability to provide a range of financing instruments at several stages of investment maturity, and offers investments of up to €10 million.</i>	By 2025
<i>Ambition 7.1 REACT Window of the Africa Enterprise Challenge Fund (AECF)-this is an FCDO-supported program that aims to increase access to clean, affordable energy for low-income people in Africa, by promoting a market-based approach for private sector delivery of solar home system products and services in the target countries. With a commitment of US\$ 10 million (£8 million), REACT Round 1 was launched in May 2017, and has funded ten</i>	By 2025

<i>companies operating in four countries, including Zambia.</i>	
<i>Ambition 7.2: (Scaling-Up Renewable Energy Programme, SREP) - 100 MW, Scaling-Up Renewable Energy Programme (SREP) is a funding window of Strategic Climate Fund with a budget of up to USD 40 million, which operates under the Climate Investment Funds (CIF) and aims to support scale up of green energy programs and increasing access to electricity, including wind and geothermal</i>	<i>By 2030</i>
<i>Ambition 7.1 & 7.2: The Electricity Services Access Project (ESAP), supported by the World Bank. The objective of the project is to increase electricity access in targeted rural and peri-urban areas and enhance the enabling environment for accelerated electrification in Zambia. The project will comprise three components namely; on-grid electricity access expansion, off-grid electricity access expansion and technical assistance.</i>	<i>2017-2025</i>
<i>Ambition 7.1 & 7.2: Solar for Health (S4Health) - UNDP's Solar for Health initiative supports governments to increase access to quality health services through the installation of solar energy photovoltaic systems (PV), ensuring constant and cost-effective access to electricity, while also mitigating the impact of climate change and advancing multiple Sustainable Development Goals.</i>	<i>2030</i>
<i>Ambition 7.2: Bwengwa River Geothermal Project</i>	<i>By 2030</i>
<i>Ambition 7.2 Alternative Renewable Energy Programme (AREP) is run by the Industrial Development Corporation, which is the continuation of the Participation in IFC Scaling Solar, a World Bank Group program that is helping developing countries procure low cost, privately financed, solar power. The Industrial Development Corporation. It is designed to get fast, affordable, utility-scale power up and running within two years of engagement.</i>	<i>By 2030</i>
<i>Ambition 7.1 & 7.2 Increased Access to Electricity and Renewable Energy Production (IAEREP) is supported by the European Union and is aimed at increasing access to clean, reliable and affordable energy and promoting renewable energy production and energy efficiency across Zambia</i>	<i>By 2025</i>
<i>Ambition 7.2 Mini hydro projects - feasibility, construction, commissioning, upscaling of small hydropower and mini grid development.</i>	<i>By 2030</i>
<i>Ambition 7.3 Power Factor Correction Programme DESCRIPTION - German funding GIZ, 40 million usd, need more funds to actualise, in design phase, offsetting carbon project</i>	<i>By 2030</i>

SECTION 3: OUTCOMES

3.1. Please add at least one measurable and time-based outcome for **each** of the actions from section 2. *[Please add rows as needed].*

Scaling Up Access to Electricity - Solar Home Systems 50,000 installations	2018-2025
Pay as You go Solar Home Systems - 100,000 installations	2017-2021
Get FIT 120 MW solar 100 MW hydro	By 2024
IAEREP - <ul style="list-style-type: none"> ● Financing of six projects, improving the electricity supply to 200,000 Zambians. ● Provide over 50,000 people and 500 small and medium-sized enterprises with access to energy. 	2021-2024
Beyond the Grid Fund: <ul style="list-style-type: none"> ● 300,000 off-grid electricity connections bringing clean energy access to 1.6 million people across Zambia. ● Report outlining the efficacy of Results-Based Financing to incentivize the development and sales of innovative clean cooking solutions at scale. ● Proposals developed for the detailed design of publicly financed instruments to incentivize the clean cooking sector to offer higher tier cooking solutions whilst mobilizing private financing sources. ● GOAL, number of cooking stoves? 	By 2025
Biogas development project - 3,500 4m2 domestic digesters by 2025	By 2025
Electrifi (Target TBD)	By 2025
REACT Household Solar Programme (DFID under ACE TAF) (Target TBD)	2017 to 2025
SREP - Wind 100 MW, Geothermal 2.2 MW, energy access in rural and peri-urban area	By 2030
ESAP: will provide a connection of electricity to 22,000 low income households and 1,000 medium and Small Scale Enterprises in rural parts of the country. SHARE THE QUANTITATIVE	2017-2022
Electrification of approximately 941 health clinics with solar energy by 2030	2030
Bwengwa River Geothermal Project 48,881MWh per annum over 20 years (Geothermal)	By 2030

