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ANNEX I – Description of the Action

Addressing the impacts of the energy crisis in the Republic of Moldova: Initiating solutions toward energy security and energy poverty

2022

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LIST OF ABBREVIATIONS

ACPMs	Agency for Consumer Protection and Market Surveillance
AEE	Energy Efficiency Agency
ANRE	National Energy Regulatory Agency
APRA	Governmental support for cold period of year
CEN	Continental European Network
CFCEECp/UTM	Centre for Continuing Education Energy Efficiency of Public Buildings/ Technical University of Moldova
CIP	Climate Investment Platform
DG ENER	Directorate-General for Energy
DG NEAR	Directorate-General of the European Commission
DHW	domestic hot water
DoA	Delegation of Authority
EaP	Eastern Partnership
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EnC	Energy Community
ENTSO-E	European Network of Transmission System Operators for Electricity
EP	electricity program'
EU	European Union
EU DEL	Delegation of the European Union to the Republic of Moldova
EUR	Euro
ESP	Eastern Europe Energy Efficiency and Environment Partnership Fund
FPI	Foreign Policy Instrument
FR	France
GDP	gross domestic product
GHG	Greenhouse Gases
GIZ	Agency for International Cooperation of Germany
GP	Gas Program
HIK	Heidelberg Institute for International Conflict Research
HHs	Households
HRBA	Human rights based approach
ICT	Information and communications technology
IFIs	international financial institutions
IEA	International Energy Agency
IMF	International Monetary Fund
IRENA	International Renewable Energy Agency
KPIs	Key Performance Indicators
LPAs	Local Public Authorities
MGRES	Moldavskaya GRES (Power Plant in Transnistria)
MDA	Country abbreviation for Moldova
MFA	Macro Financial Assistance
MMZ	Moldovan Metallurgical Plant
MoIDR	Ministry of Infrastructure and Regional Development
MoLSP	Ministry of Labour and Social Protection
MSPL	"Modernization of Local Public Services in the Republic of Moldova" project

NDC	Nationally Determined Contribution
NFRLD	National Fund for Regional and Local Development
NIF	Neighbourhood Investment Facility
SDGs	Sustainable Development Goals
SEA	Strategic Environment Assessment
PPP	purchasing power parity
PRINCE2	Projects in Controlled Environments 2nd version
RE	Renewable Energy
RES	Renewable Energy Sources
RRA	Renewable Readiness Assessment
TA	Technical Assistance
TN	Transnistria
UKR	Country abbreviation for Ukraine
UN	United Nations
UNDP	United Nations Development Programme
UNDP CO	UNDP Country Office
UNECE	United Nations Economic Commission for Europe
USAID	United States Agency for International Development
USD	US dollars
U.S. LNG	United States liquefied natural gas
RO	Romanian
RUB	Russian currency
SEforALL	Sustainable Energy for All
SE	Sweden
WB	World Bank
WEEE	Waste Electrical and Electronic Equipment

1. EXECUTIVE SUMMARY

Moldova's position in the HIIK Barometer	<p>Moldova is mentioned in the HIIK Barometer twice, once for internal politics and once for the breakaway territory Transnistria.</p> <p>The country and its economy is extremely vulnerable to external and geopolitical shocks. The society is still polarized and divided along specific areas including the development vector (east vs. West) and such polarization is resulting in increased societal tensions and reduced cohesion. The recent socio-economic crisis induced by the COVID-19, then energy and the war situation in Ukraine is further exacerbating the social inclusion and cohesion, creating additional risks and vulnerabilities. The considerable exposure to political instability has not left Moldova even after the presidential elections in November 2020 and parliamentary elections in July 2021 where a pro-European party managed to gain a parliamentary majority on its own. The polarized and divided society, as well as the difficult socio-economic situation is a concern, while the pro-European</p>
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	<p>vector of development is not fully shared by the entire population. Nevertheless, the current alignment between the Presidency, Parliament and the Government is a major opportunity to consolidate the society and solidify the pro-European vector while focusing more attention on solving the domestic problems and ensuring a more sustainable and inclusive human development.</p> <p>The status of Transnistria, a breakaway region of Moldova after a brief military conflict in 1992, is still unresolved. The 5+2 negotiations are blocked, with tensions being fuelled by the outcomes of the snap Parliamentary elections on the right bank and the elections for the supreme position in the Transnistrian region, organized in December 2021. The current socio-economic situation in Transnistrian region is becoming dramatic as the trade links with Ukraine are broken. Moreover, the depreciation of the Russian currency (RUB) has a very strong impact; the income of pensioners receiving Russian pensions has basically halved. Remittances (about 50% come from Russian Federation) are also strongly affected and there are several problems related to the heavy industry: MGRES and right-bank MDA have yet to reach an agreement regarding the extension of the electricity contract for a new 1-year period at same or other (higher) price, while MMZ suffers from the inability to import metal scraps from the EU due to problems with the ecological certification. On top of, support of refugees from UKR (approx. 4,000-6,000 people) will hardly be feasible without international support in the long run for the already strained TN budget. These socio-economic factors will further impact the negotiations and the process of the settlement of the conflict in the future.</p>
<p>Fragile State Index</p>	<p>Moldova is a lower-middle income country, and despite the latest economic progress, it is still the poorest country in Europe. The economy of the country has expanded by an average of 5% annually, however it is based on consumption supported by remittance. Real gross domestic product (GDP), measured in US dollars (USD) on the basis of purchasing power parity (PPP) at 2011 prices, increased by 100% from 2002 to 2018 according to the World Bank. Poverty is endemic to Moldova’s society and economy. In 2020, the absolute poverty rate was 26.8% and extreme poverty was 10.8%.</p> <p>Being one of the poorest countries in Europe, Moldova is extremely vulnerable to internal and external shocks. Due to severe structural problems and the current unsustainable economic growth model, the energy price and food price shocks will have a significant negative impact. Broken logistical and supply chains, dependence on imports of energy and exports in food produce and other commodities, potential drop in remittances from the Russian Federation and other related aspects will bring an important contraction in GDP (or at least similar to 2020 contraction) and will significantly impact the incomes of the population, with particularly hard hit on income poor.</p>

	<p>According to a recent UNDP report, in the event of a protracted war in Ukraine more than 30% of the population could be living below the poverty line, and 54% could be at high risk of falling into poverty within the next twelve months.¹</p>
<p>Moldova and gas crisis in FAC conclusions, HRVP statements or Council press releases</p>	<p>The acute gas supply crisis in Moldova has been high on the EU agenda. It has also been subject of discussions within the Moldova-EU Association Council meeting on October 28, 2021. Following President von der Leyen and President Sandu discussions the Commission made available a EUR 60 million budget support programme at record speed which aims to assist the most vulnerable groups to cope with the increasing energy prices and to support Moldova to strengthen preparedness for potential future crises. Prior to this action, the commission deployed experts to provide advice and expertise on the ground. Strengthened cooperation with key stakeholders and, in particular, the Energy Community Secretariat was swiftly launched. The Commission services also prepared a new Macro Financial Assistance (MFA) programme of EUR 150 million, approved on 4 January 2022. The proposed EU MFA, which requires adoption by the European Parliament and the Council before it can enter into force and disbursements can be made, would accompany the country's new IMF programme. Specifically, the MFA would help Moldova to cover part of its external financing needs over the coming two years. The operation would thus contribute to reducing the economy's short-term balance-of-payments and fiscal vulnerabilities. The MFA also includes conditionalities requiring reforms in energy sector.</p> <p>Furthermore, and as part of President von der Leyen commitment to provide support to Moldova to address the crisis, a high-level energy dialogue was launched and back-to-back discussion between EU Commissioner Mr. Simson and Prime Minister, Ms. Gavrilita took place focusing on challenging situation for Moldova and EU's immediate and medium-term support in this regard. During the meeting, the EU reiterated its commitment to provide further technical support to Moldova to tackle the crisis and underlined the importance of unbundling of gas and electricity transmission and distribution to strengthen Moldova's resilience.</p> <p>The EU and Moldova stressed the importance of resilience against any potential efforts by third parties to use energy as a geopolitical lever. The Association Council recalled the importance of continued energy market reform to strengthen competition and transparency in this sector. The EU has urged Moldova to ensure that the energy sector reform demonstrates full respect of the Energy Community acquis and is in line with the EU Third Energy Package. The EU side confirmed its support to the objective of Moldova to synchronize its electricity network with the Continental European Network (CEN), an important step towards the integration into the EU energy system and market.</p> <p>The visit of Mr. Borell and Mr. Varhelyi in March 2022 conveyed the confirmation of the support of the EU on addressing the socio-economic impacts of the impacts</p>

¹ <https://moldova.un.org/en/175622-undp-scales-support-moldova-early-projections-suggest-thousands-could-be-pushed-poverty>

	<p>of the energy crisis, but also collaboration in strengthening the energy security of Moldova.</p> <p>Against this background, and combined with the country's aggravated context by the COVID-19 pandemic and on-going macroeconomic social distress, the energy shocks also pose major risks to the Government's reform program, which seeks to strengthen Moldova's alignment with European and global good governance practices and is central to Moldova's hopes for achieving the SDGs.</p>
New or emerging crisis situation	<p>The gas crisis in Moldova entered a new dimension in the second half of 2021 when the price for natural gas paid to Gazprom increased from 265 USD/1000 cm to 687 US/1000 cm in January 2022. At this point, this sharp increase in gas price represented an emerging crisis with destabilizing potential. A state of emergency was declared twice.</p> <p>The significant price increase has a direct impact on the final consumers. Despite the direct compensations in the bills offered by the government, the tariffs affected the low and medium income families, which had to pay more for heating and could afford less for other primary need goods and services.</p> <p>Another specific of the crises is that all gas is imported from one source, which renders the country with no local gas production more vulnerable. The existing geopolitical context accelerates the country's efforts in identifying new sources of gas relying on EU market opportunities and gas infrastructure. The latest evolutions on the gas market confirmed that the U.S. LNG is a priority option for the near future.</p>
Objectives	<p><u>The overall objective:</u></p> <p>To assist the Government of Moldova to tackle the current energy crisis and energy poverty in addressing prioritized systemic elements in the energy sector to cope with potential future energy crisis.</p> <p><u>Specific objective:</u></p> <ol style="list-style-type: none"> 1. Improving policies and regulatory frameworks to enable energy security, as well as energy efficient and clean energy transition of Moldova in an inclusive way 2. Enhancing institutional capacities and coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis 3. Awareness raising, information and communication to foster public support for energy transition, increased energy efficiency and to address disinformation in a gender sensitive manner 4. Demonstration/pilots of energy efficiency and renewable measures to increase energy affordability and development of sustainable financing mechanisms with primary focus on vulnerable households and public sector
Key Outputs/Results	<p>The Action aims to achieve the following results:</p> <p>1.1. National policy framework and long-term planning in the energy sector is improved and aligned to climate commitments</p>

	<p>1.2. National regulatory framework (both primary and secondary) is improved in line with Moldovan energy commitments. It ensures that national authorities are better prepared and can respond to emergency situations in the energy sector and to the needs of the most vulnerable energy users</p> <p>2.1. Key energy players have increased expertise, technological, institutional and enforcement capacities to prevent major risks in current and potential future energy crises</p> <p>2.2. National capacities to organize transparent and non-discriminatory procurement procedures in the energy field are strengthened</p> <p>2.3. Government capacities to monitor and provide targeted response to energy poverty is increased through institutionalization of new mechanism</p> <p>3.1. Facilitate citizen's engagement in formulation of energy policies and contribute to increased transparency of decision making process</p> <p>3.2. Advocate for renewables and practical solutions to alleviate energy poverty</p> <p>3.3. National nudging program for household successfully implemented to improve and reduce energy consumption</p> <p>3.4. Project visibility and results promotion</p> <p>4.1 National Programs to adopt energy saving practices and technologies, including in vulnerable HHs are launched and piloted</p> <p>4.2 Enhanced adoption of energy efficiency measures in apartment buildings</p> <p>4.3 Increased domestic power generation from renewable energy sources for needs of public buildings</p>
<p>Main activities</p>	<p><u>Component 1</u>: Improving policies and regulatory frameworks to enable energy security, as well as energy efficient and clean energy transition of Moldova in an inclusive way</p> <p>Under this component, flexible on-demand expert support will be provided to:</p> <p>-development of the National Energy and Climate Action Plan and new Energy Strategy of the Republic of Moldova; assistance in finalization and implementation of the draft Law on creating and maintaining a minimum level of oil stocks; amendment of the legislation regulating the emergency situations on the natural gas and electricity market, including in line with the EU regulations from the EU Clean Energy Package; provide expertise on implementation of fulfilling the gas stockholding obligations; transposition and implementation of the Energy Performance in Buildings Directive and in implementation of the Law on promotion of use of renewables aiming to attract investments in the renewable energy field, transposition of energy community acquis into primary and secondary national legislation, as per Ministry of Infrastructure and Regional Development request."</p> <p><u>Component 2</u>: Enhancing institutional capacities and coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis</p> <p>Under this component the following activities are envisaged:</p> <p>-strengthening of the MoIDR's Energy Department, Energy Efficiency Agency and Regional and Rural Development Fund, through functional reviews, update of institutions' regulations, business processes and KPIs for the staff; support to setup of the regular co-ordination mechanism among the key stakeholders in the energy; development of the capacity building programs on specific needs/topics of MoIDR, AEE, ANRE, ACPMS, LPAs, CFCEECP/UTM, energy producers and suppliers, as well as for various target groups (energy auditors, energy manager,</p>

