

## Malawi SDG 7 Cleaner Cooking Energy Compact

Transformation in the Decade of Action: Toward Universal Access to Cleaner Cooking Solutions for All Malawians

### 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><input checked="" type="checkbox"/> <b>7.1.</b> By 2030, ensure universal access to affordable, reliable and cleaner energy services.</p>	<p><b>Target(s): Universal access to cleaner cooking solutions for all</b>  <u>Rural Population phases out open fires</u> through universal (100%) access to transitional, efficient wood stoves</p> <p><u>Urban Population reduces the share of unsustainably produced charcoal and transitions to alternative cooking fuels and/or sustainably produced charcoal</u></p> <p>Commercial and institutional users of cooking/heating energy transition to sustainable sources of fuel, efficient technologies for institutional catering and productive use of renewable energies</p> <p><b>Time frame:</b> 2021 - 2030</p> <p><b>Context for the ambition(s):</b> Inefficient cooking practices result in negative impacts for climate, environment and human health. Scalable solutions for efficient cooking technologies and alternative cooking fuels from sustainable sources are required to supply the 100% of the population by 2030. Malawi intends that all households and institutions have access to climate-friendly energy-saving or cleaner cooking solutions and can transition to technologies of choice. Currently, the market share and adoption rate of cleaner cooking technologies and alternative cooking fuels is very low, and uptake is slower than desired. The above targets were therefore, suggested by the National Cookstove Steering Committee (NCSC), which is a multi-stakeholder committee coordinated by development and private sector partners active in the cleaner cookstove and alternative cooking fuels sector, and chaired by the Ministry of Energy.</p>
<p><input checked="" type="checkbox"/> <b>7.2.</b> By 2030, increase substantially the share of renewable energy in the global energy mix.</p>	<p><b>Target(s):</b></p> <ul style="list-style-type: none"> <li>Decrease share of non-renewable biomass through sustainable and regulated production and sourcing of a mix of cooking fuels including renewable biofuels (e.g. solid biomass, ethanol, biogas etc.), LPG, and electricity from renewable sources, on a pathway to net-zero emissions by 2050</li> <li>Green economy investment measures for sustainable sourcing and production of alternative fuels, e.g.: solar electricity generation, waste-to-energy projects for production of biogas, pellets, briquettes (including provision of appropriated stoves corresponding to respective fuel types)</li> </ul> <p><b>Time frame:</b> 2021 – 2030 – 2050</p> <p><b>Context for the ambition(s):</b> There is a need to shift from unsustainable biomass energy sources to sustainable and diversified renewable energy production. The 2018 National Energy Policy (NEP) advocates for supporting waste to energy projects based on residues, especially from agricultural and forestry (biogas, briquettes, pellets) and support, by way of incentives, the growth of industries in manufacturing and distribution of improved cook stoves, briquette and pellet production infrastructure and charcoal kilns introduced.</p> <p>The 2018 NEP also advocates for incentivizing distribution licensees to devise schemes that will enable consumers to connect electricity to their homes and afford basic energy efficient electrical appliances. So far, lifeline tariffs have been introduced to enable low income households to afford electricity.</p>

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<input type="checkbox"/> <b>7.3.</b> By 2030, double the global rate of improvement in energy efficiency.	Target(s): Time frame: Context for the ambition(s):
<input type="checkbox"/> <b>7.a.</b> 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.	Target(s): Time frame: Context for the ambition(s):
<input type="checkbox"/> <b>7.b.</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.	Target(s): Time frame: Context for the ambition(s):

**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.]**

Target(s): Time frame: Context for the ambition(s):
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**SECTION 2: ACTIONS TO ACHIEVE THE AMBITION**

