



SDG7 Energy Compact of Mauritius

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, and make sure to state the baseline of each target]

(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)

<input type="checkbox"/> 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.	Target(s): Completion of the ongoing transition to a Smart Grid Time frame: 2030 Context for the ambition(s): The smart grid will digitize the power system, support the integration of renewable energy and improve operational efficiency.
<input type="checkbox"/> 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.	Target(s): Achieve 60% of renewables in the electricity mix Time frame: 2030 Context for the ambition(s): Mauritius intends to progressively reduce its carbon emission from its electricity grid by 2030. In that regard, in its National Budget 2021/22, Government has furthered its energy transition ambition by increasing the target of share of renewables in the electricity mix from 40% to 60% by 2030. The achievement of the target will allow the reduction of our dependency on the import of fossil fuels and will also contribute in the reduction of GHGs emission. In addition, coal used for power generation, would be completely phased out by the said horizon.

<input type="checkbox"/> 7.3. By 2030, double the global rate of improvement in energy efficiency.	<p>Target(s): Reduce electricity demand by 10% with 2019 as base year Time frame: 2030 Context for the ambition(s): Mauritius made the pledge to reduce its electricity demand by 10%, with 2009 as base year, to the UNFCCC in 2015, with a view to reduce its carbon emission during the production of electricity. This target has been achieved and Mauritius intends to reduce its electricity demand by 10%, with 2019 as base year.</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>Target(s): Time frame: Ongoing Context for the ambition(s): Mauritius is in the forefront of regional cooperation through institution such as the SADC, AfDB and through international institutions such as IRENA, World Bank, AFD, UNDP, GCF and GEF.</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>Target(s): To increase battery energy storage system to 38 MW Time frame: 2024 Context for the ambition(s): The target of Government is to achieve 60% of renewables in the electricity mix by 2030. Accordingly, Government plans to install a total of 38MW of battery energy storage system (BESS) by 2024 to stabilize the frequency of the grid and to allow the absorption of at least 350MW of intermittent power, including the 115MW already installed. 18MW of the BESS will be installed by December 2021.</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.]

Target(s): Phasing out of coal for power generation by 2030.

Time frame:

Context for the ambition(s):

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].*

<i>Description of action (please specify for which ambition from Section 1)</i>	<i>Start and end date</i>
<p><u>SDG 7.1:</u></p> <ul style="list-style-type: none"> A. Deployment of Smart Meters, Advanced Distribution Management System (ADMS), Wide Area Management System (WAMS) and Automatic Generation Control (AGC) B. Modernisation of Major Substations (Outdoor AIS to Indoor GIS) C. Installation of 18 MW BESS of Lithium Ion technology for frequency regulation to support integration of Variable Renewable Energy Sources (VRES) D. Installation of 20 MW BESS of Lithium Ion technology for peak shaving 	<p>2017 – 2030</p> <p>2018 – 2030</p> <p>2019 – December 2021</p> <p>2021 - 2023</p>
<p><u>SDG 7.2:</u></p> <ul style="list-style-type: none"> A. Government released a Renewable Energy Roadmap 2030 for the Electricity Sector, charting the way to achieve 40% of renewables in the electricity mix by 2030. With the recent revision in RE target, to 60% by 2030, the relevant institution is updating the roadmap, to identify the most economic and feasible scenario to achieve the said target. B. A new 40MW wind farm will be installed by 2024. C. Installation of 3*10 MW Utility Scale PV Farm. D. Construction of a 2MW floating PV in the reservoir of a hydropower plant; E. The relevant authorities will investigate the possibility of using hybrid renewable energy as base-load and other new sources of renewable energy such as waste-to-energy, offshore wind, wave and tidal for 	<p>2020 – December 2021</p> <p>2021 - 2024</p> <p>2021 - 2023</p> <p>2021 – 2023</p> <p>2021 - 2030</p>

