



**SDG7 Energy Compact of the Ministry of Energy and Hydrocarbons (MEH) – Madagascar
August 2022**

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)

<p><input checked="" type="checkbox"/> 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.</p>	<p>Target(s): (i) Sustainable access to modern energy (electricity and lighting) by 70% of households in 2030 compared to 25% in 2021 (ii) equipment in improved cooking stoves by 50% of households in 2030, if in 2015, 4% of households used improved cooking stoves (iii) using fuels of biological origin by 20% of households in 2030.</p> <p>In 2030, 2 500 000 households will be using clean cooking solutions.</p> <p>Time frame: 2022-2030</p> <p>Context for the ambition(s): (i) The electrification rate in Madagascar is among the lowest in Africa, demand exceeds supply, and electricity supply, especially in rural areas, is scarce.</p> <p>Indeed, only 25% of the population has access to modern electricity: a figure which is better in urban areas with 74% and which drops to 15% in rural areas where more than 70% of the population resides. Thus, more than 15 million inhabitants are not connected to an electricity network, constituting a brake on the quality of life of the inhabitants, on the socio-economic improvement of the country and consequently a brake on sustainable development.</p> <p>Without access to electricity, the majority of the population then depends entirely on traditional and fossil fuels such as wood for heating and food, causing a significant impact on deforestation and health. In addition, the lack of electricity limits the development of productive economic activities, the improvement of instruction and education and that of sanitary conditions.</p> <p>Increasing access to electricity and lighting can be achieved in a cost-effective way through the combination of the following systems: extension and interconnections of networks, the development of mini-grids as well as the use of Solar Home Systems (SSD) and solar lights The interconnection of the networks would make it possible to generate economic, technical and in some cases environmental benefits on a regional and national scale.</p> <p>In addition, several operating centers are still victims of load shedding of essentially economic but also technical origin. These power cuts are less and less supported by the population and strongly degrade the image of JIRAMA (national operator) and by extension the public authorities. To fight against load shedding and control the evolution of the cost of electricity production, new means of production will be developed, mainly from renewable sources. Off- grid solar technology, in particular the installation of solar power plants and the distribution of quality solar kits, are thus envisaged to meet these demands.</p>
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	<p>In 2030, 2 500 000 households will be using clean cooking solutions.</p> <ul style="list-style-type: none"> (ii) Equipment with improved cooking stoves for 50% of households (iii) Using fuels of biological origin for 20% of households <p>Madagascar is the African country with the least recourse to clean cooking means (Electricity, LPG, Ethanol, Ecological coal, Biogas), with less than 12% of households using clean fuels and using improved wood- or coal-fired cooking ovens.</p> <p>Malagasy households mainly use solid fuels, regardless of their geographical location. However, in urban areas, charcoal is the most widely used fuel source, while in rural areas, the main fuel source is wood. Other solid fuels used by about 20% of households (or less) include charcoal, straw, branches, grass and agricultural residues. Household income also affects the cooking fuel choice of Malagasy households, as higher income households will tend to use charcoal while poorer ones will tend to use wood.</p> <p>The semi-industrial production of improved ovens is only in its infancy in Madagascar. The cooking oven market in Madagascar is dominated by small producers, scattered across the country, producing mainly artisanal ovens. Many of these producers make charcoal stoves, while some of them produce wood stoves.</p> <p>Compared to other East African markets, the LPG market in Madagascar is relatively underdeveloped. As Madagascar does not have oil refineries, petroleum products such as LPG must be imported by major oil companies. This induces a relatively expensive price compared to the purchasing power of Malagasy households, but also a price dependent on the fluctuation of the price of the barrel internationally.</p> <p>Although the ethanol market is nascent, there are some signs of activity and developers who want to invest in this sector on a large scale. There are also micro-distilleries of ethanol supplying local customers, and on a small scale.</p> <p>A few models of stoves are also available on the market, ranging from 20 to 30 dollars each, still expensive for the wallets of Malagasy households. According to a recent feasibility study carried out for the World Bank, the production of ethanol would be between 0.50 and 0.60 dollars per liter but given the early stage of development of the current distilleries, their production costs are around two times higher. The current selling price of ethanol produced in the country is around \$1.50/liter, if the petroleum costs \$0,7/liter.</p> <p>Regarding Biogas, the most recent figures available (2015) indicate that 492 household biogas biodigesters have been built in Madagascar, based on a standard fixed dome model of 10m³ and a solid concrete dome serving as a mold, without forgetting 8 institutional digesters between 30m³ and 40m³. Such systems can last twenty years or more if properly maintained. However, this market fails to convince even small industries because the main obstacle remains the high initial cost of the devices, as well as the lack of companies and trained workers to build them correctly. The cost of building biogas systems ranges from \$2,500 to \$3,500 for 10m³. Given that the average GDP per capita in Madagascar is currently around \$450 per year, the initial cost of the biogas production system is beyond the financial capacity of most households.</p>	
<p>☒ 7.2. By 2030, substantially increase the share of renewable energy in the global energy mix.</p>	<p>Target(s): Increase in the share of clean and renewable energies in energy production using 85% of renewable resources in 2030 if it is only 40% currently.</p> <p>Time frame: 2022- 2030</p> <p>Context for the ambition(s):</p> <p>The geographical distribution of most Malagasy localities has meant that the national electricity company JIRAMA (Jiro sy Rano Malagasy), has set up various isolated centers in several cities in Madagascar, in more than a hundred county towns of Districts and Communes. Unfortunately, these centers operate with diesel (GO) or heavy fuel oil (HFO) thermal units.</p> <p>However, the country has significant potential in terms of renewable energy production resources such as solar, wind, hydro and organic, which are just waiting to be exploited. With an incident energy of around 2,000 kWh/m²/year, Madagascar has significant solar energy potential with 2,800 hours of</p>	