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

<b>Description of action (please specify for which ambition from Section 1)</b>	<b>Start and end date</b>
<b>Ambition 7.1:</b> <ul style="list-style-type: none"> <li>Scale local production of transitional firewood stoves and lubricate distribution chain with incentives where needed from transport and wholesale to retail distribution into remote rural areas to leave no one behind</li> <li>Scale availability of ultra-efficient charcoal stoves and a mix of alternative sustainable cooking fuels (sustainably produced charcoal, briquettes, pellets, biogas, LPG, electricity)</li> <li>Lobby for customs, excise and VAT waivers on locally produced and imported fuels and cooking technologies (including domestic low-consuming electric cooking and water heating appliances) to boost private sector commitments and participation in sustainable industrial processes and competitiveness in cleaner cooking spaces</li> <li>Carry out targeted civic education mechanisms by all stakeholders to push for transition and access to energy efficient cooking solutions</li> </ul>	Ongoing until 2030  2021 – 2030  Ongoing until 2023  2021-2030

<b>Description of action (please specify for which ambition from Section 1)</b>	<b>Start and end date</b>
<p><b>Ambition 7.2:</b></p> <ul style="list-style-type: none"> <li>• Harmonise policies and coordinate implementation efforts for environmental sustainability e.g.: forest landscape restoration, climate action, access to finance, research and development, standardization of cleaner cooking solutions</li> <li>• Develop a list of approved incentives (e.g.: fiscal incentives, cost subsidies, capital cost grants, capital cost credits/loans, market identification, lobbying, changing/creating a Favourable Regulatory Framework for private sector, etc.) and produce sub-sector reports so that more stakeholders get engaged and involved in manufacturing and distributing cooking fuels and technologies. <ul style="list-style-type: none"> <li>○ Enhance private sector commitments and strong partnerships to scale efficient manufacture, supply, use and financing of Cleaner Cooking technologies and fuels</li> <li>○ Engage private sector players and civil society in production of electric power for low-consuming electric cooking devices</li> <li>○ Undertake feasibility studies and develop a list of sites for power generation from hydro, geothermal, solar, wind, agricultural waste, forestry waste, and biogas resources for investors to contribute to the alternative energy solutions for cooking</li> <li>○ Capital costs for Government entering into partnerships (with PPPs, NGOs, communities, etc.) to operate/implement sites upon concessions signed with government for energy production technologies that contribute to alternative energy solutions for cooking</li> </ul> </li> <li>• Lobby for increased availability of affordable yet performing low-consuming electric devices</li> <li>• Strengthen law enforcement using existing and new structures to establish, regulate and protect efforts for sustainable sourcing of wood-fuel in order to promote sustainable commercial forestry for firewood and charcoal production</li> <li>• Incentivise private sector investment to establish manufacturing plants for the production and distribution of different biomass technologies, as well as sustainable commercial forestry for firewood and charcoal production</li> <li>• Ensure availability of LPG, biogas and natural gas in sufficient quantities at affordable prices for industrial and domestic uses.</li> <li>• Making use of existing Regulatory Frameworks, e.g.: existing Charcoal Regulations for production, storage, distribution and transportation</li> </ul>	<p>2019 – 2023</p> <p>Ongoing until 2023</p> <p>Ongoing until 2023</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>

### 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].*

<b>Outcome</b>	<b>Date</b>
<p><b>Outcomes for Ambition 7.1 (projected population figures by 2030: ca. 25 Million people in total, out of which 21 Million rural, 4 Million Urban)</b></p> <ul style="list-style-type: none"> <li>• 60% of rural households transitioned to stove stacking by using more than one fixed and/or portable efficient wood stove</li> <li>• 40% of rural households transitioned to at least one efficient wood stove by 2030</li> <li>• 30% of urban households transitioned to ultra-efficient charcoal stoves by 2030</li> <li>• 10% of urban households transitioned to sustainably produced, licensed charcoal by 2030</li> <li>• 10% of urban households transitioned to LPG by 2030</li> <li>• 3% urban households transitioned to self-sustaining biogas systems, pellets, briquettes and other alternative biomass fuel solutions</li> <li>• 15% urban households transitioned to low-consumption electric cooking by 2030</li> <li>• 100 commercial users have transitioned to renewable energy including sustainable biomass</li> </ul>	<p>2030</p>
<ul style="list-style-type: none"> <li>• 3 programs implemented by government to build capacity of LPG, biogas and natural gas</li> </ul>	<p>Ongoing until 2023</p>