production of electricity.	
<p><i>Description of action (please specify for which ambition from Section 1)</i> <u>SDG 7.3:</u></p> <p>A. Apply a levy on energy inefficient appliances, as listed below, to make them unattractive to customers financially.</p> <ul style="list-style-type: none"> i. refrigerators, ii. dish washers, iii. electric ovens, iv. air conditioners, v. tumble dryer; and vi. lamps <p>B. To increase the mandatory energy labelling from three appliances (refrigerators, dishwashers and electric oven) to seven (additional: TVs, tumble driers, air conditioners and washing machines).</p> <ul style="list-style-type: none"> i. refrigerators, ii. dish washers, iii. electric ovens, iv. TVs, v. Tumble driers, vi. Air Conditioners, vii. Washing Machines <p>C. Large energy consumers are required to carry out mandatory energy audits to reduce their energy use intensity. 61 notifications for mandatory energy audits have been issued to large energy consumers as of August 2021. 18 large energy consumers out of 61 have already carried out their energy audits.</p> <p>D. To carry out talks on energy saving and energy efficiency in Community Centres and Social Welfare Centres around the island as</p>	<p><i>Start and end date</i></p> <p>Every 3 years (Start: 2014); Every 3 years (Start: 2014) Every 3 years (Start: 2014) Every 3 years (Start: 2014) Every 3 years (Start: 2014) Every 3 years (Start: 2014)</p> <p>Completed: 2017 Completed: 2017 Completed: 2017 2022 2022 2023 2023</p> <p>2030</p> <p>Annual Exercise (Start: 2015)</p>

<p>well as in primary schools, so as to inculcate a culture of energy saving and energy efficiency in the country. The talks carried out yearly are given below:</p> <ul style="list-style-type: none"> i. 2015: 15 ii. 2016: 24 iii. 2017: 30 iv. 2018: 59 v. 2019: 70 vi. 2020: 8 <p>E. Setting up of Energy Performance Contracting:</p> <ul style="list-style-type: none"> i. Consultancy for Development of a Framework to set up Energy Performance Contracting; ii. Implementation of the Framework for Energy Performance Contracting 	<p>2022 – 2024</p> <p>2024 - 2026</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> <u>SDG 7.b:</u> A. Another 20MW of BESS will be installed to make the total installed capacity of BESS 38MW.</p>	<p><i>Start and end date</i></p> <p>October 2021 - 2023</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> <u>Phasing out of coal for power generation by 2030:</u> A. Existing Power Purchase Agreement (PPA) when expired will only be renewed upto a maximum period leading to 2030. No PPA for coal will be effective after 2030. The PPA for a new coal power was cancelled in 2015. Another one was not renewed upon expiry in December 2018. A 3rd PPA will be expired in September 2025 and will not be renewed.</p>	<p><i>Start and end date</i></p> <p>2015 - 2030</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].*

<i>Outcome</i>	<i>Date</i>
SDG 7.1 – Action A: <ul style="list-style-type: none"> • Installation of 25,000 smart meters on a yearly basis 	Annual
SDG 7.1 – Action B: <ul style="list-style-type: none"> • Installation of 10 GIS 	2025
SDG 7.1 – Action C: <ul style="list-style-type: none"> • 4 MW BESS is already operational. An additional of 14MW will be operational by December 2021 	December 2021
SDG 7.1 – Action D: <ul style="list-style-type: none"> • Operation of additional 20 MW BESS 	2023
SDG 7.2 – Action A: <ul style="list-style-type: none"> • Approval of revised Renewable Energy Roadmap 2030 by Government 	December 2021
SDG 7.2 – Action B: <ul style="list-style-type: none"> • Operation of 30-40 MW wind farm 	2024
SDG 7.2 – Action C: <ul style="list-style-type: none"> • Operation of 3 PV Farms, each 10 MW 	2023
SDG 7.2 – Action D: <ul style="list-style-type: none"> • Installation of 2MW Floating PV 	2023