	<p>annual sunshine in almost all regions. The country also has a hydroelectric potential of 7.8 GW of which a large number of production sites have already been identified, and these sites are very diversified in terms of their size, from micro-hydraulic to sites of several hundred MW spread over the island. The country also has 2,000 MW of wind power. However, the marketing and use of equipment promoting solar and wind energy are still modest in Madagascar.</p> <p>In this approach towards the energy transition provided for in strategic axis No. 3 of the National Plan for Adaptation to Climate Change (PNA) of Madagascar, and thus provide clean, sustainable energy at a lower cost for all, the Ministry in charge of Energy, as technical supervision of JIRAMA, also proposes to hybridize the thermal power plants of JIRAMA, by photovoltaic solar energy production facilities, with prioritization of remote centers in the North-West , West and South-West of Madagascar. The uncontrollable fluctuation in the price of oil, the galloping increase in logistics and transport costs, as well as the harmful effects of carbon emissions due to the use of petroleum products are forcing the Malagasy State to deploy other sustainable solutions. and more environmentally friendly.</p>	
<p><input checked="" type="checkbox"/> 7.3. By 2030, double the global rate of improvement in energy efficiency.</p>	<p>Target(s): Improvement of electrical and thermal energy efficiency by households, businesses and industries, public infrastructures (including public health centers) by 60% in 2030.</p> <p>Time frame: 2022- 2030</p> <p>Context for the ambition(s):</p> <p>Energy efficiency is a cross-cutting theme for reducing energy losses in the transport, distribution and consumption of electricity, in the transformation and energy use of biomass, as well as reducing the consumption of petroleum products for power generation and for commercial and industrial uses.</p> <p>For households, energy efficiency measures in electricity consumption (light bulbs and low consumption electrical equipment) will be adopted by 60% of them by 2030 and support programs for information and sensitization on access to adapted technologies will be carried out.</p> <p>The use of firewood and charcoal represents more than 85% of the energy consumed in households and the wood used comes mostly from illegal and destructive exploitation of forest resources. This rapidly growing phenomenon is one of the main causes of deforestation and forest degradation with 100,000 ha of loss per year. This loss of natural forests depletes the island's unique natural capital and makes the country more vulnerable to climate change.</p>	
<p><input checked="" 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): Coordination of the interventions of Technical and Financial Partners (PTF) in the field of Energy and consolidation of international cooperation to promote investment in renewable energy infrastructures 100% of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified are applied operationally.</p> <p>Time frame: 2022-2030</p> <p>Context for the ambition(s):</p> <p>Several international partners support Madagascar in the development of the energy sector through their respective programs. Indeed, the Malagasy energy sector has a coordination platform for Technical and Financial Partners (PTF) in order to better coordinate and harmonize activities for a better impact at the level of the population. This platform can be used to encourage local and foreign private investment in the sector, particularly renewable energies. It can also facilitate the promotion of research results and innovative projects for sustainable development (economic, social, environmental, cultural, technological).</p> <p>Furthermore, the country should revitalize and strengthen partnerships and cooperation with international and regional organizations (ISA, IRENA, COMESA, SADC, OPEC Fund , SEforALL, ADB, EU, World Bank, GIZ etc.).</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</p>	<p>Target(s): see 7.1 and 7.2</p> <p>Time frame:</p> <p>Context for the ambition(s):</p>	