	<p>inspectors, etc.); forecasting and monitoring of wind and solar production tools; provision of technical equipment for education and training needs, trainings, study visits, etc.; technical support to LPAs, MoIDR, and companies to ensure transparent procurement procedures for energy efficiency measures and big renewable energy capacities; develop a mechanism to monitoring energy poverty.</p> <p><u>Component 3:</u> Awareness raising, information and communication to foster public support for energy transition, increased energy efficiency and to address disinformation in a gender sensitive manner</p> <p>Under this component, the following activities are envisaged:</p> <p>-mechanisms for citizens engagement in decision making in the energy sector – surveys, sense-making, focus groups; awareness raising and information tools and campaigns on thematic energy-related topics; revised policies and legislation to reflect instruments for consumers information, empowerment and behavioural change; establishment of the one stop-shop energy information hub/center; deployment of the national nudging program for household on electricity and gas to improve and reduce energy consumption; communication strategy and detailed communication plans to ensure high visibility of the EU's contribution and project results.</p> <p><u>Component 4:</u> Demonstration/pilots of energy efficiency and renewable measures to increase energy affordability and development of sustainable financing mechanisms with primary focus on vulnerable households and public sector</p> <p>Under this component, the following activities will be implemented:</p> <p>-carry out a nation-wide vouchers programme for household appliances dedicated to vulnerable energy consumers; design and pilot the Green Home Grant Programme which is intended to offer solutions for increasing the energy efficiency and use of renewables within households and which subsequently will be taken-over by the National Fund for Regional and Local Development; implement more efficient heat distribution in the multifamily residential buildings connected to the centralized heating system with the aim to make more efficient the heat distribution; domestic power generation from renewable energy sources for the needs of the public buildings (hospitals).</p>
<p>Description of the multilateral landscape in which the action will take place, i.e. who are the main multilateral actors and their involvement in the country/context?</p>	<p>The Action is designed to creating close interactions and linkages with a wide range of projects in the process of implementation by various development partners in the energy area. Currently support in this area is provided by World Bank, EBRD, EIB, GIZ, EU (NIF, E5P), USAID, Energy Treaty Secretariat, various agencies and operating structures of the United Nations network, alongside bilateral assistance from EU Member states such as Romania, Sweden, Czechia, Lithuania and USA.</p> <p>According to the data presented by MiDR on 22 March 2022, there total value of the ongoing projects in the energy sector is about 540 M EUR. Currently there are 6 major ongoing energy related investment projects in Moldova, that are financed by several donors, namely EBRD, EIB, EU NIF, WB, E5P.</p>

	<p>Along with these ongoing investments, MoIRD identified several other investment needs, that cover different energy related sectors. The biggest investment is required in electricity sector, where 12 potential investment projects were identified with a total amount of 802 mln EUR. RES and EE are also sectors with big potential for investments, and namely 4 projects with total amount of 860.13 mln EUR and respectively 6 projects with a total estimated amount 1215 mln EUR are reviewed in these sectors. Natural gas - 2 potential projects that constitute 91.333 mln EUR investment and Petrol sector - 1 project of 22,4 mln EUR budget.</p> <p>To facilitate the collaborative approach, the Action will strengthen the work of the Energy Donor Coordination Council platform established under the leadership of the Ministry of Infrastructure and Regional Development. The Council will enable the exchange of information, ensure complementarity and avoid overlaps in the current and future initiatives in the respective area.</p> <p>Synergies and consistency will be ensured at the implementation stage between the Action with the EU and other donors. More details might be found on pages 13-17.</p>
<p>Explicit alignment with and/or explicit reference to multilateral frameworks (i.e. the policies, strategies and resolutions etc. of multilateral institutions).</p>	<p>Moldova developed and approved a series of policy documents that describe strategic priorities and targets to be achieved in the field of energy, including: Energy Strategy of the Republic of Moldova up to 2030 (approved by Government Decision no. 102/2013), National Renewable Energy Action Plan for 2013 - 2020 (approved by Government Decision no. 1073/2013), National Energy Efficiency Action Plan for 2019 – 2021 (approved by Government Decision no. 698/2019).</p> <p>Although designed to describe strategic priorities in the field of energy by 2030, the Energy Strategy needs to be updated to take into consideration the latest developments and new challenges both at national and regional level. At the same time, the National Renewable Energy Action Plan and the National Energy Efficiency Action Plan expired and in the context of transposition and implementation of the EU Clean Energy Package, these Action Plans shall be replaced by a National Energy and Climate Plan.</p>
<p>Information sharing and coordination with (other) multilateral institutions?</p>	<p>The Action has been designed in a collaborative manner to contribute to the country's overarching national objective of enhanced energy security where a number of important multilateral institutions are present. Among these are the IFIs such as the EBRD and EIB which provide investment and technical assistance support for revision of the relevant legal frameworks, WB assisting with optimisation of the heating modality in the residential buildings, and EU initiatives addressing the current gas crisis. Information sharing and coordination will be also ensured with the ongoing UNDP programmes in the areas of climate change mitigation, adaptation and digitalisation to build upon the existing analysis and partnerships.</p> <p>Additional details on the areas of coordination and information sharing with the relevant multilateral institutions are listed in <i>Sections 2.2. EU Engagement and assistance</i> and <i>Section 2.3. International assistance and Donor coordination</i>.</p>

Cooperation/synergies with other multilateral institutions.	<p>Information sharing and coordination with multilateral institutions under this Action will be ensured through the existing national and international platforms such as the: Donors Energy Coordination Council, Energy Community Treaty Secretariat, and IRENA. There are a number of UNDP platforms that will be explored further to ensure their best use for coordination between the relevant international stakeholders such as the: Energy Hub, Climate Investment Platform (CIP) and UNDP's Digital Transformation Initiative.</p> <p>More information on the platform, their mandates and ways of engagement are present under <i>Section: 3.1. Methodological approaches</i>.</p>
Partner(s)	Implementing partner: United Nations Development Programme in Moldova
Target group(s)	<ul style="list-style-type: none"> • Central Authorities (Ministry of Infrastructure and Regional Development, Ministry of Labour and Social Protection, Agency for Energy Efficiency, National Fund for Rural and Regional Development) • Local Public Authorities • Renewable energy producers • Energy suppliers • Centre for Continuing Education Energy Efficiency of Public Buildings/Technical University of Moldova • National Agency for Energy Regulation • Consumer Protection and Market Surveillance Agency • Moldova ICT Association, Moldova IT Park and ICT companies • Energy poor/vulnerable consumers • A more detailed description on the roles and responsibilities of the target groups can be found on pages 21-25. <p>say where more detail on this can be found in the project proposal (chapter and page)</p>
Final beneficiaries	<ul style="list-style-type: none"> • Energy poor/vulnerable consumers • Central and local authorities • Renewable energy producers
Conflict sensitivity / do no harm approach	<p>The Action has been designed in line with the conflict sensitivity and do not harm approaches. More specifically it is building upon a comprehensive context analysis and understanding of the drivers of the potential energy-related conflicts in the country and in the region. While the Action is targeting the most affected groups by the energy crisis, it will enable engagement of a large array of stakeholders to ensure participation and prevent conflicts.</p> <p>Further, during the design of the Action, a special emphasis has been put on ensuring that the provided emergency support transition into a medium to longer-term programming in the energy sector with the relevant policies, legal frameworks, capacities and financing in place.</p>
Gender, age and diversity.	<p>The entire Action is thought through the gender lenses and perspectives. Each component of the Action is to be monitored through a set of gender-specific indicators that allow to measure the progress and contribution to achieving gender equality. The multi-stakeholder analysis provided in Section 2.4. and the gender analysis mainstreamed throughout the Action provide a solid basis for the design and planning of interventions in an equitable manner where no one is left behind.</p>

	<p>The 200,000 households targeted by the Action and which represent the energy vulnerable group according to the Ajutor Social (national social support programme) and APRA (Governmental support for cold period of year) provisions will be the focus of the Action. According to the analysis, around 73% of the requests for Ajutor Social and APRA come from women where 62 % represent 60+ age group. Around 32% of this segment are people with disabilities.</p>
Gender mainstreaming	<p>The Action is well aligned with the gender equality principle in response to the worldwide recognition that the energy poverty has a strong gender dimension. Lack of access to energy is an obstacle to women's and girls' well-being, as it strongly affects their living conditions and undermines their educational and economic opportunities. Gender energy inequality may be further accentuated by national energy policies and labour market patterns. These and other gender-related issues have been taken into consideration during the design of the Action to ensure that the initiative is gender-sensitive.</p> <p>The Action also envisages participatory consultations during the development of policies and legal frameworks and capacity building actions to ensure women's participation in decision making. Furthermore, the vouchers programme for household appliances to be launched by the Action will target women-headed households in order to ensure a proper gender balance among the beneficiaries.</p>
Climate responsiveness	<p>The Action will contribute to an enhanced environmental sustainability through applying/implementing the environmental governance instruments that are in place in Moldova, namely the Strategic Environment Assessment (SEA) and the Environmental Impact Assessment (EIA). By applying SEA, the project will ensure that the environmental concerns are taken into consideration under the planned policy documents (plans, strategies, and programmes) of Component 1. Additionally, to ensure that the necessary environmental safeguards are in place, IEA procedure will be applied for the demo projects where relevant. The recently adopted Extended Producer Responsibility principle will be enforced while running the Rabla Programme under Component 4.</p> <p>The Action will ensure that the climate change mitigation and adaptation is mainstreamed into the sectoral/energy policy to ensure that these are climate responsive. By applying this approach, the project will impact the implementation of the country's updated NDC and indirectly will contribute to achievement of the energy related GHG emission reduction targets, while adjusting the energy sector development to the current and future effects of climate change.</p> <p>The project will also induce changes in climate&environmental related behaviour and practices among the population and will make a positive contribution to the country's sustainable and resilient development.</p>

Theory of Change:

The following are some of the key underlying causes underpinning the Theory of Change and the direction of this Action.

Theory of Change:

National energy insecurity: Moldova's energy sector could significantly affect national security. It is being used by external actors to obstruct the country's European agenda and sustainable development plans. Russia Gazprom owns most of Moldovagaz, the monopolist for gas procurement and supply in Moldova. This has blocked other competitors' entry to the market and hindered national efforts to diversify gas supply.

Solution: Open the market to European countries and Ukraine, and diversify energy supply sources (in a context where the gas crisis has also become an electricity crisis). Moldova is cooperating with the EU under the Association Agreement, and has made commitments under the Energy Community Treaty to deepen market integration and maximize energy security of supply.

Insufficient government expertise on energy. The MoIDR Energy Department staff are being renewed, after a new Government was established in 2021. New personnel lack the necessary experience and often requires technical advice from energy experts, including UNDP. Low salary competitiveness of civil servants, result in competent officials being drawn away by the high salaries offered by other institutions and organizations, including Gazprom.

Solution: Build institutional capacity, focussing on optimization of business processes, support for drafting legislation under national EU Energy for all Europeans commitments, improving energy supply emergency response, energy procurement, development of a competitive energy market, communication and outreach on energy issues. This will enable diversification of energy sources (including renewables), and advance energy efficiency to decrease energy bills and reduce greenhouse gas emissions. Enhance capacity for energy procurement through secondments to the MIRD, exchange of experience with EU countries, and expert support for strengthening procurement.

Lack of awareness. Despite various measures to increase public awareness, end users know too little about energy efficiency and renewables technologies. The available information is often scattered or insufficient, and awareness-raising campaigns are missing or poorly targeted. The geopolitical situation requires clear and consistent information, above all to tackle disinformation. Awareness of energy poverty issues is almost absent, meaning community authorities are unaware of demand-related opportunities, and energy efficiency institutions lack awareness of their programmes' social impacts. Decision-makers lack overall data on gas, heating, hot water and electricity consumption and the average performance of certain types of buildings (and related greenhouse emissions): this is exacerbated by incomplete metering, so many building owners cannot use consumption-based billing to control expenses and prevent over-billing.

Solution: Build on the momentum generated by the current energy crisis to foster public support for energy transition and energy efficiency measures and reduce space for disinformation

Energy poverty and social exclusion: Energy poverty is not yet defined in Moldovan legislation. With the MLSP, UNDP is conducting research on defining and measuring energy poverty, and developing a compensation mechanism that considers the context, inequalities and poverty, vulnerabilities and budgetary constraints. Around 200,000 Moldovan households currently receive social support and

winter heating support. The increased prices of gas and electricity will push many more households into energy poverty, particularly in urban areas where these are used for heating.

Solution: In the immediate term integrate the most energy-vulnerable groups into the Social Assistance Programme, to enable broader social inclusion and stronger social protection, and mitigate the impacts of shocks on the poor and vulnerable in a cost-effective manner. In future reforms, promote "graduation" of beneficiaries from the scheme.

The overall theory of change of this project is that:

If

- national institutions have skilled staff, policies and legal instruments to diversify the energy market suppliers and request enhanced transparency in procurement processes
- national institutions provide more accurate and comprehensive energy -related information and the citizens are empowered to demand access to energy information
- the benefits of energy efficiency and renewable are demonstrated in households and public buildings and the results are acknowledged and widely disseminated
- the energy providers and private companies become partners in influencing the behavioural change of the energy-end users
- digital technologies and solutions are put in place to stimulate investment, improve consumption and change in behaviours, data driven approaches are in focus
- the preparedness and prevention measures in case of energy crisis are defined and the roles and responsibilities assigned to various actors
- the energy donor support is well coordinated

then

- energy supply will be more secure, the vulnerability and exposure of the citizens /households to energy crisis will reduce, and the economy will become more resilient.

2. DESCRIPTION OF THE ACTION

2.1. Overall Background/situation analysis

Energy crisis: Because Moldova lacks energy resources, it is almost wholly dependent on imports of fossil fuels and electricity. In 2018, only 20% of the country's energy demand was met by domestic sources. Until the end of 2014, natural gas – which serves most of its energy needs – was entirely imported from Russia via Ukraine.² Despite efforts to diversify, Moldova has continued to rely heavily on gas from Russia, supplied through Russian company Gazprom, for its energy needs.

² <https://iea.blob.core.windows.net/assets/a6dd7ac3-8955-41f9-8971-d7c09ccff6d9/MoldovaEnergyProfile.pdf>, p.5

Since October 2021, gas prices have increased significantly in Moldova because of both very tight global energy markets and a recently amended contract with Gazprom Moldova. In winter 2021-2022, Moldova purchased gas at prices about three or four times higher than in previous years: about \$770/1,000 m³ in October, \$450/1,000 m³ in November and December and \$650/1,000 m³ in January 2022. Unforeseen excessive price increases have put significant pressures on public finances and the most vulnerable citizens' ability to afford gas over the winter. Adding to the difficulties Gazprom has recently become more rigid in contractual deadlines for payments of advances.

In response to the energy crisis, the government introduced a state of emergency on 22 October 2021 and 20 January 2022 and prepared an urgent social protection system response to increased energy tariffs, increasing compensation for heating for all the population from 67% (of the tariff increase) in December 2021 to 80% in January 2022.

The limitations in gas deliveries since October 2021 have also affected electricity generation and supply in Moldova. MGRES power plant in Transnistria region has switched to coal generation and reduced output since October 2021. Therefore, electricity imports from Ukraine increased significantly on from 23 October 2021 to a total net import from Ukraine of about 30 GWh in October.

The increased gas tariffs have led national energy providers to request increases in electricity prices. To avoid significant increases in electricity prices, on 25 February 2022, Moldova's Commission for Emergency Situations decided to compel the MGRES power plant to ensure delivery of sufficient electricity to suppliers and system operators for 12 months from 1 April 2022 under the previous financial and contractual conditions. Under the same Decision Moldova's central electricity supplier, was compelled to sell electricity in March 2022 at a lower price (1,23 lei/kWh) than that approved by the National Energy Regulatory Agency, with the difference compensated for by the government.