AREP: 400MW (solar and wind)	By 2030
Increased Access to Electricity and Renewable Energy Production 20MW (mini grid and off-grid solutions)	By 2025
	By 2030
Power Factor Correction Programme - 194,331 MWh/year distribution savings, 2,596 MWh/y transmission savings	By 2030

SECTION 4: REQUIRED RESOURCES AND SUPPORT

4.1. Please specify required finance and investments for each of the actions in section 2.

Ambition 7.1 & 7.2 - Energize Zambia Total Funding required \$2,500,000 Funding Secured: \$400,000 Gap finance: \$2,100,000
Ambition 7.1 & 7.2 - Pay as You go Solar Home Systems Total Funding required \$2,300,000 Funding Secured: \$300,000 Gap finance: \$2,000,000
Ambition 7.2 - GET FiT Zambia Total funding required: Aprox. 100 million Euros, funding secured 33.5 Million Euros, financing Gap: Aprox. 60 Million
Ambition 7.1-7.3 - The Increased Access to Electricity and Renewable Energy Production (IAEREP) Total funding required:\$112, 616,200 Funding secured: 40 million euros
Ambition 7.1, 7.2: The Beyond-the-Grid Fund, Zambia Funding secured: 20 million euros
Ambition 7.1 Scaling biogas installations Total funding required:\$3,454,000 Funding secured: \$0

<p><i>Ambition 7.1 & 7.2 - Electrifi</i> <i>Total funding required: Funding secured: 40 million euros</i></p>
<p><i>Ambition 7.1 REACT</i> <i>Funding secured: \$10 million</i></p>
<p><i>Ambition 7.2: (Scaling-Up Renewable Energy Programme, SREP Wind power development project) -</i> <i>Total funding required: \$62 million, Funding secured: \$1.12 million, Funding Gap: \$60 million</i></p>
<p><i>Ambition 7.1 & 7.2: The Electricity Services Access Project (ESAP)</i> <i>Total funding required: \$ million, Funding secured: \$2.5 million, Funding Gap: \$ million</i></p>
<p><i>Ambition 7.1 & 7.2: Solar for Health (S4Health)</i> <i>Total funding required:\$4.7 Million USD Secured: 0 Gap: \$4.7 Million USD</i></p>
<p><i>Ambition 7.2: Bwengwa River Geothermal Project</i> <i>Total Funds required: \$60 Million; Funding Secured: \$5.5 Million</i></p>
<p><i>Ambition 7.2 Alternative Renewable Energy Programme (AREP)</i> <i>Total Funds required: \$600 Million Funds secured \$30 Million Gap: \$570 Million</i></p>
<p><i>Ambition 7.3 Power Factor Correction Programme</i> <i>Total funds required: Approx. 100 Million euros; Funding Secured: 40 Million Euros</i></p>

4.2. [For countries only] In case support is required for the actions in section 2, please select from below and describe the required support and specify for which action.

[Examples of support for Member States could include: Access to low-cost affordable debt through strategic de-risking instruments, capacity building in data collection; development of integrated energy plans and energy transition pathways; technical assistance, etc.]

<input checked="" type="checkbox"/> Financing	<i>Financial incentives through subsidies and other de-risking instruments for renewable energy projects such as the GET-FIT, and ESAP projects</i>
<input type="checkbox"/> In-Kind contribution	<i>Development of Regulatory framework for renewable energy technologies and mapping of RE resources</i>
<input checked="" type="checkbox"/> Technical Support	<i>Capacity building in Legal (Negotiation of Commercial Documents (IAs,PPAs, CAs)), Financial (Project Management/Finance for RE Projects Risk Management), Environmental (Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIAs)) and Technical</i>
<input type="checkbox"/> Other/Please specify	<i>Description</i>

SECTION 5: IMPACT

5.1. Countries planned for implementation including the number of people potentially impacted.

According to the Least Cost Geospatial Electrification Plan for Grid and Off-Grid Rollout (LCGEP), to achieve universal access by 2030, approximately 3.8 million households will require reliable and affordable grid and off-grid solutions over the next ten years. Increasing urban electrification from 67% to 100% and rural electrification from 4.5% to 50% means 7.3 million additional people in Zambia have access to electricity. As of 2019 only 16% of the population had access to clean cooking. By ensuring that 100% of the population has access to clean cooking approximately 15 million people will have benefited.

5.2. Alignment with the 2030 Agenda for Sustainable Development – Please describe how each of the actions from section 2 impact advancing the SDGs by 2030.