accordance with their respective programs of support.

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

Target(s): The enhancement of natural capital and the preservation of the environment through support for the sustainable management of the wood-energy sector and promoting gender approach for the implementation of the Energy Program.

Increase participation of women and integrate gender issues; 20 % women and young entrepreneurs and employees in clean cooking value chains by 2025, 35 % by 2027, 50 % by 2030

Time frame: 2022-2030

Context for the ambition(s):

Wood is the main source of cooking energy in Madagascar. At the country level, the volume of fuelwood consumed in Madagascar is twice as high as the sustainable production potential of Malagasy forests. Improving the efficiency of cookers used by households, promoting alternatives to charcoal and increasing reforestation activities are some of the ways to reduce wood energy consumption.

Such as the Program National Barefoot College (PNBC) which consist of giving training to rural women on manufacturing, assembly, installation and maintenance, repair of solar equipment, such a program can also be put in place on the clean cooking.

Training sessions on the manufacturing of improved cooking stoves have already been carried out since 2021 and have met great success. Other sessions are planned this year and the upcoming year, and women and young entrepreneurs are the main targets (more than 50% participants).

See Clean Cooking 7.1 (ii)

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].

<p><i>Description of action (Ambition 7.1: Provision of sustainable access to modern energy (electricity and lighting) to 70% of households and the equipping of 2 500 000 of households with efficient/clean cooking stoves using appropriate fuels.</i></p> <ul style="list-style-type: none"> - Grid solar park installations, or to a form of modern lighting for the Malagasy population - Provide households with efficient cooking stoves using appropriate fuels - Massively deploy quality solar kits in areas where grid extension is not yet feasible or profitable. 	<p><i>Start and end date</i></p> <p>2022- 2030 2022- 2030 2022-2030</p>
<p><i>Description of action (Ambition 7.2: Increase the share of clean and renewable energies in energy production)</i></p> <ul style="list-style-type: none"> - Ensure the hybridization of power generation plants through the use of solar energy, wind power and hydroelectricity - Promoting the use of renewable energies in new electricity production in Madagascar 	<p><i>Start and end date</i></p> <p>2022- 2030 2022- 2030</p>
<p><i>Description of action (Ambition 7.3: Improvement of electrical and thermal energy efficiency by households, businesses and industries)</i></p> <ul style="list-style-type: none"> - Improve the electrical and thermal energy efficiency of Malagasy businesses and industries. - Sensitize households to the use of energy-saving stoves. - Ensure the use of legal and sustainable forest resources for household wood needs. - Adopt energy efficiency measures in the electricity consumption of public administrations. - Adopt energy efficiency laws and measures on electricity consumption through the use of low consumption light bulbs and electrical equipment. - Provide the country with an energy efficiency policy that will cover all categories of consumption. 	<p><i>Start and end date</i></p> <p>2022- 2030 2022- 2030 2022- 2030 2022- 2030 2022- 2030</p>
<p><i>Description of action (Ambition 7.a):</i> Coordination of the interventions of Technical and Financial Partners in the field of Energy and consolidate international cooperation to promote investment in renewable energy infrastructure.</p>	<p><i>Start and end date</i></p> <p>2022-2030</p>