Moldova's continuity of gas supplies from Gazprom under the five-year contract signed at the end of October 2021 is at risk if the parties do not reach agreement regarding settlement of debts: Gazprom may terminate its contract with Moldova Gaz, leading to another gas supply crisis in Moldova.

To enhance security of gas supply, Moldovan authorities are seeking to diversify gas supplies and create gas stocks for emergency situations or specific cases, through amendments published by the Ministry of Infrastructure and Regional Development in November 2021 to the Law on Natural Gas. Under the amendments Moldova intends to enable acquisition, creation and use of gas stocks, especially if there are natural gas shortages: the Minister of Infrastructure and Regional Development is reportedly discussing with neighbouring countries creating and maintaining gas stocks in underground storage facilities within these countries.

Geopolitical situation: The current geopolitical situation brings additional urgency to energy security. Russia's invasion of Ukraine has triggered economic international market restrictions by the global community against Russia. The conflict has also increased gas prices (to a record US\$3,700/1,000 m³ on 7 March 2022). In addition, the conflict has caused disruption to gas supply and electricity generation, and led to an influx of refugees from Ukraine, as well as labour migrant returnees from Ukraine and Russia, reducing the flow of remittances and increasing the number of people living in energy poverty. All of this reinforces the need to diversify gas and electricity supply from dependence from Russian fossil fuel supplies, strengthen its energy security and enable a transparent, fully open and well-functioning energy market. Given the context, high agility is needed in energy policy to adjust to the fluid, multi-disciplinary, and multi-stakeholder environment.

Energy poverty/social vulnerability: The 2020 Household Survey Data indicates that more than 60% of Moldova's population live in energy poverty, spending more than 10% of their budgets on energy bills. The energy tariff rise will increase total household expenditure on energy. Groups with already-high

poverty rates – families with children, women living alone and the rural population – will be worst hit because of their high vulnerability to electricity tariffs.

In Moldova nearly two thirds of the population lived on less than \$10/day even before the COVID-19, expenditure on food and energy absorbs most of vulnerable households' incomes, and most electricity is generated from gas. Moldova has long winters, and saving energy is difficult, especially for those living in poorly insulated housing. Energy poverty is deepening, and poor households face a tripling or quadrupling in gas and electricity prices during the 2021-2022 heating season and beyond. Tariff increases over the past decade have not significantly reduced energy consumption, but instead increased financial burdens on vulnerable households,³ while adequate social safety net mechanisms are not in place to address the impacts of energy tariff increases. Energy poverty also has gendered effects, as it significantly affects girls' and women's living conditions and time-use, and undermines their educational and economic opportunities. Gender energy inequality could be further accentuated by national energy policies and labour market patterns.⁴

The energy intensity remains a serious problem of Moldova and is more than 3 times higher than the EU average, despite some reductions in recent years. It is thus vital to promote energy efficiency, incentivize households to reduce consumption, and replace inefficient home appliances and light bulbs.

The government's Ajutor Social Programme already has a top-up payment in place to provide support during the winter. The Programme is proxy means-tested and thus effectively targets the poor. Ajutor has recently received additional budget and legislative amendments to boost the immediate response to the energy crisis. Meanwhile, the government has announced a larger European Commission-supported subsidy scheme (€60 million to help Moldova to set up a support scheme for vulnerable citizens ahead of winter 2021-2022). The fuel subsidies were intended to help poorer households and protect the standard of living and health of the entire population. If the government decides to use Ajutor or another mechanism to reduce the impact of the energy cost shock, an effective mechanism should be built to include energy subsidies into means-tested or proxy means-tested comprehensive cash transfers to protect poor and vulnerable households from various types of shocks, including the energy price increase.

Moldova-EU Energy Crisis Agenda: Moldova signed an Association Agreement with the European Union on 27 June 2014 and has aligned its legislation with the EU *acquis Communautaire*. Moldova also plans to fully synchronise its electricity network with the European Network of Transmission System Operators for Electricity (ENTSO-E) to connect to the European electricity market. In recent years, Moldova's energy partnership with the EU has deepened through the Baku Initiative, the Eastern Partnership and the European Neighbourhood Policy.⁵

Moldova has been in discussion with the EU on the gas supply crisis since the October 2021 Moldova-EU Association Council meeting, following which the Commission made available a EUR 60 million budget support programme to assist vulnerable groups to cope with the increasing energy prices and support Moldova to strengthen preparedness for future crises. The Commission also prepared a new

³ Ruggeri Laderchi et al. (2013)

⁴ <https://www.oecd-ilibrary.org/sites/3d32ca39-en/1/3/8/index.html?itemId=/content/publication/3d32ca39-en&csp=c53c4487bc06c0c37d4c3c821248d030&itemIGO=oecd&itemContentType=book>

⁵ <https://iea.blob.core.windows.net/assets/a6dd7ac3-8955-41f9-8971-d7c09ccff6d9/MoldovaEnergyProfile.pdf>, p.5

Macro Financial Assistance (MFA) programme of EUR 150 million, approved in January 2022. The proposed EU MFA, which requires adoption by the European Parliament and the Council before it can enter into force and disbursements can be made, would accompany the country's new IMF programme and help cover Moldova's external financing needs over the coming two years, thus reducing the economy's short-term balance-of-payments and fiscal vulnerabilities. The MFA also includes conditionalities requiring reforms in the energy sector.

Furthermore, a high-level energy dialogue was held between EU Commissioner Simson and Prime Minister Gavrilita on EU immediate and medium-term support in this regard. At the meeting, the EU reiterated its commitment to provide further technical support to Moldova to tackle the crisis and underlined the importance of unbundling gas and electricity transmission and distribution to strengthen Moldova's resilience.

The EU and Moldova stressed the importance of resilience against any potential efforts by third parties to use energy as a geopolitical lever. The Association Council recalled the importance of continued energy market reform to strengthen competition and transparency in this sector. The EU has urged Moldova to ensure that the energy sector reform demonstrates full respect of the Energy Community acquis and is in line with the EU Third Energy Package. The EU side confirmed its support for Moldova's objective to synchronize its electricity network with the Continental European Network (CEN), an important step towards integration into the EU energy system and market. In February 2022 the EU energy ministers decided to connect Ukraine and Moldova to the EU's electricity network to decrease dependence on energy supplies from Russia. This strategic initiative is technically difficult and requires solid efforts and further political and investment support, to be able to effectively function, in particular in the current context.

Against this background, and combined with the country's aggravated context by the COVID-19 pandemic and on-going macroeconomic social distress, the energy shocks also pose major risks to the Government's reform programme, which seeks to strengthen Moldova's alignment with European and global good governance practices and is central to Moldova's hopes for achieving the SDGs.

2.2. EU Engagement and Assistance

The Action aligns with the several EU actions announced in December 2021 as results of the high-level dialogue on energy between the EU and Moldova and is intending to complement a) the actions that are already in the process of implementation, such as ongoing immediate emergency support interventions, b) as well as the planned ones in the energy area.

The Action will capitalize on experiences of the € 60 million grant Financing Agreement signed between EU and Moldova⁶ with the aim to address the current severe gas crisis. This support allowed

⁶ <https://ec.europa.eu/neighbourhood-enlargement/news/eu-helps-republic-moldova-face-gas-crisis-2021-12->

the Government to provide immediate emergency support by subsidizing the gas bills of the entire country's population as an instrument to cope with raising gas prices.

The Action will also capitalize on experiences of the FPI €5 million grant initiative by the Service for Foreign Policy Instruments⁷. The Project "Together we support the vulnerable population affected by the energy crisis" (Energy Crisis Response), is a 16 month initiative implemented by NGO People in Need⁸ which is targeting distribution of cash to vulnerable groups to cover costs for heating during winter season, but also on granting to the social service providers to increase their capacities to provide support to most vulnerable layers of population.

The Action complementarity on social front will consist in better definition of vulnerable groups and better compensation targeting mechanism. Similarly, the implementation of Action's pilots on EE and RES will target the most vulnerable HHs and groups, as per the updated national distribution list.

The EU is also preparing to offer the Republic of Moldova a new macro-financial assistance operation, intended to help alleviate the financing needs of the country, caused by the sharp increase in gas prices, in the short-to-medium term. This new operation is sought to be jointly implemented with a new International Monetary Fund (IMF) programme⁹. The Actions will provide analytical support, but also contribute to improvement of the policy and legal frameworks for a smooth implementation of the new offer.

The Action will ensure synergies and complementarities with a series of projects, funded by European Union for Eastern Partnership (EaP) countries, presented in Chapter 9.

Implementation of the Action will be done in close dialogue with the Government of Moldova and in coordination and/or under the guidance of the European entities active in Moldova, such as EUD DEL and Energy Community Secretariat. The involvement of FPI and DG NEAR is also planned for project implementation monitoring and guiding on the synergy and complementarity with EU funded actions.

Given the large number of activities under EU auspices, and other donors in energy sector, the Action will seek to provide the dedicated support for coordination of the energy donors projects and initiatives, involving relevant stakeholders and leading the dialogue among both sides.

2.3. International assistance and Donor coordination

The Action is designed in close relevance to the strategic country priority on sustainable energy transition, building on lessons learned of completed projects in the energy area, as well as by creating close interactions and linkages with a wide range of projects in the process of implementation by various development partners in the energy area. Currently support in this area is provided by World Bank, EBRD, GIZ, USAID, various agencies and operating structures of the United Nations network, alongside bilateral assistance from EU Member states such as Romania, Sweden, Czechia, Lithuania and USA.

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⁷ <https://moldova.peopleinneed.net/mo/uniunea-europeana-ofera-suport-direct-grupurilor-vulnerabile-din-republica-moldova-afectate-de-criza-energetica-8505qp>

⁸ <https://moldova.peopleinneed.net/en>

⁹ https://ec.europa.eu/commission/presscorner/detail/en/IP_21_7101

To facilitate the collaborative approach, the Action will strengthen the work of the Energy Donor Coordination Council platform established under the leadership of the Ministry of Infrastructure and Regional Development. The Council will enable the exchange of information, ensure complementarity and avoid overlaps in the current and future initiatives in the respective area.

Synergies and consistency will be ensured between the Action with the other initiatives at the implementation stage. These are presented in Chapter 9. The coordination efforts, under the leadership of the Government and EUDEL would enable a better understanding of the needs and collaborative actions required to advance the reforms in the energy sector.

2.4. Target Groups and Final Beneficiaries

Ministry of Infrastructure, Regional Development (MoIRD): with its Energy Department is in charge of developing and implementing strategies and policies related to energy, such as Moldova's Energy Strategy 2030, NECP (<http://www.mei.gov.md>), but also energy related primary and secondary legislation. The MoIRD also plays an important role in ensuring energy security and monitoring energy supply, as well as in managing emergency situations in the natural gas and electricity sectors and in mitigating the consequences. In the field of renewables, MoIRD develops the support scheme, capacity limits and maximum capacity quotas, in connection with the implementation of the established support scheme and the Regulation on organization of tenders for granting of the status of eligible producers. It monitors the supply–demand balance and plans for future demand increases. MoIRD is the authority mandated to ensure compliance of the energy procurement process with the principles of fairness, transparency and non-discrimination. Besides its quality assurance role in the energy procurement process, the hands-on experience and capacities of the respective central public authorities to engage in the above-mentioned energy related processes and to ensure effective oversight functions are lagging behind.

- Therefore, the capacities of the MoIRD would have to be enhanced through seconding of the relevant expertise to the assigned department of the MoIRD, exchange of experience with any of the EU countries, expert support (including “expert on demand” facility) for revision of the relevant policies, regulations/guidelines/operating procedures/etc and to strengthen the role of the ministry in the procurement process and others in close cooperation with Energy Treaty Secretariat.

Ministry of Labour and Social Protection (MoLSP): MoLSP elaborates and implements the social protection policies. Its role is very important in the context of energy poverty eradication which is the main objective of the proposed action. The collaboration with the MoLSP will be mainly focused on identification the priority groups of beneficiaries affected by the energy poverty which are not sufficiently targeted due to outdated methodologies.

The Ministry of Health, Labour and Social Protection, being the central public authority empowered to develop and promote policies in the field of equality between women and men, develops policy documents in the field of gender equality and submits them to the Government for approval. At the same time, the Ministry coordinates: a) the activities of the coordination group on gender and gender units within the central specialised public administration authorities and local public administration authorities; b) the development of periodic national reports and reports of the Government on the degree of implementation of the provisions of international treaties in this area; c) implementation in

this area of recommendations addressed to the Government by specialised committees and councils of the UN and the Council of Europe.¹⁰

- With the Ministry of Labor and Social Protection we will jointly define, test and implement a mechanism to target energy poverty, from identifying vulnerable HHs to targeting them through the compensation schemes, up to monitoring and evaluating the impact and amending the compensation schemes as needed.

Agency for Energy Efficiency (EEA): The Agency acts as implementor of the national energy efficiency and renewables policies and programmes. It is mainly responsible for the National Communication Strategy on energy efficiency and renewable energy sources aimed at promoting rational energy consumption and the use of green energy. In accordance with the Law on Energy Efficiency, the Agency shall keep the Electronic Register of Energy Auditors and the Electronic Register of Energy Audit. At the same time, it coordinates and approves the continuous training programs for specialists in the field of energy auditing. In the last two years, the Agency has made an effort to strengthen these capacities by approving templates and minimum requirements for energy audit reports, only partially covering the building sector with approved training programs and auditors included in the electronic register. Two directions for the intervention of energy auditors in the field of transport and industry remain uncovered. At the same time, in accordance with that law, the Agency has not made significant progress in verifying energy audits. The Agency's single information centre is inoperative and requires capacity building.

- The aim of the Action is to strengthen the role of the Agency in energy efficiency and renewable national policies implementation, as well as its capacity of information/consultative centre for citizens and practitioners (energy auditors, managers, inspectors) in energy area, to develop a clear mechanism related to the procedure for verifying energy audits, as well as an assessment of the potential of renewable energy sources in the building sector.

National Fund for Rural and Regional Development: The Fund is considered as the most relevant instrument for public financing of energy efficiency and renewable energy projects and activities. The support would be targeted to institutionalize the fund and ensure it's good functioning in the energy area. Optimization of use of public funds will be considered through blended financing, private and banking sector investments.

- The project will initiate 2 national programs ("Rabla for household appliances" and "Green Home") that will be further institutionalized in the Fund upon project completion. The project will consider also assessment of the most relevant financing mechanism in energy area, and their strengthening if deemed relevant by national authorities (e.g. energy obligation schemes, energy service companies, Energy Performance Contracts, Revolving Funds, etc.)