[up to 500 words, please upload supporting strategy documents as needed]

Each of the actions in section 2 are focused on increasing energy access, as under 40% of the population has access to energy. They also aim to increase the share of renewable energy to the energy mix, not just because it is climate friendlier, but also because the most effective and efficient way to get energy to rural areas in a sparsely populated and spread out country, such as Zambia is through off-grid solar. Access to electricity is a great enabler and therefore also advances a number of other SDGs such as SDGs 1, 2, 3 and 4. For example, when health clinics have access to electricity they are able to provide better care in simple and more complicated ways. Simply by having lighting, deliveries of babies at night are safer. Clinics can also have simple medical devices that can aid diagnosis or treatment. Increasing the percentage of electricity from renewable energy also contributes to SDG 13, climate action.

5.3. Alignment with Paris Agreement and net-zero by 2050 - Please describe how each of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050. *[up to 500 words, please upload supporting strategy documents as needed]*

Although Zambia is a low carbon emitter with high levels of poverty and highly impacted by climate change, the country has committed to reduce its greenhouse gas emissions by 25% (at Business As Usual (BAU) level of international support prevailing in 2015) and towards 47% (with substantial international support) compared to 2010 level. In order to improve quality of life indicators for her population, electrification is of highest priority and all actions highlighted in section 2 focus on increasing renewable energy, including biomass and solar (on- and off-grid).

SECTION 6: MONITORING AND REPORTING

6.1. Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

A monitoring and evaluation framework has been developed with support from the European Union (EU) IAREP project. A Monitoring and Information system is further being developed to serve as an electronic platform for monitoring and reporting in order to track KPIs, workstreams & projects.

SECTION 7: GUIDING PRINCIPLES CHECK LIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement I. 1.

Does the Energy Compact strengthen and/or add a target, commitment, policy, action related to SDG7 and its linkages to the other SDGs that results in a higher cumulative impact compared to existing frameworks?

X Yes No

I.2. Does the Energy Compact increase the geographical and/or sectoral coverage of SDG7 related efforts? Yes X No

I.3. Does the Energy Compact consider inclusion of key priority issues towards achieving SDG7 by 2030 and the net-zero emission goal of the Paris Agreement by 2050 - as defined by latest global analysis and data including the outcome of the Technical Working Groups? X Yes No

II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and

priorities. *II.1. Has the Energy Compact considered enabling actions of SDG7 to reach the other sustainable development goals by 2030?* X Yes No

II.2. Does the Energy Compact align with national, sectoral, and/or sub-national sustainable development strategies/plans, including SDG implementation plans/roadmaps? X
Yes No

II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action? X es No

III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

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III.1. Has the Energy Compact considered a timeframe in line with the net-zero goal of the Paris Agreement by 2050? X Yes No

III.2. Has the Energy Compact considered energy-related targets and information in the updated/enhanced NDCs? X Yes No

III.3. Has the Energy Compact considered alignment with reaching the net-zero emissions goal set by many countries by 2050? X Yes No

IV. Leaving no one behind, strengthening inclusion, interlinkages, and synergies - Enabling the achievement of SDGs and just transition by reflecting interlinkages with other

SDGs. *IV.1. Does the Energy Compact include socio-economic impacts of measures being considered?* X Yes No

IV.2. Does the Energy Compact identify steps towards an inclusive, just energy transition? X Yes No

IV.3. Does the Energy Compact consider measures that address the needs of the most vulnerable groups (e.g. those impacted the most by energy transitions, lack of energy access)? X Yes No

V. Feasibility and Robustness - Commitments and measures are technically sound, feasible, and verifiable based a set of objectives with specific performance indicators, baselines, targets and data sources as needed. V.1. Is

the information included in the Energy Compact based on updated quality data and sectoral assessments, with clear and transparent methodologies related to the proposed measures? X Yes No

V.2. Has the Energy Compact considered inclusion of a set of SMART (specific, measurable, achievable, resource-based and time based) objectives? X Yes No

V.3. Has the Energy Compact considered issues related to means of implementation to ensure feasibility of measures proposed (e.g. cost and financing strategy, technical assistant needs and partnerships, policy and regulatory gaps, data and technology)? X Yes No

SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

Republic of Zambia Energy Compact

8.2. Lead entity name (for joint Energy Compacts please list all parties and include, in parenthesis, its entity type, using entity type from below)

8.3. Lead entity type

Government

Non-Governmental Organization (NGO) Private Sector

8.4. Contact Information

Local/Regional Government Civil Society organization/Youth

Philanthropic Organization

Multilateral body /Intergovernmental Organization Academic Institution

/Scientific Community Other relevant actor

8.5. Please select the geographical coverage of the Energy Compact

Africa Asia and Pacific Europe Latin America and Caribbean North America West Asia Global

8.6. Please select the Energy Compact thematic focus area(s)

Energy Access Energy Transition Enabling SDGs through inclusive just Energy Transitions Innovation, Technology and Data Finance and Investment.

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SECTION 9: ADDITIONAL INFORMATION (IF REQUIRED)

Please provide additional website link(s) on your Energy Compact, which may contain relevant key documents, photos, short video clips etc.