- Ensure the implementation and monitoring of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified;	2022-2030
- Encourage local and foreign private investment in the renewable energy sector.	2022-2030
- Promote research results in the field of renewable and innovative energies for sustainable development (economic, social, environmental, cultural, technological);	2022-2030
- Support scientific research on innovative projects in the field of promoting renewable energy.	2022-2030
- Actively participate in COPs for energy aspects.	2022-2030
- Establish the FNED as a financing mechanism capable of receiving and administering funds in a sufficient and regular manner, deployed for the benefit of electrification in an efficient manner.	2022-2030

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>Date</i>
<i>Outcomes for Ambition 7.1</i>	
- 70% of the population has access to electricity or some form of modern lighting	2030
- Electricity production increased to 7,900 GWh	2030
- 50% of households using Equipment in improved cooking stoves and 20% of household using fuels of biological origin	2030
- 2 500 000 of households are equipped with efficient cooking stoves using appropriate fuels	2030
- 1,000,000 quality solar kits deployed in off-grid areas of Madagascar	2023
- 4,000,000 quality solar kits deployed in off-grid areas of Madagascar	2030
<i>Outcomes for Ambition 7.2</i>	
- The share of clean energies in electricity production reaches 60% for hydroelectricity, 5% for wind power, and 25% for solar power. In total, the share of renewable energies in electricity production will increase to 90% in 2030	2030
<i>Outcomes for Ambition 7.3</i>	
- 60% of businesses and industries adopt measures to improve electrical and thermal energy efficiency	2025
- 50% of households adopt the use of energy-efficient stoves	2030
- 50% of wood needs are covered by legal and sustainable forest resources	
- 70% of public administrations adopt energy efficiency measures in their electricity consumption	2023
- 60% of households adopt energy efficiency measures in electricity consumption (light bulbs and low consumption electrical equipment)	2030
- Energy Efficiency Policy and Laws that will cover all consumption categories will be put in place and adopted at national level	2023
<i>Outcomes for Ambition 7.a</i>	
- 100% of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified are applied operationally	2025
- at least 50% of the partnerships initiated with local and foreign private investments in the renewable energy sector have resulted in concrete and operational projects	2027
- 20% of the results of local research in the field of renewable energies have been the subject of popularization action with various stakeholders for sustainable development (economic, social, environmental, cultural, technological)	2023
- 01 financing mechanism put in place (the FNED)	2023
- Sector reforms including an appropriate institutional and regulatory framework (particularly in terms of regulation)	2030
- Resource saving through voluntary optimization by households, businesses, industries and administrations of their energy consumption	