Local Public Authorities (LPAs): LPAs contribute to the achievement of national energy efficiency targets and promote energy efficiency at the local level, in accordance with their responsibilities under the Law on Energy Efficiency. Thus, the second level LPAs have the obligation to ensure the

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https://eeas.europa.eu/sites/default/files/country_gender_profile.pdf

elaboration, coordination and approval of the local action plans in the field of energy efficiency at the latest by September 30 of the year preceding the start of their implementation.

In this regard, the authorities shall designate district energy managers, monitor their activity and establish their responsibilities, as well as request, if necessary, the assistance of the authority responsible for implementing energy policies.

Despite the EEA's efforts to increase the institutional capacity of district energy managers, their skills related to the development of local energy and environment action plans are still poorly developed.

- Thus, the project aims to increase the institutional capacity of energy managers in two key dimensions, namely: developing the capacity of managers to develop local action plans and preparing public procurement procedures and specifications for energy efficiency measures and the use of renewables. In this regard, discussions were held with the specialized central public authority to identify directions for action for local public authorities.

Renewable energy producers: In accordance with the Law on Renewable Energy, eligible producers are producers of electricity from renewable sources, who have obtained the right to purchase the entire amount of electricity delivered to the electricity networks at the prices / tariffs established in accordance with this law. Irrespective of the support scheme, producers of electricity from renewable sources enjoy non-discriminatory and regulated access to electricity networks at published, non-discriminatory, cost-based, transparent and predictable tariffs, calculated and approved in accordance with the Law on Electricity. The biggest challenge for this category of producers is to establish new rules for the electricity market. In this regard, each producer must plan and supply the amount of energy delivered daily to the central energy supplier. Following the discussions with them, the biggest problem is the lack of knowledge and skills to do these challenges as well as the issues related to balancing.

- In this sense, the project aims to increase the institutional capacity of energy producers, as well as the presentation of solutions related to specialized software for electricity generation planning for the next day.

Energy suppliers: The role of these entities is an essential and important one in the process of contracting electricity from both local and foreign energy producers. According to the electricity law, they are divided into several categories such as: universal service provider, central electricity supplier and last resort provider. In this context, Energocom has been designated by the Government as a central energy supplier, which has the obligation to procure electricity from eligible power plants producing from renewable energy sources, as well as electricity produced by urban district heating power plants, and to supply it on the electricity market at regulated prices, approved by the National Agency for Energy Regulation, under legal conditions.

In addition, FEE Nord and Premier Energy are universal service providers which, in the context of public service obligations, are designated to provide universal service to household consumers and small businesses.

The procurement of electricity by suppliers from producers, through a non-discriminatory and transparent procedure, is the key point in organizing such a process.

- In this regard, the project activity aims to develop a clear procurement procedure, ensuring all transparency procedures, including by purchasing renewable electricity at various agreed costs and resold to suppliers from renewable sources. This also includes software or hardware dedicated to this process.

Technical University of Moldova / CFC EECF: The Centre for Continuing Education Energy Efficiency of Public Buildings (CFC EECF) was established at the Technical University of Moldova with the support of the Agency for International Cooperation of Germany (GIZ) within the project "Modernization of Local Public Services in the Republic of Moldova" (MSPL). The mission of the CFC EECF - continuing education services in the field of energy efficiency of public buildings for managers of public institutions (educational, health, cultural, etc.), representatives with related positions in ministries, agencies and the private sector. In this sense, 5 training programs were developed, two of them being approved by the AEE (training program for energy auditors in buildings and training of district energy managers).

For the preparation and development of other training programs, based on the EEA's request, it is necessary to develop and pilot at least 3 training programs, two in the field of auditing and one in the field of energy management.

- In this sense, the project aims to contribute to the increase of the capacity of the staff of the Centre, to the preparation of training programs and the equipping of the laboratories detected for energy and renewable efficiency measures.

National Agency for Energy Regulation he National Agency for Energy Regulation (ANRE) : is the single authority tasked with regulating and monitoring energy sectors (electricity, natural gas, district heating, petroleum products sectors) and is therefore equipped with country-wide regulatory competences in the gas, electricity, heat and oil sectors through approval of regulated prices and tariffs, in accordance with pre-established methodologies, through issuing licenses and through developing and approving secondary legislation to ensure effective implementation of the primary acts. By law, ANRE is an institution legally distinct and functionally independent from any other public entity. Its main responsibilities are licensing, tariff setting and regulation (<http://www.anre.md/>).

- Activities described per each Component will aim at strengthening the capacity of the regulator and share best practices on monitoring implementation of obligations on creating and maintaining compulsory oil stocks and on creating and maintaining mandatory natural gas stocks.

Consumer Protection and Market Surveillance Agency: The Agency shall monitor the implementation of the provisions relating to the existence and correct application of the label and the presentation of the fiche for products placed on the market for sale, rental or distribution. In addition, in accordance with the Ecodesign requirements for energy-related products, the Agency shall monitor and apply corrective measures to ensure that the products comply, examine complaints and exchange information with other States. With the approval of the mentioned legal framework, the Agency did not progress on the implementation of the mentioned provisions. In this respect, the institution does not have sufficient institutional capacity to drive these activities. According to the discussions with the party concerned, the Agency at moment, records several complaints regarding the non-compliance of energy products placed on the local market by consumers. Thus, the disputes cannot be resolved due to the lack of a clear mechanism related to this aspect, as well as due to a total lack of capacities developed within the institution.

- Thus, the Action activity will facilitate the training and capacity building of the Agency in the energy labelling of products market.

Moldova ICT Association, Moldova IT Park and ICT companies: the ICT Association shall further be engaged in sourcing digital solutions for the energy sector and solutions to support energy efficiency in households and private sector.

Energy poor/ Vulnerable consumers:

As such, the primary beneficiaries would be vulnerable consumer households. In terms of specific vulnerable groups, the beneficiary unit is defined as the household, not the individual, which acknowledges that individuals in a household pool their incomes to benefit the entire household.

- The support will target households at least through an assessment of the household income. The measures also support improvements in governance and transparency such that the beneficiary identification and selection process would be fair and transparent and allows for civil society oversight.

To be effective and coherent and to advance energy market reform, there is need to work with other energy market players, such as Technical University, Consumer Protection Association.

2.5. Intervention logic /Programme Objectives, Key Results and Theory of Change

Expected impact: Enhance the country's energy security and resilience in the face of current and future shocks and prompt the energy transition.

Outcome: National energy markets are enabled to become functional, transparent, and ready to integrate in European regional markets, while citizens are benefiting from green energy transition in an inclusive way

Objective: assist the Government of Moldova to tackle the current energy crisis and energy poverty in addressing prioritized systemic elements in the energy sector to cope with potential future energy crisis.

Support will be provided to the Government of Moldova in building its capacities towards strengthening the national energy security, as well as in improving the legal and regulatory framework, operationalizing specific rapid large-scale interventions to tackle energy poverty and rationalizing energy consumption in buildings, fostering nationwide support for energy transition.

Specific objective: Support the Government of Moldova to:

1. put in place the legal and regulatory framework in the energy sector with mainstreamed social and climate considerations in line with the EU requirements
2. strengthen the capacities of the energy-related actors and enhancing institutional coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis.
3. increased awareness and communication among the population to adopt the best energy saving practices and measures and to encourage the use of renewables
4. operationalize nation-wide energy programmes and demonstrate solutions to increase energy affordability in residential and public buildings, targeting specifically the most vulnerable and affected groups of population.

Key results:

The Action aims to achieve the following results:

- 1.1. National policy framework and long-term planning in the energy sector is improved and aligned to climate commitments
- 1.2. National regulatory framework (both primary and secondary) is improved in line with Moldovan energy commitments and is ensuring that national authorities are better

prepared and can respond to emergency situations in energy sector and to the needs of the most vulnerable energy users

- 2.1. Key energy players have increased expertise, technological, institutional and enforcement capacities to prevent major risks in current and potential future energy crises
- 2.2. National capacities to organize transparent and non-discriminatory procurement procedures in the energy field are strengthened
- 2.3 Government capacities to monitor and provide targeted response to energy poverty is increased through institutionalization of new mechanism
- 3.1. Facilitate citizen's engagement in formulation of energy policies and contribute to increased transparency of decision making process
- 3.2. Advocate for renewables and practical solutions to alleviate energy poverty
- 3.3. National nudging program for household successfully implemented to improve and reduce energy consumption
- 3.4. Project visibility and results promotion
- 4.1 National Programs to adopt energy saving practices and technologies, including in vulnerable HHs are launched and piloted
- 4.2. Enhanced adoption of energy efficiency measures in apartment buildings
- 4.3. Increased domestic power generation from renewable energy sources for needs of public buildings

2.6. Implementation Approach and Indicative Activities

2.6.1. Component 1.

Improving policies and regulatory frameworks to enable energy security, as well as energy efficient and clean energy transition of Moldova in an inclusive way

The aim of this component is to provide flexible expert support to complement the existing initiatives and advance the policy and regulatory framework development in the area of energy. TA/expert on demand is also envisaged for the needs of the Moldovan Government.

The support will target transposition of the third acquis of the Energy Package into primary and secondary legislation. During 2021 Ministerial Council (Energy Community), Moldova has committed to transpose by 31 December 2022 a series of Directives and Regulations of Clean Energy for all Europeans package, which addresses the energy performance of buildings, renewable energy, energy efficiency, governance and electricity market design.

Further support would be provided for transposition of the Oil stocks Directive. Although, a Draft Law on creating and maintain a minimum level of oil product stocks was developed, MoIRD requested assistance for finalisation and promotion of this Draft, while additional capacity building will be needed for ANRE.

Following the gas crisis from October last year, a need to amend the secondary legislation regulating emergency situations emerged (Regulation and Action plan for emergency situations on the natural gas market and Regulation and Action plan for emergency situations on the electricity market) to remove inconsistencies between these specific acts regulating emergency situations in the natural gas and electricity sectors and the legislation governing management of emergency situations in general, to streamline and improve the decision making processes in relation to managing emergency situations. At the same time, following Ministerial Council Decision from November, 30, 2021, Moldova shall transpose into national legislation EU Regulation no. 2019/941 of 5 June 2019 on risk-preparedness in the electricity sector (by December, 31, 2023) and repealing Directive 2005/89/EC

and EU Regulation no. 2017/1938 of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) 994/2010 (by December, 31, 2022).

To enhance security of natural gas supply, MoIRD developed a series of provisions related to creating and maintain mandatory natural gas stocks. The Draft law establishing these provisions is expected to be adopted in the upcoming months. In this regard, additional assistance is required to further enhance the capacity of MoIRD and ANRE to implement the envisaged mechanism and to achieve the goal of creating and maintaining natural gas mandatory stocks, at the lowest costs possible and with the minimum impact on final consumers.

In the field of energy efficiency, as per the last Report of the Energy Community Secretariat, the implementation of the Energy Performance in Buildings Directive is still incomplete and achieving full compliance with this EU Directive implies the amendment of the existing Moldovan Law on energy Efficiency in buildings.

Given the lack of generation capacity to cover the internal market, there is need to develop and implement the legal framework in the energy efficiency and renewables to attract the necessary investments and reduce Moldova's dependence on imports. In this context, under the Project, assistance can be provided to national authorities in relation to implementation of the Law on promotion of use of energy of renewable sources, mainly on implementation of the support scheme aiming to attract investments in the renewable energy field. The support will be provided upon request by national authorities and being complementary to technical support already provided by EBRD (see Description of the Action, Section dedicated to EU engagement).

Result 1.1 National policy framework and long-term planning in the energy sector is improved and aligned to climate commitments

The aim of this result is to assist MoIRD in finalization of the National Energy and Climate Plan, aimed to become the main national policy document in energy security, decarbonization, internal energy market, as well as research, innovation and competitiveness areas is needed. In addition, after completion the NECP is to feed into the National Energy Strategy by 2030 (in line with EU Directives and climate targets).

The existing Energy Strategy of the Republic of Moldova by 2030, approved Government Decision no. 102/2013 does not reflect the requirements established by the EU Regulation on Energy Governance and does not correspond anymore to current realities and developments, both at the local and regional levels.

Wider consultations with the population and especially national gender experts and women's led organizations is to be considered for inclusive and transparent planning and legislative process in the energy sector.

Action 1.1.1: Support MoIRD in finalization of the National Energy and Climate Plan to ensure transposition of EU Regulation no. 2018/1999 and its approval by the Government, including the public consultation procedures and finalization of the modelling exercise for integrated gender sensitive energy and climate planning.

Action 1.2.1 : Support MoIRD in updating the Energy Strategy of Republic of Moldova by 2030, and its approval by the Government, including the inclusive public consultation procedures and gender sensitive budgeting

Result 1.2. National regulatory framework (both primary and secondary) is improved in line with Moldovan energy commitments and is ensuring that national authorities are better prepared and can

respond to emergency situations in energy sector and to the needs of women and most vulnerable energy users

The aim of this component is to assist Moldovan authorities, mainly MoIRD and ANRE, to develop and ensure implementation of regulatory frameworks related to energy security, energy poverty and enhance national capacities to address and manage potential emergency situations in the energy sectors, while taking into account the natural gas crisis from October last year. The activities will mainly focus on reviewing the existing legislation, developing necessary Drafts of new legislation or amendments and provide advisory support, including on gendered effects of energy poverty to enhancing the capacity of Moldovan authorities to ensure an efficient implementation and monitoring of the relevant legislation.

Given the high number of expertise support provided in the energy sector in Moldova, and uncertainties with coordination of the legislative work by various donors in Moldova, additional support is envisaged to be provided under Expert on Demand Support, to cover both analysis/assessments, advise and expertise for improvement of national regulatory framework. The expert on demand facility is to be provided upon ad hoc request by MoIRD and other national institutions.

Wider consultations with the population and especially national gender experts and women's led organizations is to be considered for inclusive and transparent planning and legislative process in the energy sector.

Action 1.2.1: Provide expertise on implementation and monitoring of fulfilling the gas stockholding obligations, based on best practices of EU relevant countries.

Action 1.2.2: Provide expertise on transposition (of the EU Directive no. 2009/119/EC), implementation and monitoring of fulfilling the oil stockholding obligations, based on best practices of EU relevant countries.

Action 1.2.3: Support to MoIRD to advance measures to safeguard the security of gas supply and interinstitutional coordination during emergency situation, including regulating the management of emergency situations in the natural gas sector as well as to improve the legislation regulating the management of emergency situations in the natural gas sector and to transpose the EU Regulation no. 2017/1938 of 25 October 2017.