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<ul style="list-style-type: none"> <li>• An additional 2,000,000 improved biomass cookstoves distributed by 2025</li> <li>• An additional 3,000,000 improved cookstoves for both biomass and alternative cooking fuels by 2030</li> </ul>	<p>Ongoing until 2025 Ongoing until 2030</p>
<ul style="list-style-type: none"> <li>• CSO community initiatives ensuring that 55,000 rural men and women per year are trained to make and use improved cookstoves using locally available materials</li> <li>• Customs, excise and VAT exemptions for efficient stoves and alternative sustainable fuels in place</li> </ul>	<p>Ongoing Ongoing until 2023</p>
<p><b>Outcomes for Ambition 7.2</b> The 2018 NEP outlines assessable outcomes as follows:</p> <ul style="list-style-type: none"> <li>• 100 charcoal kiln projects implemented</li> <li>• 50 biomass briquette or pelletising projects implemented</li> <li>• 200,000 small (5kg) LPG cylinders and small gas cookers bought and used by households</li> <li>• 75% of charcoal makers commercially growing and using alternatives to natural trees for charcoal production</li> <li>• 300 entrepreneurs benefitting from incentives and activities of manufacturing and distributing biomass technologies (disaggregated by location, sex and technology type).</li> <li>• 100 industry players trained in safety in LPG, biogas and natural gas industry</li> </ul>	<p>Ongoing until 2023</p>

#### SECTION 4: REQUIRED RESOURCES AND SUPPORT

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

Finance and Investments for Ambition 7.1

- USD149 million

Finance and Investments for Ambition 7.2

- USD447 million

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	<p><i>Description</i> The Ministry will lobby for increased access to climate finance and donor support together with the Ministry of Forestry and Natural Resources</p>
<input checked="" type="checkbox"/> In-Kind contribution	<ul style="list-style-type: none"> <li>• Personnel, e.g.: seconded experts made available to the Ministry of Energy,</li> <li>• capacity building in various cooking energy technologies,</li> <li>• Lab testing equipment for the Malawi Bureau of Standards to adhere to domesticated ISO protocols for testing stoves and fuels</li> </ul>
<input checked="" type="checkbox"/> Technical Support	<p>Contributions by private sector and implementing partners of National Cookstove Steering Committee</p>
<input checked="" type="checkbox"/> Other/Please specify	<p>Increased donor support, activities carried out by implementing partners of National Cookstove Steering Committee</p>

## SECTION 5: IMPACT

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

#### Malawi

25 Million people by 2030 (that's the entire population projected at the time) have access at least to transitional firewood technologies and are aware of alternatives to unsustainably produced charcoal and firewood. This results in reduced GHG emissions, reduced health impacts (respiratory illnesses and musculoskeletal injuries, etc.), fuel, time and labour savings, alternative income generation reducing poverty levels, increased forest restoration, and reduced land degradation. Currently the majority 85% of the population live in rural areas and only 15% in urban areas.

### 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]*

**7.1.** The main aim is to create access to a transitional affordable firewood technology for the entire rural and peri-urban population expected to be over 20 Million by 2030 in order to phase out the currently used open fires without having to change the energy source, but reduce the firewood consumption and related emissions by at least 40%. Especially for the urban population, the main goal is to reduce unsustainably produced charcoal through enhancing access to alternative cooking fuels, accompanied by the access to the respective efficient cooking appliances suitable for the alternative fuels. This is directly contributing to universal access to affordable and reliable energy.

**7.2.** Supporting the production of alternative fuels and stoves will increase the availability of affordable options and thus increase access to affordable, reliable and cleaner cooking energy for a larger share of the population, although universal access might not be achieved yet by 2030 especially for the more capital-intensive fuels.