SECTION 4: REQUIRED RESOURCES AND SUPPORT

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

Description of action	USD budget
Provide households with efficient cooking stoves using appropriate fuels	\$367 million
Massively deploy quality solar kits in areas where grid extension is not profitable	\$148 Million
Ensure the hybridization of power generation plants through the use of solar energy, wind power and hydroelectricity	\$100 million
Promote the use of renewable energies in electricity production in Madagascar (solar, wind, bio, and hydroelectricity)	\$2 billion
Improve the electrical and thermal energy efficiency of Malagasy businesses and industries (consumption diagnostic and optimization study and awareness of consumption reduction)	\$300 million
Ensure the use of legal and sustainable forest resources for household wood needs (awareness raising, surveys, meetings)	\$46 million
Adopt energy efficiency measures in household electricity consumption (light bulbs and low-consumption electrical equipment) (diagnostic study and consumption optimization and awareness of consumption reduction)	\$200 million
Provide the country with an energy efficiency policy that will cover all categories of consumption	\$1 million
Ensure the implementation and monitoring of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified;	\$10 million
Encourage local and foreign private investment in the renewable energy sector (Meeting with TFPs)	\$1 million
Promoting research results in the field of renewable energies for sustainable development (economic, social, environmental, cultural, technological) (School and Institutes)	\$2 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"/> Funding	<i>Description</i> - Implementation and application of standard standards in terms of energy performance
<input checked="" type="checkbox"/> In-Kind contribution	<i>Description</i> - Provision of computer equipment to strengthen data collection throughout the territory
<input checked="" type="checkbox"/> Technical Support	<i>Description</i> - Country power supply master plan and an Integrated Energy Access Plan (incl. electrification on the grid and off-grid, as well as clean cooking) - Technical assistance for the development of the regional wood-energy strategy (SRABE) et technical assistance for the development of the national wood-energy strategy (SNABE) - Technical support for the implementation of an energy efficiency policy - Capacity building of ministry technicians
<input checked="" type="checkbox"/> Other/Please specify	<i>Description</i> Training - Exchanges Capacity building – Skills transfer Acquisition of equipment and materials (monitoring and technical control, rolling stock, computer equipment, software, etc.)

SECTION 5: IMPACT

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

Madagascar
 Estimated population in 2030: 35.6 million inhabitants
 Number of populations with access to improved health in 2030: 25 million (70%)
 Number of populations with access to economic and digital development in 2030: 20 million (60%)

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]

Description of action	impact advancing the SDGs by 2030
Provide households with efficient cooking stoves using appropriate fuels	SDG3: good health and well-being SDG5: Achieve gender equality and empower all women and girls SDG7: clean energy and affordability SDG 8: decent work and economic growth SDG13: fight against climate change SDG 15: preserve and restore terrestrial ecosystems
Massively deploy quality solar kits in areas where grid extension is not profitable	SDG7: clean energy and affordability
Ensure the hybridization of power generation plants through the use of solar energy, wind power and hydroelectricity	SDG13: fight against climate change SDG7: clean energy and affordability
Promoting the use of renewable energies in electricity production in Madagascar	SDG7: clean energy and affordability SDG13: fight against climate change
Improving the electrical and thermal energy efficiency of Malagasy businesses and industries	SDG7: clean energy and affordability SDG13: fight against climate change
Promote the use of energy-efficient stoves by households	SDG1 - Fight against poverty SDG3: good health and well-being SDG7: clean energy and affordability SDG13: fight against climate change
Ensure the use of legal and sustainable forest resources for household wood needs	SDG13: fight against climate change
Adopt energy efficiency measures in the electricity consumption of public administrations	SDG13: fight against climate change
Adopt energy efficiency measures in household electricity consumption (light bulbs and low consumption electrical equipment)	SDG13: fight against climate change
Provide the country with an energy efficiency policy that will cover all categories of consumption	SDG13: fight against climate change SDG7: clean energy and affordability

Ensure the implementation and monitoring of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified;	SDG7: clean energy and affordability
Encourage local and foreign private investment in the renewable energy sector	SDG7: clean energy and affordability
Promoting research results in the field of renewable energies for sustainable development (economic, social, environmental, cultural, technological)	SDG7: clean energy and affordability SDG13: fight against climate change

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]