Action 1.2.4: Support MoIRD to advance preparedness and reaction measures for emergency situations on the electricity market, including regulating the management of emergency situations in the electricity sector, as well as to improve the legislation regulating the management of emergency situations in the electricity sector and to transpose the EU Regulation no. 2019/941 of 5 June 2019.

Action 1.2.5 Improve definition and measuring of "energy vulnerable consumer"

According to the Law on energy efficiency, energy poverty in Moldova means lack of access of the final consumer to the modern sources of energy and technologies, improper heating comfort and/reduced energy purchasing power, especially of fuel for cooking, electricity, and heating.

At the same time, the legislation on natural gas and legislation on electricity operates with the notion of "vulnerable consumer" and is a reference to social assistance legislation (household consumer who, in accordance with the normative acts in the field of social protection, is defined as a disadvantaged person or a disadvantaged family member). Even if, the legislation

operates with the notion of “vulnerable consumer”, it has no mechanism in place in legislation to target and solve the issue.

Today, there is growing interest in adequately defining, measuring, and addressing this issue within national legislation. As more studies on this topic emerged, the complexity of the problem made establishing a widely accepted definition of fuel poverty very challenging. However, the action scope is to continue on the current UNDP work and to seek to outline an adequate methodology for define and measure situations when a household lacks a socially and materially necessitated level of energy services in the home.

Even if Moldovan legislation operates with the notion of "vulnerable consumer", the legislation does not contain plausible solutions that would target and solve the problem of "energy poverty" that affects large sections of the population and especially women left behind. Understood as a situation in which "a household or a person cannot provide heating or other basic energy services in their homes", "energy poverty" has tangents with several interdependent elements that need to be further developed.

Action 1.2.6: On-Demand support is provided to national authorities for improvement and efficient implementation of the energy legal framework based on Expert on Demand facility

Upon request of MoIDR and other national authorities, additional support is envisaged to be provided under Expert on Demand Support, to cover both analysis/assessments, advise and expertise for improvement of national regulatory and policy frameworks. Inter alia, Moldovan authorities may be assisted in relation to development and promotion of amendments to the Law on Energy Performance in Buildings, to efficient implementation of the support scheme from the Law on promoting the use of energy from renewable sources, in addition to technical assistance provided by EBRD.

2.6.2. Component 2.

Enhancing institutional capacities and coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis.

The aim of this component is enhancement of i) the national expertise in the energy area and ii) capabilities of Government and Moldova energy institutions to be able to advance the reforms in the energy area as result of improved policy and legislative frameworks as part of EU energy acquis approximation/transposition processes and be better prepared to react to current and potential future energy crisis.

The component addresses the expertise and capacity needs through a comprehensive approach, starting from support to alignment of the structures and business processes of Government institutions to respond to national commitments in the energy area, to hands on support to strengthen the expertise and capacities for the implementation of the most relevant legal and regulatory acts (e.g. on energy security, emergency response, energy procurement, energy market functioning, RES, EE, etc.) and providing solutions to ensure sustainability of capacitation efforts. At the same time, an intersectoral coordination mechanism will be developed to prevent the risks involved in energy crises in the Republic of Moldova. Additionally, there will be developed a range of digital solutions and platforms to increase the efficiency and security of the energy sector.

The component aims at implementation of a coordination mechanism among donors and IFIs, given the ongoing and the increasing emerging support in the energy sector. Currently such a coordination mechanism is established (Sector coordination council) but not properly functioning. Its support would maximise the value of the provided support, will bring cost efficiency and rational allocation of resources for both policies' development and investments projects. The coordination efforts would

enable a better understanding of the needs and collaborative actions required to advance the reforms in the energy sector.

Result 2.1. Key energy players (central and local authorities, regulators, energy producers and suppliers, training facilities, etc.) have increased expertise, technological, institutional and enforcement capacities (business processes, functions, financial and coordination mechanisms) to prevent major risks in current and potential future energy crises

This result addresses the expertise and capabilities building needs through a comprehensive approach, starting from support to alignment of the structures and business processes of Government institutions to respond to national commitments in the energy area, to hands on support to strengthen the expertise and capacities on the implementation of most relevant legal and regulatory acts and providing solutions to ensure sustainability of capacitation efforts. At the same time, a coordination mechanism will be developed to prevent the risks involved in energy crises in the Republic of Moldova.

Action 2.1.1: Conduct an assessment of the existing institutional and functional development challenges and opportunities in the energy sector. Prepare the packages for strengthening the MoIDR's Energy Department, Energy Efficiency Agency and Regional and Rural Development Fund (this would include functional reviews, update of institution's regulations, business processes and KPIs for the staff, etc.)

Action 2.1.2: Design and support the main public financing (and co-financing) tools for energy efficiency & renewable projects, considering gender sensitive budgeting

Action 2.1.3: Support the design and setup of regular co-ordination mechanism among the key stakeholders in the energy area, under the leadership of EU and of the MD Government

Action 2.1.4: Develop a capacity building programme on specific needs/topics of MoIDR, AEE, ANRE, ACPMS, LPAs, CFCEECP/UTM, energy producers and suppliers, as well as for various target groups (energy auditors, energy manager, inspectors, etc.)

Action 2.1.5: Support the implementation of National capacity building programmes in energy sector (trainings, study visits, etc.)

Action 2.1.6: Support energy regulators, energy suppliers, etc. to forecasting and monitoring wind and solar production (procurement of software, trainings on software use, exchange of experience, etc.)

Action 2.1.7: Support the training facilities with technical equipment for education and training needs

Action 2.1.8 On-Demand support is provided to national authorities for capacity building needs based on Expert on Demand facility

Result 2.2. National capacities to organize transparent and non-discriminatory procurement procedures in the energy field are strengthened

The purpose of the action is to strengthen the capacities of the institutions that are responsible for organizing the procurement procedures, especially those related to the tendering of power capacities by the Government, and electricity procurement.

Procurement procedures remain a major issue for the Republic of Moldova in terms of transparency and preparation of tender documents. In the Government's efforts to organize these procedures as transparently as possible, there is another issue related to the lack of institutional capacity to prepare

well-structured terms of reference for applicants. These issues often lead to delays in procurement procedures through appeals, which is why the implementation process is also delayed.

In accordance with the new rules of the electricity market, the tender process will be monitored by the Secretariat of the Energy Community by appointing one or more representatives to that effect. From a commercial point of view, the representatives of the Secretariat have the right to request from the participants involved in the electricity procurement process any information related to the implementation of the procurement procedures.

Action 2.2.1. Support to running tenders for big Renewable energy capacities, including examining the opportunity of allocating RES capacities for IFC's "Scaling up Renewable Energy" Program;

Action 2.2.2. Developing the functioning procedures (to be approved by ANRE) for buying renewable electricity at different costs, aggregation and reselling to suppliers (including dedicated software and hardware);

Action 2.2.3. Support of the LPAs, companies to ensure transparent procurement procedures applicable in energy sector: support in adjusting suppliers companies internal procedures, designing energy procurement process and technical support in organizing tenders in line with the new Law on Electricity (after being voted in Parliament).

Result 2.3. Government capacities to monitor and provide targeted response to energy poverty is increased through institutionalization of new mechanism

There is a limited understanding of energy poverty, including its gender related effects despite growing public and institutional awareness. The lack of research, definitions and methodologies has made it difficult to assess the severity of the problem. Without a structural understanding of the issue, its determinants and its impact, the policies meant to alleviate it are likely to have a limited efficiency.

With rising energy prices, the government has pledged to offset some of the spending. The compensation mechanism is a temporarily one, which needs to be evaluated and strengthened or reformed. Some of the approaches used to enable timely and adequate crisis response raise questions about their longer-term implications. The aim of this activity is to strengthen these capacities and to better understand the indicators and aspects related to energy poverty and its gender related effects.

Action 2.3.1 Support development of a process to monitor energy poverty and increase institutional capacity to maintain and monitor the gender-responsive mitigation mechanism.

Social assistance is an essential mechanism through which governments can mitigate negative impacts on rising energy costs for the poor. Cash benefits (in form of subsidies or transfer to household) are an important form of support for households that receive them. The main scope of the action is to develop a gender responsive mitigation mechanism and identify those HHs in need for support (with a focus on women headed HHs and those left behind) , as well as those at risk entering energy poverty, define energy poverty and develop a process (mechanism and data sources) to monitor energy poverty.

In short term, as a quick response, reform plans include integrating the support around the platform provided by the Social Assistance Program. The potential reform also includes: (i) improving the instruments used in the targeting and intake processes; (ii) improve the eligibility criteria; (iii) strengthening overall administration of the program and the management information systems; and (vii) over the medium- to long-run, strengthening services and incentives to link beneficiaries to the energy efficiency programs/ knowledges, with the ultimate objective of helping them - graduate from dependence on transfers.

The proposed measures would contribute to country outcomes of broader social inclusion, gender equality and stronger social protection in Moldova by improving the ability of the social safety net to mitigate the impacts of shocks on women left behind, poor and vulnerable in a cost-effective manner, while laying the ground for further reforms to promote "graduation" of beneficiaries in the longer run.

2.6.3. Component 3.

Awareness raising, information and communication to foster public support for energy transition, increased energy efficiency and to address disinformation in a gender sensitive manner

The component will increase awareness and objective and impartial information on the subjects related to the energy sector, energy efficiency transition specifically. Also, the focus will be to debunk myths about the costs, convenience, and efficiency of renewable energy sources.

The efforts of the component are oriented in four main directions:

1. Contribute to citizens' empowerment to participate in decision making process in the field of energy, debunk myths and increase level of literacy in the field of energy sector
2. Advocate for use of renewables and raise awareness on the implications of energy poverty and solutions to alleviate it
3. Involve people in national nudging program for household successfully implemented to improve and reduce energy consumption
4. Ensuring promotion and visibility of the project's results and donor's contribution

Result 3.1. Facilitate citizen's engagement in formulation of energy policies and contribute to increased transparency of decision making process

This result aims to promote existing mechanisms and propose new ones to ensure citizens' participation, so as to ensure impartial and trustworthy information.

The energy crisis from 2021 revealed issues related to trustworthy information. People's worries were fueled by misinformation and sharing of information from untrusted or even unknown sources. All these generated a lot of controversial discussions and confusion. This situation was worsened by the controversial news published by some mass-media, that took political narratives (see the link <https://euvdsdisinfo.eu/moldova-political-pressure-in-the-gas-pipeline/>).

Another critical aspect related to literacy is the general population's insufficient knowledge and understanding of subjects related to tariff forming components, procedures applied, and contractual agreements for energy supply.

To gain these, the following actions will be performed:

Action 3.1.1. Promote mechanisms to involve citizens in the decision making process in the energy sector (consultations, etc.). Propose new tools to engage people (surveys, sensemaking, focus groups).

Action 3.1.2. Debunk myths from the energy sector and broadcast them on high profile media and by engaging influencers.

Action 3.1.3. Inform the population on the tariff forming components, procedures applied, and contractual agreements for energy supply.

Action 3.1.4. Awareness raising and communication measures defined and mainstreamed into policies and legislation

Result 3.2. Advocate for renewables and practical solutions to alleviate energy poverty and nationwide energy transition

This specific result aims to make best use of existing channels of communication and public awareness on energy issues at the national level, and create new, easy-to-read and understand content, so as to contribute to a better informed population.

Relevant one-stop-shop energy information has been established in the past within the Energy Efficiency Agency. However, it needs support to be reactivated, both in terms of its institutional formalization, consent to the day-to-day operation, development of awareness and communication tools on EE and RES, and deploying measures that would influence the energy-efficient behavior of the population. Additionally, under this component, there will be provided support to MoIRD and Government communicators to enhance the culture of communication on energy matters.

Consumer information and empowering activities are other targets to archive the proposed result. The efforts will focus on instruments and policies for behavioural change, including access to finance, fiscal incentives, transparency, best practices, and successfully implemented projects. Specific information campaigns and activities and increasing media awareness and coverage of subjects related to EE and RES will be performed.

Action 3.2.1. Support EEA, MoIRD to upgrade consumer information and empower culture, platforms, and tools to address the EE&RES matters to the general population and tailored to the needs of women and men

Action 3.2.2. Revamp www.aee.md and other relevant institutional websites as a communication platform/info point on the benefits of energy efficiency and the best energy-saving instruments

Action 3.2.3. Media and general population awareness on energy-efficient consumption and expanded use of renewables, with gender lense

Result 3.3. National nudging program for household successfully implemented to improve and reduce energy consumption

Programme will be based on comparison of the most inefficient households (with consumption above the median) with most efficient neighbours. It will be done in line with successful UNDP behavioural experiment, in partnership with Premier Energy, FEE Nord and Moldova Gaz SA, coupled with National Programme for home appliances.

The intervention will consist of two parallel programmes, i.e. 'electricity program' (EP) and 'gas program' (GP), both targeting two layers of end-clients: those most inefficient and everyone else. Separate impact evaluation will be done on a monthly basis (based on evidence on electricity and gas use), quarterly and a final evaluation after 12 months of the EP and GP implementation. The EP will target 200,000 HHs to receive behavioural letters comparing those HHs with most efficient neighbours. Over 200,000 other HHs will receive re-modelled invoices containing nudging elements and tips to reduce consumption. The GP will target about the same number of HHs. The capacities of the programs to include more HHs depend on the capacity to process data and couple the billing process with that of developing and sending behavioural letters. On bill nudging is possible to start in early 2023.

UNDP team to write a new code/algorithm that will automatically identify the HHs to receive the letter (in case of those most inefficient), automatically merge the list of households into a letter format and sends the letter to print. Another code will automatically detect the HHs to receive simple nudging letter.

Action 3.3.1 Implementation of the nudging programme to reduce energy consumption.

Result 3.4. Project visibility and results promotion

A communication strategy and detailed communication plans will communicate to a larger audience the results of the project, ensuring high visibility of the EU's contribution.

The actions will cover a general audience, with specific targets of interested stakeholders and national and local media institutions.

The media and awareness activities will be designed in coordination with EU Delegation and UNDP Moldova and active involvement of MoIRD, EEA, and other structures.

Continuous visibility actions will be implemented throughout the project to promote the achieved results, new initiatives, and opportunities and enrich the understanding of EE and RES issues.

Action 3.4.1. Implementation of project's communication activities with a specific focus on the target audience

Action 3.4.2. Contribute to a better quality of media reporting on the EE and RES subjects and initiatives.

Action 3.4.3. Raise awareness on the renewables' benefits and EU's contribution to advance renewables and implement practical solutions to tackle energy poverty.