<p>SDG 7.2 – Action E:</p> <ul style="list-style-type: none"> • Installation of other new potential RE technologies 	<p>2030</p>
<p>SDG 7.3 – Action A:</p> <ul style="list-style-type: none"> • Reduction in number of energy inefficient appliances imported in the country <p>SDG 7.3 – Action B:</p> <ul style="list-style-type: none"> • Make energy labelling mandatory for: <ul style="list-style-type: none"> i. TVs, ii. tumble driers, iii. air conditioner and iv. washing machines <p>SDG 7.3 – Action C:</p> <ul style="list-style-type: none"> • Carry out mandatory energy audits by registered Energy Auditor in 240 large energy consumers <p>SDG 7.3 – Action D:</p> <ul style="list-style-type: none"> • Conduct 60 talks in institutions, including schools, annually <p>SDG 7.3 – Action E:</p> <ul style="list-style-type: none"> • Establish a regulatory framework, including regulations and/or templates of EPC documents 	<p>Review of energy e efficiency threshold every 3 years</p> <p>2022</p> <p>2022</p> <p>2023</p> <p>2023</p> <p>2030</p> <p>Annual</p> <p>2026</p>
<p><u>SDG 7.b – Action A:</u></p> <ul style="list-style-type: none"> • Installation of 20MW BESS. 	<p>2023</p>

SECTION 4: REQUIRED RESOURCES AND SUPPORT

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

<p>SDG 7.1 – Action A:</p> <ul style="list-style-type: none"> • Deployment of Smart Meters, ADMS, WAMS, AGC <p>SDG 7.1 – Action B:</p> <ul style="list-style-type: none"> • Modernisation of Major Substations (Outdoor AIS to Indoor GIS) <p>SDG 7.1 – Action C:</p> <ul style="list-style-type: none"> • Installation of 18 MW BESS of Lithium Ion technology for frequency regulation to support integration of VRES <p>SDG 7.1 – Action D:</p> <ul style="list-style-type: none"> • Installation of 20 MW BESS of Lithium Ion technology for peak shaving 	<p>Will be financed by the Power Utility</p> <p>Will be financed by the Power Utility</p> <p>Will be financed by the Power Utility</p> <p>Will be financed by the Power Utility</p>
<p>SDG 7.2 – Action A:</p> <ul style="list-style-type: none"> • Revision of Renewable Energy Roadmap 2030 <p>SDG 7.2 – Action B:</p> <ul style="list-style-type: none"> • A new 40MW wind farm will be installed by 2024. <p>SDG 7.2 – Action C:</p> <ul style="list-style-type: none"> • Installation of 3*10 MW Utility Scale PV Farm. <p>SDG 7.2 – Action D:</p> <ul style="list-style-type: none"> • Construction of a 2MW floating PV in the reservoir of a hydropower plant (Tamarind Falls Reservoir) 	<p>Will be carried out in-house</p> <p>Will be financed by private sector</p> <p>Will be financed by private sector</p> <p>Will be financed by the Power Utility</p>