Description of action	alignment with the Paris Agreement and national NDCs (if applicable)
Increase the rate of access to electricity or a form of modern lighting for the Malagasy population	- Madagascar Energy Policy Letter 2015-2030 - Vision Initiative for the emergence of Madagascar
Provide households with efficient cooking stoves using appropriate fuels	- Madagascar Energy Policy Letter 2015-2030 - ET-2019-TP Madagascar by Sustainable Energy for All
Massively deploy quality solar kits in areas where grid extension is not profitable	MEH Action Plan PDMC
Ensure the hybridization of power generation plants through the use of solar energy, wind power and hydroelectricity	- Madagascar Energy Policy Letter 2015-2030 - MEH action plan - JIRAMA-ADER action plan
Promoting the use of renewable energies in electricity production in Madagascar	- Madagascar Energy Policy Letter 2015-2030
Improving the electrical and thermal energy efficiency of Malagasy businesses and industries	- Madagascar Energy Policy Letter 2015-2030 - Action plan for the fight against climate change in Madagascar
Promote the use of energy-efficient stoves by households	- Madagascar Energy Policy Letter 2015-2030
Ensure the use of legal and sustainable forest resources for household wood needs	- Madagascar Energy Policy Letter 2015-2030
Adopt energy efficiency measures in the electricity consumption of public administrations	- Madagascar Energy Policy Letter 2015-2030
Adopt energy efficiency measures in household electricity consumption (light bulbs and low consumption electrical equipment)	- Madagascar Energy Policy Letter 2015-2030
Provide the country with an energy efficiency policy that will cover all categories of consumption	- Madagascar Energy Policy Letter 2015-2030
Ensure the implementation and monitoring of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified;	- Madagascar Energy Policy Letter 2015-2030
Encourage local and foreign private investment in the renewable energy sector	- Madagascar Energy Policy Letter 2015-2030

Promoting research results in the field of renewable energies for sustainable development (economic, social, environmental, cultural, technological)		
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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.

Outcomes	MONITORING AND REPORTING
70% of the population has access to electricity or some form of modern lighting and power generation increased to 7,900 GWh	- Energy Information System of the Ministry of Energy and Hydrocarbons - General population and housing census (RGPH) - Periodic household survey
50% of household using equipment in improved cooking stoves and 20 % of households using fuels of biological origin in 2030	- Energy Information System of the Ministry of Energy and Hydrocarbons - General population and housing census (RGPH) - SNABE - Periodic household survey
1,000,000 quality solar kits deployed in off-grid areas of Madagascar in 2023 4,000,000 quality solar kits deployed in off-grid areas of Madagascar in 2030	- Energy Information System of the Ministry of Energy and Hydrocarbons - general population and housing census (RGPH) - Periodic household survey
The share of clean energies in electricity production reaches 60% for hydroelectricity, 5% for wind power, and 25% for solar	MEH Energy Information System, JIRAMA Monitoring and Evaluation System
The installed capacity in Madagascar is tripled	MEH Energy Information System, JIRAMA Monitoring and Evaluation System
The share of renewable energies in electricity production has increased to 90%	MEH Energy Information System, JIRAMA Monitoring and Evaluation System
60% of businesses and industries adopt measures to improve electrical and thermal energy efficiency	- JIRAMA: Evolution of electricity consumption by household category - Periodic household survey INSTAT
50% of wood needs are covered by legal and sustainable forest resources	Report from the Ministry of the Environment
70% of public administrations adopt energy efficiency measures in their electricity consumption	JIRAMA monitoring and evaluation system
60% of households adopt energy efficiency measures in electricity consumption (light bulbs and low consumption electrical equipment)	JIRAMA: Evolution of electricity consumption by household category
An energy efficiency policy that will cover all categories of consumption is put in place and adopted at national level	MEH report
100% of international conventions and agreements in the field of Energy to which the Republic of Madagascar has ratified are applied operationally	Database for monitoring international conventions and agreements within the Ministry
50% of the partnerships initiated with local and foreign private investments in the renewable energy sector have resulted in concrete and operational projects	Database of TFPs within the Ministry
50% of the results of local research in the field of renewable energies have been the subject of popularization action with various stakeholders for sustainable development (economic, social, environmental, cultural, technological)	Research database to be set up within the Ministry

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 challenged 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 (eg 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 proposed measures (eg 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

ODD7 Energy Pact of the Ministry of Energy and Hydrocarbons (MEH) - Madagascar

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

Andry Heriniaina RAMAROSON – Minister of Energy and Hydrocarbons in Madagascar

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

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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.

www.meh.mg

www.energie.mg

www.ore.mg

www.ader.mg

www.omh.mg

www.jirama.mg

www.wordbank.org

<https://unfccc.int/sites/default/files/resource/PNA-Madagascar.pdf>