2.6.4. Component 4.

Demonstration/pilots of energy efficiency and renewable measures to increase energy affordability and development of sustainable financing mechanisms with primary focus on vulnerable households and public sector

Result 4.1. Gender responsive National Programs to adopt energy saving practices and technologies, including in vulnerable HHs are launched and piloted

Action 4.1.1 Design and support the launching of a large-scale vouchers programme for household appliances dedicated to vulnerable energy households.

The vouchers programme will help energy vulnerable families, in particular women left behind, to reduce their bills by replacing the old appliances which are divided in two categories: category 1- electric bulbs; category 2 - fridges, washing machines and electric stoves. with new energy efficient ones who own an energy label. The mechanism for issuing the vouchers will be developed on a digital platform where the potential beneficiaries will have the possibility to apply for getting the voucher. The platform will be developed by engaging local ICT sector, on competitive basis, through UNDP's Digital Innovation Challenge mechanism. The platform will also be used to monitor progress of the programme, collect additional data from users, and similar. The vouchers will contain personal identification data to avoid transmission to other persons. The sellers of the appliances will be approved in the programme on a competitive basis (it is expected to be signed contracts between UNDP and sellers of appliances) based on clear and transparent criteria, such national coverage, capacity to ensure recycling or contract with authorized companies for recycling, capacity to ensure home delivery, a large offer of appliances with energy label etc.. The beneficiaries will have the possibility to buy the appliances at a significant reduction of prices (between 70-80% depending on the category of appliances) with voucher and ID card. For the rest of the amount will be assessed the payment possibility in instalments over a period of 6-12 months. For one family will be allowed to benefit of one voucher from both categories of appliances. The main target of the programme are the

families beneficiaries of compensations from the government for the cold period of the year (about 200 000 families).

The seller will get the discount reimbursement from UNDP after presenting the vouchers and the copies of the payment documents. The beneficiaries will be checked with the list of MoLSP. A special attention will be paid to the traceability of electronic waste management processes (old appliances), recycling and non-polluting disposal. UNDP will support robust evaluation of the impact of the programme on the energy consumption in beneficiary and all other households.

Action 4.1.2 Design and pilot of the Green Home Grant Programme

It consists in financing the dedicated packages of RE and EE solutions for households affected by energy poverty. After being institutionalized within NFRLD it is expected to be available for all households. The main scope of the action is to develop and put in place an innovative, scalable, and impactful tool for those households affected by energy poverty and interested in implementing energy efficiency measures and adoption of renewables solutions. The budget of the project will finance from 50% to 100% the costs for the adopted solutions depending on energy vulnerability of the potential beneficiaries. Gender dimension will be key to decision making in selection process.

Result 4.2. Enhanced adoption of energy efficiency measures in apartment buildings

Action 4.2.1 Refurbishment of the distribution heating system form the multi story residential buildings connected to CHP in the city where it is operational.

The current vertical distribution system in old buildings from Chisinau, Balti, Glodeni, Comrat and Ungheni cities is outdated and gives no possibilities to apartment owners to regulate their heat intake, to have qualitative domestic hot water service and to pay exactly for what each individual apartment consumed. Also, due to poor quality of centralized domestic hot water service (DHW), many apartments have disconnected from this service and are preparing their domestic hot water with electric boilers, which is a much more expensive option. Moreover, under current system, the district heating companies have no direct contracts with individual apartments - the thermal energy delivered to the entire building is invoiced based on the contract with Homeowners Associations, and the latter divides the total amount consumed between individual apartment owners, without being able of measuring the real heat intake and quality of service in each apartment.

The pilot will consist in switching from vertical to horizontal distribution of heat with installation of modern net meters to allow efficient and automatic operation of heating in autumn and spring period, and offering the possibility to beneficiaries to regulate the heat comfort in each apartment by adjusting the desired temperature. In addition, to minimize the energy losses and reduction of bills might by explored the works of insulation of the building envelope might be explored, changing the windows, insulation of the ground floor and last floor, renovation and insulation of the rooftop, as well as installation of photovoltaic panels on the building rooftop to cover the energy bills for elevator and interior lightening (approx. 12 kW power).

The measures applied will have a high replicability and can be extended for at least 80% of Chisinau's housing stock. The pilot will lay the foundations for the best technical and financial scenario, which could be used by similar multi-storey blocks in Moldova.

Participatory consultations with gender lenses and gender assessments in the selection of buildings will be carefully thought.

Result 4.3. Increased domestic power generation from renewable energy sources for needs of public buildings

Action 4.3.1. Promote the use of renewable energy within medical institutions.

According to the existing data, the hospitals are very energy intensive consumers of electricity, and they spend significant amounts of money from their budgets (more than 30% of the budget goes to covering energy costs). Installation of photovoltaic systems according to the net metering scheme will allow the beneficiary medical institutions to save significant amount of energy and ensure a higher level of security. The saved money will be possible to be used for improving the quality of provided health services.

As part of the implementation of this activity, UNDP and its partners will examine the possibility and test a crowd sale mechanism to support investments and encourage patient local and foreign investors to finance the future installations. For this purpose, a dedicated digital blockchain-based platform will be developed on a competitive basis, through UNDP's Digital Innovation Challenges, that will give the possibility to qualified investors to buy and lease a certain number of photovoltaic cells to the medical institutions. It is envisaged that between 5-25% of the cost of the future installations will be covered through such a mechanism.

Action 4.3.2 Assessing the feasibility of adoption of integrated renewable solutions and piloting their implementation

For this action, it will be assessed the possible options of adoption of integrated renewable solutions such as solar collectors for hot water and cooling systems. Within this action, it will be assessed also the possibility to implement integrated EE and RE solutions in other public buildings.

3. UNDP MOLDOVA RELEVANT EXPERIENCE, LESSONS LEARNT AND INTERVENTIONS

RATIONALE

Clean and affordable energy is one of the key pillars of UNDP work and is a pre-requisite for achieving the 2030 Global Development Agenda, the SDGs and the main global treaties in the area of climate change, environment and energy. UNDP's current energy-related portfolio globally includes app. 260 sustainable energy projects and programmes in the total amount of around US\$ 1 billion in grant financing and leveraging close of US\$ 6 bln in co-financing from the public and private sectors. The 20-year track record created a unique base of knowledge on a wide range of barriers that the developing countries, such as Moldova, face as they aspire to transform their energy sectors.

Climate change, environment and energy is one of the key pillars of UNDP Moldova Country Programme Document (2018-2022) and envisages the advancement of low-carbon and climate-resilient, risk-informed development in line with Paris Agreement commitments, supporting a conducive policy framework. It addresses issues related to energy poverty by unlocking the building retrofit market and increasing production of renewable energy, contributing also to sustainable growth and job creation

UNDP Moldova is well positioned in supporting the country's energy transition, having the knowledge, policy expertise and practical experience of working with Government institutions in energy efficiency and renewable energy sources, both at the level of policies and the level of concrete interventions on the ground.¹¹

UNDP is recognized for its expertise in local/regional development, economic development including in breakaway regions, and regions with special status, covering more than 2/3 of the country with its interventions. It has a strong ability to build and foster partnerships with and between various stakeholders, such as public authorities, civil society, local communities, and private sector in advancing an inclusive and equitable growth in the country

UNDP has effective structures and procedures in place to ensure results-based management and delivery of the following functions:

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- ¹¹ Through the EU-funded "Moldova Energy and Biomass Project" implemented by UNDP, the country managed to annually reduce 70.000 CO₂, improve living and working conditions for over 197 000 people of Moldova, create 614 new green jobs. UNDP has successfully mobilized 187 communities to co-finance from their own resources a proportion of up to 20% from the total investments of the project for solar panels and biomass heating systems, etc. UNDP's flagship interventions in renewable energy helped to increase the use of renewable energy from 5 to 14,7 per cent of the total energy mix.
 - In the framework of the "EU4Climate project", implemented by UNDP, climate change mainstreaming recommendations are incorporated into energy sector's policies, strategies and programmes.
 - The National Adaptation Planning-2 Programme, implemented by UNDP, focuses on the mainstreaming of the different facets of CCA into national and sectorial processes, particularly in the priority sectors, including the energy one.
 - Through the "Moldova Sustainable Green Cities Project" funded by GEF, UNDP supports the building retrofit market, introduces the Energy Management Information Systems in public and residential sectors with the possibility of real time monitoring and management of energy consumption, introduces national Monitoring, Reporting and Verification system, supports Chisinau municipality in developing the Sustainable Energy and Climate Action Plan, EPC contracting modality, zero emission transportation schemes, renewable energy use, etc.

- Capacity assessment and screening of beneficiaries in a fair and transparent manner and increase the capacities of final beneficiaries to implement the energy-related support
- Effective and efficient Monitoring & Evaluation procedures, and social and environmental safeguards
- Capacity to implement complex large-scale initiatives, including large scale procurement and recruitment at national and international level
- Expertise, knowledge and best practices from the region, made available through the Regional advisors and service centre, and collaboration with other UNDP offices from Central and Eastern Europe and CIS countries.
- Gender equality commitments of UNDP corporately and in Moldova.

3.1. Methodological Approaches:

For the implementation of this action a series of national and regional platforms and good practices and approaches will be applied, such as follows:

UNDP platforms:

The Energy Hub: is currently being established by UNDP which will work as an integrator of services and platform for partnerships. This Project will benefit from the capacities, methodologies and services to be provided by the Hub such as: (i) policy advisory services;(ii) innovative business models and financial mechanisms;(iii) digital transformation for clean energy; and, support to high level dialogues on energy.

The Climate Investment Platform (CIP): which is a partnership that supports countries in reaching ambitious climate goals by decluttering the climate finance space and facilitating investments in climate action. CIP is a joint initiative of UNDP, the International Renewable Energy Agency (IRENA), Sustainable Energy for All (SEforALL). Currently, CIP's first focus is on clean energy. The Platform will promote coherence across partners' initiatives and facilitate streamlined connections between clients and partner institutions to provide its services to clients. UNDP will use CIP experience and know-how in this project and also mobilize its partners for the benefit of the Project.

The *UNDP's Digital Transformation Initiative* is based in its headquarters and provides new use of data produced from UNDP projects. The support from the Initiative may include data collection, assessment and presentation tools, ready to use digital applications, and other innovative solutions.

National platforms:

Donors Energy Coordination Council: recently established by MoIRD, is a platform that brings together development partners (WB, USAID, UNDP, EIB, EBRD, EUDel, EnC, GIZ, RO/FR/SE Embassies) and has the role to coordinate the external assistance provided to Moldova in the energy area. This Council was established given the emerging needs and increased support in the energy sector. It will amplify the value of the support provided and will streamline and synchronize the allocation of resources for technical assistance and investment in this sector. UNDP will use the meetings organized under this platform (currently held once in a month) to be updated on technical and investment needs of the country, as well as updating development partners in project's progresses and results.

The Action is considering to provide support to this platform to improve the coordination among development partners to ensure there is no duplication of efforts and no overburdening of authorities with poorly coordinated deployment of expertise

EU Platforms:

The Energy Community Treaty Secretariat: brings together the European Union and its neighbours to create an integrated pan-European energy market. Signed by Moldova in 2010, EnC Treaty allows the country to be an active member of the Regional and European Energy Market, committing the state to align its national energy (electricity, gas, EE, RES, oil) climate, environment, infrastructure, competition and statistics related legislation with the community acquis. The respective energy EU acquis provisions under the EnC Treaty, as well as annual decisions of the Ministerial Council will be an integral part of the project logic and implementation methodology. The project will benefit of EU best practices and relevant technical guidance on various elements of energy policy&legislation development that will be shared by the EnC Secretariat.

International platforms:

IRENA: supports countries in their transition to a sustainable energy future and serves as the principal platform for international co-operation, a centre of excellence and a repository of policy, technology, resource and financial knowledge on renewable energy. After having in place RES related legislative framework, IRENA conducted Renewable Readiness Assessment (RRA), based on multi-stakeholder dialogue, that identified challenges in renewable energy deployment and suggested the solutions required to further exploit indigenous renewable energy resources, while integrating growing shares of solar and wind energy in the Republic of Moldova's power system. Short- and medium-term recommendations were formulated and presented to guide the formation of new policies, or the reform of existing ones, opening up a more enabling environment for renewable energy. The project will consider the IRENA's recommendations for Moldovan RE sector and its best practices in this area.

Good practices and approaches:

Human rights based approach(HRBA). HRBA endures implementation of leaving no-one behind principle and developing the capacities of the "duty-bearers" to meet their obligations and/or of the "rights-holders" to claim their rights. When promoting the concept of energy affordability in the framework of this Action, a special attention will be paid to the most disadvantaged groups to properly engage them in the planning and implementation processes.

Participatory approach. For the energy transition to be successful a highly participatory approach should be followed. This principle will be embedded in all the activities and processes of the Action, with an emphasis on the participation of different categories of societal actors (women, youth, socially vulnerable, private sector, public sector etc), in development of the national energy policy documents, capacity building activities, awareness raising, and clean and affordable energy services provision.

Citizens engagement. Citizens engagement provides participatory and engagement conditions, via consultative processes, to all target groups, including men and women, youth and vulnerable persons.

Comprehensive Capacity Building actions. These actions implemented cross cutting intervention in all project components, are to ensure a multi-dimensional capacitating of all stakeholders, with three mutually reinforcing levels of capacity to be tackled: policy, institution, individual.

National ownership and accountability. In line with this approach, the Action will provide support to the national counterparts to develop their capacities to lead, manage, achieve and account for their national priorities in the energy and social sectors.

Collaborative approach. The project has been designed in line with this approach to build up on the needs for the energy security and affordability and to ensure follow-up collaboration with the main actors involved in the energy transition. The convener role that UNDP usually has at the country level, enables a comprehensive stakeholder engagement process, bringing together a wide range of stakeholders, including the IFIs, breaking the silos across sectors to advance the energy security and transition in a fair and equitable manner.

Innovative approach. There are numerous innovation and digital transformation elements in this Action that are focused on ensuring that proposed actions and solutions are facilitating inclusion and participation of vulnerable households, decisions are evidence-based and digital technology is an equalizer and permits for connecting as many vulnerable households as this is possible. Where possible, the action will seek engagement with the local vibrant ICT sector to rapidly source technologically feasible digital solutions.

A data-driven approach. Multiple interventions are informed by the available and new types of evidence. For instance, in designing, implementing, and evaluating behavioural intervention, the Action will use granular irreversible anonymized electricity and gas consumption data at the level of households.

3.2. Lessons Learnt

Drawing on the experience from past and on-going energy-related programmes, funded by the EU and other donors, the main lessons learnt are:

Country ambition: By submitting the 2nd NDC where the country has committed to more ambitious GHG emission reduction targets, it demonstrated ownership for significant changes in the energy sector, inclusively. It is a momentum on which this Action will build upon to achieve successful results.