### 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]*

**7.1.** In Malawi 81.6 % of solid biomass is considered non-renewable. Transitioning users of non-renewable biomass to more efficient technologies or fuels from sustainable sources will contribute directly to reduce GHG emissions: To transition over 4 Million households from open fires to simple firewood stoves is estimated to reduce the consumption of firewood by 40%, potentially reducing GHG emissions at least by 1 ton CO<sub>2</sub> equivalent per household per year. Transitioning institutional caterers and users of firewood for productive use can reduce firewood consumption by up to 70%. Transitioning urban households to alternative or sustainable fuels will further reduce the emissions caused in the production and usage of unsustainable charcoal from non-renewable biomass.

**7.2.** Shifting from unsustainable biomass energy sources to sustainable and diversified renewable energy production will lead to reduction of GHG emissions. On the pathway to net-zero emissions by 2050 the entire biomass fuels should come from sustainably managed renewable sources whereby the main responsibility lies with the Ministry of Forestry and Natural Resources. For the Ministry of Energy, expanding the cooking fuel resource base other renewable energy sources will be built up (ethanol, biogas, etc.) and electricity generation from renewable sources (PV, wind, geothermal etc.) will be prioritized. LPG still plays an important role to quickly reduce unsustainable charcoal, so that its climate impact as a fossil fuel is estimated to be outweighed by the gains at least for the natural resources.

## 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.

The main focus of this energy compact is the household cooking energy. The cooking energy situation of households will be incorporated in more detail in the population census to capture the relevant information on cooking technologies and fuel use at no or low additional cost. This will inform the detailed outcome figures.

Geospatial observation and mapping exercises carried out by existing institutions (e.g.: SEforALL) and programmes will be used for monitoring the natural resource base.

Consolidated reporting of members of the National Cookstove Steering Committee, who implement cleaner cooking activities, will continue to be used to complement reporting by the activities carried out by the Ministry of Energy. Reports from the production industry (both stoves and fuels) will be sought and additional information extracted from the relevant existing associations like MBAULA Network on cookstoves, Renewable Energy Industries Association of Malawi, etc.

## 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?*

Yes No

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

*II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action?* Yes 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.

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

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

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

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

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

## SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

Transformation in the Decade of Action: toward universal access to cleaner cooking solutions for all Malawians.

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)

Ministry of Energy (Government) and National Cookstove Steering Committee (Non-Governmental Organisations, Civil Society organisations/Youth, Academic Institutions/Scientific Community, Private Sector)

8.3. Lead entity type

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Government                          | <input type="checkbox"/> Local/Regional Government                   | <input type="checkbox"/> Multilateral body /Intergovernmental Organization     |
| <input checked="" type="checkbox"/> Non-Governmental Organization (NGO) | <input checked="" type="checkbox"/> Civil Society organization/Youth | <input checked="" type="checkbox"/> Academic Institution /Scientific Community |
| <input checked="" type="checkbox"/> Private Sector                      | <input type="checkbox"/> Philanthropic Organization                  | <input type="checkbox"/> Other relevant actor                                  |

8.4. Contact Information

**Ministry of Energy**  
Joseph Kalowekamo, Deputy Director of Energy  
[jkalowek@gmail.com](mailto:jkalowek@gmail.com) and [jkalowekamo@energy.gov.mw](mailto:jkalowekamo@energy.gov.mw)

**National Cookstoves Steering Committee**  
Karina Ivanova, United Purpose (NCSC Secretariat)  
[karina.ivanova@united-purpose.org](mailto:karina.ivanova@united-purpose.org)

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.

## 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.

- [Government of Malawi - Ministry of Energy](#)
- [Malawi National Cookstove Database](#)
- [Malawi National Energy Policy \(2018\)](#)
- [Malawi Sustainable Energy Investment Study](#)
- [Woodfuel Integrated Supply/Demand Overview Mapping \(WISDOM\) Malawi Study](#)
- [Movement for Bio-energy Advocacy Utilisation Learning and Action \(MBAULA\) Network](#)
- [Cleaner Cooking Coalition](#)