<p>SDG 7.2 – Action E:</p> <ul style="list-style-type: none"> • Installation of other new potential RE technologies 	<p>Will be financed by Private Sector</p>
<p>SDG 7.3 – Action A:</p> <ul style="list-style-type: none"> • Increase in levy on energy inefficient appliances such as refrigerators, dish washers, electric ovens, air conditioners, etc. in view to make them unattractive to customers financially. 	<p>Being carried out in-house</p>
<p>SDG 7.3 – Action B:</p> <ul style="list-style-type: none"> • To increase the mandatory energy labelling from three appliances (refrigerators, dishwashers and electric oven) to seven (additional: TVs, tumble driers, air conditioners and washing machines. 	<p>Being carried out in-house</p>
<p>SDG 7.3 – Action C:</p> <ul style="list-style-type: none"> • Large energy consumers are required to carry out mandatory energy audits to reduce their energy use intensity. 	<p>Private Sector</p>
<p>SDG 7.3 – Action D:</p> <ul style="list-style-type: none"> • To carry out talks on energy saving and energy efficiency in Community Centres and Social Welfare Centres around the island as well as in primary schools, so as to inculcate a culture of energy saving and energy efficiency in the country. 	<p>Provided in the annual National Budget</p>
<p>SDG 7.3 – Action E:</p> <ul style="list-style-type: none"> • Setting up of Energy Performance Contracting. 	<p>USD 232,000</p>
<p><u>SDG 7.b – Action A:</u></p> <ul style="list-style-type: none"> • Another 20MW of BESS will be installed to make the total installed capacity of BESS 38MW 	<p>Will be financed by the Power Utility</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	<p><i>SDG 7.3 – Action E:</i></p> <p><i>i. Hiring of a Consultancy Firm to develop a regulatory framework including regulations and/or templates of EPC documents, EPC guidelines, contract templates and provision of training to companies on EPC and ESCO concept</i></p>
<input type="checkbox"/> In-Kind contribution	<p><i>Description</i></p>
<input checked="" type="checkbox"/> Technical Support	<p><i>SDG 7.2 – Action C:</i></p> <p><i>i. Technical support for carrying out feasibility studies on emerging/innovative technologies</i></p> <p><i>SDG 7.3 – Action C:</i></p> <p><i>i. Capacity building in energy auditing for industrial processes</i></p> <p><i>SDG 7.3 – Action E:</i></p> <p><i>i. Technical Assistance for the development and implementation of a framework for Energy Performance Contracting</i></p>
<input type="checkbox"/> Other/Please specify	<p><i>Description</i></p>

SECTION 5: IMPACT

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

Republic of Mauritius – 1.3M inhabitants. About 470,000 customers would be impacted, as given below:

- Household: 420,000
- Commercial: 42,000
- Industrial: 5,500 &
- Others: 1,500

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]

99.7 % of the population is already connected to the electricity grid in Mauritius. The actions listed under SDG 7.1 will improve the electricity supply service to the consumers and the stability and performance of the distribution grid, through the installation of smart meters, ADMS, WAMS and AGC. Those listed under SDG 7.2 will support Mauritius in increasing its share of renewables in the electricity mix. As such, our dependency on non-renewable sources will decrease, the GHG emissions will decrease, thus allowing Mauritius to contribute to potentially achieve the carbon neutrality by 2070. In addition, Government is also taking measures to improve electricity use efficiency. The actions listed under SDG 7.3 will improve energy efficiency in household sector, by facilitating the penetration of energy efficient technology, reducing electricity peak demand and growth in demand by sensitizing consumers to select energy efficient technology and raising awareness on energy efficiency. Finally, the actions listed under SDG 7.b will improve grid stability and will enable the penetration of about 350 MW of renewables in the electricity supply system.

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]

Mauritius had pledged at COP 26 in Glasgow to reduce its carbon emissions by 40% by 2030 and to lower its electricity demand by 10% by 2030, against the BAU scenario. The actions listed in Section 2 are aligned with these pledges and will enable the country to increase its renewable energy share in the mix aiming the target of 60% by 2030, from the current level of 24%.

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 Standing Committee at the level of the Ministry of Energy and Public Utilities is regularly monitoring and tracking the progress of the proposed outcomes.

SECTION 7: GUIDING PRINCIPLES CHECKLIST

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

Mauritius Renewable Energy and Energy Efficiency 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)

- i. Ministry of Energy and Public Utilities (Government);
- ii. Central Electricity Board (Government);
- iii. Energy Efficiency Management Office (Government); and
- iv. Mauritius Renewable Energy Agency (Government)

8.3. Lead entity type

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

8.4. Contact Information

- i. Ministry of Energy and Public Utilities: The Permanent Secretary – mpu@govmu.org;
- ii. Central Electricity Board: The General Manager; – ceb@intnet.mu;
- iii. Energy Efficiency Management Office: The Director – eemo@govmu.org
- iv. Mauritius Renewable Energy Agency: The Chief Executive Officer – ceo@marena.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.