Holistic and evidence-based policies and approaches: Such policies require consideration of factors that are beyond the energy sector and are end-user oriented. In response to these lessons learnt, the policies promoted will take into consideration the environmental/climate, social and demographic, economic and behavioural characteristics of those energy-poor and vulnerable, as well as those at risk of becoming vulnerable. Such approaches shall be evidence based, this permits for robust impact evaluation and informs the scaling-up or replication at various levels (regions, communities, other). Policy-level interventions, capacity building and piloting of measures on the ground – are key to ensuring the ownership over and sustainability of the EE-related interventions, beyond project implementation period.

Socio-economic benefits: demonstration of such benefits would minimise resistance to transformation changes in the energy sector. Building in this lesson learnt, the Action envisages scaling the behavioural intervention and further testing of social norms to induce more responsible consumption at the level of households;

Market and energy consumer's maturity: While there might be important and significant advance on the policy side, implementation of energy solutions on the ground could lag behind. One way out would be to involve the third-party financing mechanism to accelerate investments and market growth.

Foster system-wide innovation: Technological and social innovation is a key enabler for achieving successful transformation, therefore this Action will put a special emphasis on using the latest digital technologies and solutions and social innovation methods to support the most vulnerable to become more resilient, as well as to find new coping mechanisms and faster overcome the difficulties associated with energy poverty.

Limited national technical expertise: Implementation of various donor's initiatives demonstrated limited technical knowledge and expertise in the energy sector. To overcome this barrier, the Action will closely liaise with the Energy Community Treaty Secretariat, IFIs, UNECE, UNDP's national and regional rosters and other structures to tap into their pools of experts and expedite their deployment for implementation of this initiative.

4. SUSTAINABILITY

The emergency support has been triggered by the current energy crisis affecting in the first instance the poorest population, hence determining the national authorities to put in place the necessary tools and instruments to address the existing barriers and gaps in the affordable energy supply. As such, the Action is nationally driven, and the ownership of the central public authorities is high in the circumstances that energy security and affordability is the central priority of the current government.

The sustainability of the Action will be ensured through engagement and collaboration with the key actors in the energy sector from policy makers through energy providers, regulators and managers by implementing coherent and complementary actions addressing the various dimensions of the energy security and transition issue. The design of this Programme is building upon in depth consultations that have been held with the MIRD, energy experts, IFIs, Energy Community Treaty Secretariat, etc. They will continue to be involved and consulted throughout the life of the Action to achieve the scale and sustained impact that is expected. The aim is to build partnership models (CPA, Energy Regulators and Energy Providers) which are long lasting, transformative, scalable, and can continue beyond the project lifetime and without further external assistance.

Further, the legislation to be promoted as part of this Action will interconnect with the social aspects, enabling a more facilitated cooperation between the government and citizens in terms of adopting new energy-efficient technologies, behaviour and actions. The sustainability of this action will be ensured through reconciling of the energy trilemma that should bring, secure, affordable and sustainable energy. Cooperation with the Ministries of Infrastructure and Regional Development, Labour and Social Protection and Environment would facilitate alignment of the developed policies with the national, regional and global social, energy and environmental/climate change targets.

Communication on the energy issues is another important cornerstone of the successful energy transition, and in that sense the Action will run a large awareness raising and communication campaign while in parallel strengthening the communication platforms/info points to provide information on the benefits of the energy efficiency and the best energy saving instruments in a consolidated manner. The sustainability of this action will be ensured through engagement with the Energy Efficiency Agency and other institutions mandated with the awareness raising and communication actions through provision of tools, instruments, training equipment, methodological guidance and policies with mainstreamed communication actions. The communication will also rely on the identified determinants of change that are mostly appropriate to influence the behavioural change of energy end-users. Further, the Action envisages a capacity building programme for the central public authorities, energy regulators and providers, energy managers and building engineers, and other energy market players, aimed at advancing the energy market reforms, deployment of the long-awaited financing instrument and the application of the transparency and fairness principles in the respective sector. Through these interventions, the institutional sustainability would be reached out to enable provision of secure and affordable energy services in an inclusive manner. Further the institutional sustainability ensures that systems, institutions, policies and procedures at the national level are functional and meet the demand of users for improved services. This means that service users, authorities and service providers are clear about their own roles, tasks and responsibilities. They can fulfil these roles effectively and are transparent to each other beyond the Action lifetime. Investment in human capacity at personal level will ensure ownership of results and further continuation of activities.

Last but not le important is the investment support provided to the energy poor consumers, supporting the demonstration of the measures leading towards reduced consumption of the energy in households, public buildings and SMEs. Sustainability of this action will be ensured by the cost

effectiveness of the actions and transformative changes that it is going to be produced during the upscaling phase under wider national programmes: “Rabla for household appliances” and “Green house”. The involvement of the national authorities during the development and implementation phases of the programmes, will build their capacities and understanding of the technicalities for development and deployment of new financial public investments mechanisms. Further, the financial sustainability will be ensured by both the type of financial arrangements put in place and the thorough preliminary analysis in the preparation of financing. The analysis will assess the public and private sector partners, their trustworthiness, the synergies and cooperation with the IFIs where work on common public buildings is envisaged, and others.

5. RISK LOG AND RISK MANAGEMENT

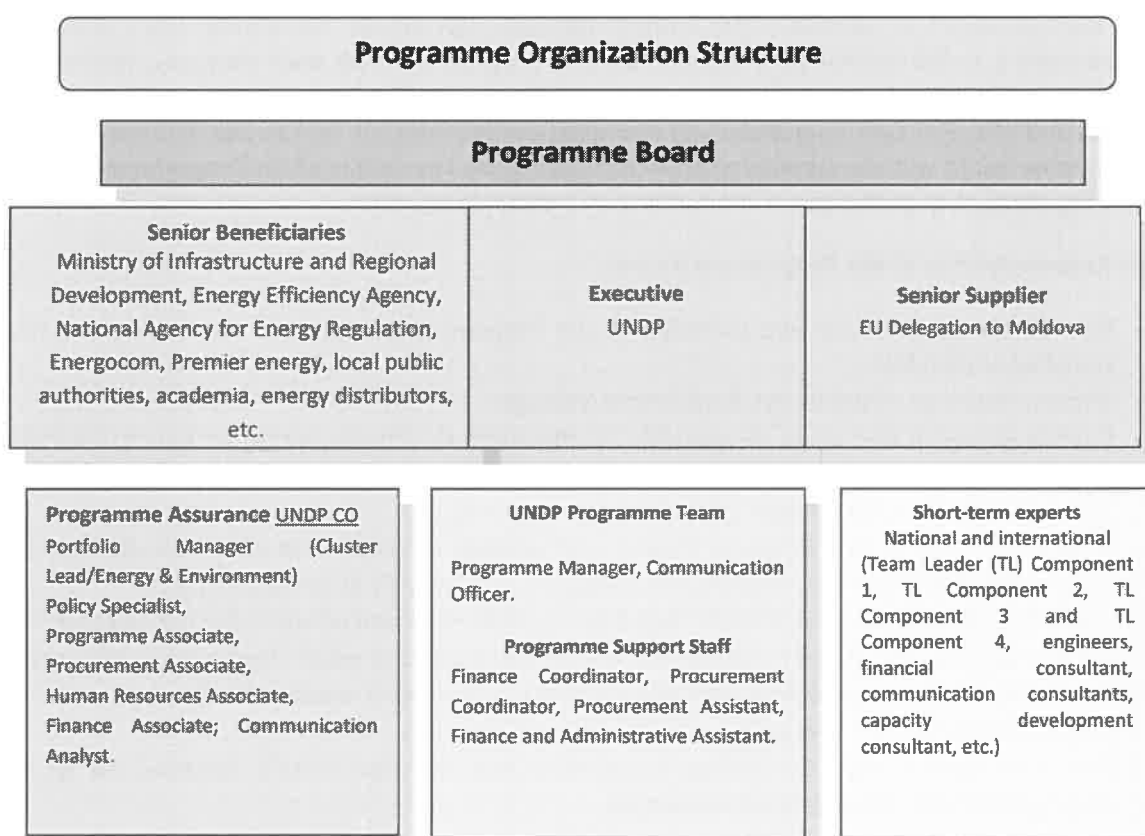
Description of risk	Type and Category	Risk management actions
<p>Volatile political and security environment, subject to unforeseen and sudden changes</p>	<p>Political/ Medium</p>	<p>The action will take into account the specific political setting that will exist in the region at the moment of implementation.</p> <p>The implementation of the activities will be planned and approached with caution, including the timing, visibility and presentation issues.</p>
<p>Delay in programme implementation due to the urgency of the Action</p>	<p>Operational/Medium</p>	<p>During the design of the programme, the selected activities will be checked against the allocated timeframe for the Action based on a thorough analysis and previous piloting experience; during the implementation the expedited procurement methods will be considered and deployed (LTAs, Rosters, etc)</p>
<p>Possible overlapping with relevant ongoing initiatives</p>	<p>Operational/Low</p>	<p>The Action will identify cooperation activities with the ongoing programmes and projects and will develop joint activities in order to maximize the impact of the interventions.</p>
<p>Risk of corruption during the implementation of the Rabla Programme</p>	<p>Programmatic/Medium</p>	<p>There are several Rabla Programmes undergoing (or closed) in the region. The Action team will inform on the experience of these programmes, lesson's learned etc to avoid the risks of corruption.</p>
<p>Difficulties in identifying the final beneficiaries of the investment support for renewables and energy efficiency leading to exclusion of the targeted vulnerable groups</p>	<p>Social/Medium</p>	<p>The programme will run an ample awareness raising and communication campaign through which the reach out to a large number of the population will be ensured. In addition, close cooperation with the Ministry of Labour and Social Protection will be established to access the vulnerable groups through social workers and other verified channels.</p>
<p>Resistance of the project partners to embark on the capacity building activities of the programme</p>	<p>Operational/Low</p>	<p>This risk regards ANRE. Identify new entry points for capacity building activities tailored to the needs of the ANRE and to be covered from flexibility mechanism (Expert on demand)</p>
<p>Under-delivery of the "Expert on Demand" Activity due to the weak capacity of the MIRD to identify the needs for support</p>	<p>Operational/Low</p>	<p>The Action will hire a chief technical advisor as part of the team who will guide the MIRD to identify the current and future needs in strengthening the energy security of the country and ensure closer alignment with the EU energy acquis.</p>
<p>Rabla Programme could potentially generate WEEE that would impact the environment</p>	<p>Environmental/Medium</p>	<p>Mapping of WEEE collectors, partnerships established between various partners to collect and dispose WEEE waste</p> <p>Ensuring the stores included in the programme have capacities of disposal or contracts with operators responsible for collection and disposal of WEEE.</p>
<p>The vouchers within the Rabla Programme will be given based on corruptible principles.</p>	<p>Operational/Low</p>	<p>The vouchers will be obtained using a special developed electronic platform. The platform will be secured against cybernetic attacks. The vouchers will include protection elements and</p>

		personal data of the beneficiary to avoid the utilization of the voucher by third person.
Low interest from sellers/importers of household equipment to register themselves as entities with extended manufacturer liability	Environmental and Operational/Medium	Working meetings with the relevant sellers and/or suppliers of home appliances to explain and to establish the benefits of the programme. The review of the legislative framework aims also to identify the recommendations in order to motivate the sellers and/or importers of the home appliances to get the status of extended manufacturer liability.
Limited time for implementation the pilot projects within the Green Home Program.	Operational/Medium	A better planning and monitoring of the activities. During the tender procedure for contractor a special attention must be paid to the technical and organisational capacities of the contractor.
The homeowner association will not manage to collect 50%+1 signatures to accept implementation of the initiative on switching from the vertical distribution heating system to the horizontal.	Operational/Medium	The Action team together with the district heating company will organise meetings with the potential beneficiaries to explain the proposed initiative and what are the benefits.
The identified medical institutions for installation of the photovoltaic systems are objects of the Moldova Energy Efficiency Project.	Operational/Low	Regular discussions with the concerned stakeholders (ministries and financing institutions) will be organised.
Escalation of the war situation in Ukraine and Russian invasion in Transnistria	Political/High	The Action is designed to ensure flexibility of expected results and will use the UNDP approach of adaptive management, through close monitoring, recording and action on the potential risks and issues.

6. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

UNDP Country Office in Moldova (UNDP CO) will be the Implementing Partner of this Action and will be responsible for producing outputs and use of resources. As such, it will bear the overall accountability for delivering the programme in accordance with its applicable regulations, rules, policies and procedures. The Action will be carried out under UNDP's Direct Implementation Modality (DIM). **The EU Delegation to Moldova and FPI.2/FPI Antenna Vienna, and by extension relevant services in DG NEAR and DG ENER, will be closely associated and consulted as regard to any major decisions taken in the framework of the Action.**

For the activities of the Action a multi-stakeholder approach will be followed to ensure wide participation and consensus. The main counterparts of the Action will be national and local stakeholders, including the Ministry of Infrastructure and Regional Development, Energy Efficiency Agency, National Agency for Energy Regulation, Energocom, Premier energy, local public authorities, academia, energy distributors, etc.



6.1. Programme Board

The Action will be managed at the highest level by the Programme Board. The Programme Board is (co) chaired by the UNDP, while its composition will be suggested by UNDP and approved during the Local Project Appraisal Committee and should be participatory and include as many relevant stakeholders as possible. At least representatives of the European Union (EU Delegation to Moldova/FPI, DG NEAR and DG ENER), UNDP, along with representative of the Ministry of

Infrastructure and Regional Development, Ministry of Labour and Social Protection, Ministry of Economy, and the private sector will be part of the Programme Board. . Civil society and Energy Treaty Secretariat participation in the board will be considered, however conflict of interest shall be avoided. The final composition of the Programme Board will be approved with the participation of the Local Project Appraisal Committee consisting of national authorities, civil society, donors and IFIs. Formal minutes shall be prepared and adopted for each meeting of the Programme Board, detailing any proposals made and decisions taken.

The Programme Board will steer and provide advice on the overall programme implementation and will meet at least twice per year in order to ensure the efficient monitoring and evaluation of project results and maintain continuous cooperation between all Actions' partners at all stages of project implementation.

The Programme Board will be responsible for approving annual work plans, assessing progress, discussing lessons learned, and taking decisions on proposals and recommendations presented by any of its members. It shall discuss and decide upon specific Action implementation issues, ensuring optimal transformation of activities into outputs through appropriate monitoring and evaluation actions pertaining to the relevance, performance, and progress towards each outcome, facilitating cooperation between relevant partners and stakeholders (public and private), and ensuring continuous and effective communication and coordination between the Action and its beneficiaries. The Programme Board will also provide a forum for sharing the key results of the Programme, as well as discussing changes or challenges in the sector and proposing solutions.

Specific Responsibilities of the Programme Board:

- Provide overall guidance and direction to the Programme, ensuring it remains within any specified constraints;
- Address issues as raised by the Programme Manager;
- Provide guidance and agree on possible countermeasures/management actions to address specific risks;
- Agree on Programme Manager's tolerances as required;
- Review the Programme Progress Report and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the Programme Annual Review Report, make recommendations for the next AWP;
- Provide ad-hoc direction and advice for exception situations when Programme manager's tolerances (agreed operational deviations for time and budget) are exceeded;
- Assess and decide on Programme changes through revisions.
- Decide on the Selection Committee composition and selection criteria. Approve the list of communities and projects to be supported.

The Programme Board is a mechanism for consultation and consensus-based steering of Action. However, in case a consensus cannot be reached, a final decision shall rest with UNDP, based on an agreement with the Delegation of the European Union to Moldova.

Selection Committee: As the Action envisages grant components for replacement of HHs equipment and investments for "greening households" the Programme Board will decide on the composition of the Selection Committee and criteria for households/buildings/beneficiaries' selection. The responsibility of the Selection Committee will be to evaluate households/buildings/beneficiaries against the selection criteria and make recommendations to the Programme Board for financing. The Selection Committee will evaluate all proposals and make recommendations to the Programme Board. The Programme Board will make the final decision.

6.2. Programme Management Structure and Programme Office costs

UNDP Moldova will be responsible for Action administration including: organizing implementation of its activities, procurement of goods and services, recruitment of project personnel and national and international consultants, connecting to national and international expertise and knowledge networks etc., in order to ensure the timely and expedient implementation of Actions activities, including the provision of continuous feedback and information sharing among stakeholders.

The management of the Action will be performed by a dedicated Programme Manager who will be assisted by programme implementation team. The Programme Manager will be responsible for the management and coordination of all Programme Activities and will be charged 100% to the programme budget. The tasks listed in the Description of the Action, undertaken by staff assigned to the programme team are directly attributable to the implementation of the Action. The Programme team will comprise of full-time dedicated staff and part-time specialized staff to technically contribute to various Action components and activities. The part-time specialized staff will be charged through direct project costs for the time spent directly attributable to the implementation of the Action.

Besides the **Programme Manager**, the UNDP programme team would include the following staff:

- a) **Communication Officer**, responsible for ensuring the fulfilment of the communication and visibility activities related to the Action and for preparation, implementation and oversight of the Communication and Visibility plan of the Action and assuring that all activities including the outreach and awareness-raising activities adhere to and are fully aligned with the visibility needs and interests of the EU. The Communication officer will be charged 100% to the Action budget.
- b) **Finance Coordinator**, responsible for performing financial duties related to the implementation of the Action activities. The Finance Coordinator will be charged 100% to the Action budget
- c) **Procurement Coordinator**, responsible for performing procurement and contracting duties related to the implementation of the Action activities. The Procurement and Contracts Coordinator will be charged 100% to the Action budget
- d) **Procurement Assistant** responsible for assisting procurement and contracting duties related to the implementation of the Action activities. The Procurement Assistant will be charged 100% to the Action budget.
- e) **Finance and Administrative Assistant**, responsible for assisting in organization of financial and administrative processes for Action needs and providing support to office maintenance. The Finance and Admin Assistant will be charged 100% to the Action budget.

Programme Assurance is a key element of the PRINCE2 project management method, upon which the Programme Management Arrangements are based. 'Assurance' is essentially an independent audit function, whereby the Programme Board can monitor progress against agreed work plans.

Specific 'Assurance' tasks are to:

- Ensure that risks and issues are properly managed and monitored, and that the logs are regularly updated;
- Ensure that Programme Progress/Financial Reports are prepared and submitted on time, and according to standards in terms of format and content quality and submitted to the

Programme Board. The format and the content of the reports shall be in line with the stipulations of General Conditions of the Agreement.

Quality assurance is required for all UNDP programme and projects, regardless of their budget, size, location, duration, characteristics, context and circumstances. The UNDP Internal Control Framework (ICF) covers key control factors such as planning, monitoring, communication, policies, procedures, segregation of duties, individual authorities and accountabilities that combined, inter alia:

- Safeguard assets from inappropriate use and loss from fraud and errors,
- Help ensure the quality of internal and external reporting, through the maintenance of proper records and information flow; and,
- Facilitate compliance with applicable laws, regulations and policies.

Segregation of duties and control ensure that risks are mitigated and managed and provides clear accountability and appropriate management arrangements.

Services provided by the UNDP Moldova Country Office (CO) staff for the implementation of the Action include specific tasks related to activities under the Action that require higher level of quality assurance, monitoring and control in processing for finance, procurement, human resources, administration, travel, assets management etc.

In addition to the above-mentioned Programme team-, the following staff from the UNDP CO is envisaged to provide its support, to ensure the quality assurance and enable implementation of Action activities as reflected in Heading 1 of the Budget of the Action:

- **Portfolio Manager** (Environment, Climate and Energy Specialist) is responsible for quality assurance of the project implementation and will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 25% of the working time.
- **Policy Specialist** is responsible for quality assurance of the project implementation related to social component and will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 20% of the working time.
- **Programme Associate** ensures Action support and quality assurance for reporting and monitoring and will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 20% of the working time.
- **Procurement Associate**, responsible for providing support in identification of procurement modalities, facilitating quality, transparent, effective and fast procurement processes; support the Action in the launch and publicity of procurement processes; advising in Action procurement/tender evaluation processes; support in negotiations with potential contractors (as needed); assisting in the process of contracting and monitoring of contracts. The Procurement Analyst will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 21 % of the working time.
- **Human Resources Associate**, responsible for providing support, advising and verifying human resources processes for the needs of the Action, including staff selection and recruitment processes, staff human resources benefits administration and management, recurrent personnel management services: staff payroll and banking administration and management etc. The Human Resources Associate will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 15 % of the working time.
- **Finance Associate**, responsible for providing support related to accounting matters, including creation and application of deposits, management of bank accounts and of bank cards issues for the

Action personnel, verifying and validate the payroll results for the Action staff, time payment of salaries, processing of payments (disbursements), travel management etc. The Finance Associate will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 18% of the working time.

- **Communication Analyst**, responsible for providing support, advising and verifying communication processes for the needs of the Action. He/She is responsible for the clearance of the external communication of the Action, to ensure compliance with Communications and visibility plan of the Action and UNDP rules and regulations. The Communication Analyst will be charged through direct project costs for the time spent directly attributable to the implementation of the Action, not exceeding 5% of the working time.

Expertise of international and national consultants (short and long term) will be sought to advice and support the implementation, as required.

During the Action implementation, synergies and linkages with other ongoing projects, in particular in the areas of green urban development, renewables and energy efficiency, regional development and green economy implemented by UNDP will be maintained and strengthened.

The programme management team will ensure results-based project management and successful implementation of the Action within the 18 months programme period, close monitoring and evaluation of Action progress, observance of procedures, transparency and efficient use of funds, quality of works, and involvement of local and regional stakeholders and beneficiary communities in the decision-making processes.

Other programme office costs that will be incurred as part of the Direct Management and Implementation of the Programme and that can be traced and attributed directly to the management of the programme's activities, are foreseen as follows:

- Subsistence costs for missions/travel for staff and other persons directly assigned to the operations of the programme office, are included in Heading 1 of Annex III- Budget of the Action (Annex III);
- Travel costs for staff and other persons (international and local) directly assigned to the operations of the programme office, are included in Heading 2 of Annex III- Budget of the Action (Annex III). The local transportation costs for programme staff and experts to/from regions (rent of car/or bus);;
- UNDP costs of IT equipment, computers, copying, scanning and printing equipment, network equipment, IT spare parts and supplies, office furniture, other equipment, etc., composing the UNDP programme office are envisaged in Heading 3 of the Budget (Annex III);
- Costs for the UNDP office (in Chisinau) are reflected in Heading 4 of the Budget of the Action, including , office rent, consumables - office supplies, other services (public cloud computing subscription, Zoom license, Docusign services, tel/fax, internet, electricity/ maintenance/repairs etc.);

Cost for Office is based on:

1. *The average cost for the office space options available in the center of Chisinau city, based on market research done by other EU projects this year. A new office space will be rented for the team that will be recruited to implement the programme planned activities (for 10 full time staff and part-time consultants- office space of approx. 150 sqm).*

2. *Monthly rate for stationery and office supplies is calculated based on average consumption estimations from other projects and based on market prices.*
 3. *Monthly rate is calculated based on average consumption estimations from other projects and based on market prices and increase of the gas/electricity prices.*
 4. *Annual fee for corporate services as Public Cloud Computing (PCC) subscription fee, ZOOM license, DocuSign services fee per envelope.*
- Financial transactions and financial statements might be subject to the internal and external auditing procedures laid down in the Financial Regulations, Rules and Directives of the UNDP and the indicative budget allocated for this audit is identified in Heading 5; also in Heading 5 of the Budget are envisaged: publications costs (procurement of services of design, editing and printing), evaluation costs; translation and interpretation costs, costs of conferences/seminars; visibility actions, miscellaneous;

Audits of the financial transactions and financial statements will be conducted in accordance with UNDP's audit policy to manage financial risk. The Office of Audit and Investigations has established a risk-based and structured approach for selecting and auditing specific DIM projects in order to provide UNDP stakeholders with an adequate level of assurance on the proper management of DIM projects.

6.3. Communication and Visibility

All programme activities will adhere to the European Union's requirements for visibility on EU funded activities, as described in the FAFA, and by referring to the Joint Visibility Guidelines for EC UN Actions in the field (see http://ec.europa.eu/comm/europeaid/visibility/index_en.htm for guidance). The communication and visibility strategy is described in Annex F. Communication and Visibility Plan to the EU-UNDP Contribution Agreement

7. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the Action will be monitored through the following monitoring and evaluation plan. The plan will be updated upon Action inception, if needed, during the implementation phase, through the approval of the Programme Board. As provided in the General Conditions, representative of the European Commission shall be invited to participate in the main monitoring and evaluation mission related to the performance of the Action. The results of such mission shall be reported to the European Commission.

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action
Track results progress	Progress data, including sex-disaggregated data, against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards and the Gender Analysis. The project audit will be conducted in compliance with the UNDP's audit policy to manage financial risks.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.
Learn	Knowledge, good practices and lessons, including gender related, will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	Annually	Relevant lessons are captured by the project team and used to inform management decisions.
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards, including gender equity and equality standards, to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	Semi-Annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.
Project summary	A progress summary will be presented to the Programme Board and key stakeholders,	Annually, and at the end of the	...

	consisting of progress data showing the results achieved against pre-defined targets at the output level, the annual project quality rating summary, an updated risk log with mitigation measures, and any evaluation or review reports prepared over the period.	project (final report)	
Programme Board	The project's governance mechanism (i.e., Programme Board), which shall be gender balanced, will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Programme Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	Twice per year	Any quality concerns or slower than expected progress should be discussed by the Programme Board and management actions agreed to address the issues identified.

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

Within the annual cycle:

- Based on the initial risk analysis submitted, a risk log will be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Summary shall be submitted by the Project Manager to the Programme Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- A project lesson-learned log shall be activated and regularly updated to ensure ongoing learning and adaptation within the organisation, and to facilitate the preparation of the Lessons-learned Report at the end of the project.
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management achievements.

Annually:

- Annual Project Summary Report. An Annual Project Summary Progress Report shall be prepared by the Programme Manager and shared with the Programme Board. As minimum requirement, the Annual Progress Report shall cover the whole year with updated information as well as a summary of results achieved against pre-defined annual targets at the output level.
-

Evaluation

A final Evaluation will be commissioned by the UNDP at the end of Action implementation. This will focus on relevance, impact, sustainability, effectiveness and efficiency, non-contentiousness and appropriateness of delivered activities. In addition to that, evaluation will be conducted for the sub-Actions implemented. Lessons learned and the experience gained throughout the implementation of the programme will be disseminated and shared as widely as possible. The preparation of the Terms of Reference for the Action evaluation will be agreed with the FPI Action Manager in line with article 10 of the General Conditions (Annex 2 to the EU-UNDP Contribution Agreement).

Financial transactions and financial statements shall be subject to the internal and external auditing procedures laid down in the Financial Regulations, Rules and directives of UNDP (in accordance with the Financial and Administrative Framework Agreement between the EU-UN).

8. REPORTING

Narrative and financial reports will be provided based on the art.3 of the General Conditions. Every report will provide a complete account of all aspects of implementation for the period covered, while the level of detail will match the one from the DoA and the Budget of the Action.

Additionally, progress updates will be presented as part of the Programme Board meetings, using the update of the Work Plan as per information recorded in Atlas.

In addition to the above-mentioned reports, UNDP will ensure that progress and situation reports, publications, press releases and updates, relevant to the Action, are communicated to the FPI as and when they are issued.

9. ANNEXES TO THE DESCRIPTION OF THE ACTION

9.1. Annex A: LOGFRAME

For more information please use Excel file.

9.2. Annex B: EU Engagement and International Assistance

EU Projects

EU4Climate Project (2018-2022)¹² is helping governments of EaP countries to take action against climate change. Along with other results, project has supported Moldova's Government in updating its NDC under the Paris Agreement and establishing the GHG emission reduction targets that country is assuming to achieve by 2030, including those for the energy sector. The proposed Action will build on relevant analytical work for energy sector conducted within the EU4Climate and further contribute to alignment of climate and energy strategic frameworks. The Action will also advance implementation of Moldova's energy sector's mitigation commitments, through a series of investment actions in energy efficiency and renewable energy use.

Promoting the Clean Energy Transition in EaP countries: EU4Energy Phase II - Component 1 (2021-2024)¹³: supports the Governments of Georgia, Moldova and Ukraine in improvement of their energy policies and institutional capacities to foster the clean energy transition and decarbonization. In more concrete terms the project is assisting countries in alignment of legal frameworks with the EU energy acquis and Energy Community Treaty commitments. The proposed Action will partner with the Chisinau Office of the EU4Energy Governance Project Phase II (under establishment) to ensure close coordination and synergies with EU4Energy Component 1: Supporting transposition and implementation of energy acquis and Component 3: Capacity building.

The EU Delegation's High Level Advisory Mission (2019-2023)¹⁴: is supporting the Government of Moldova in advancing the reform agenda in various sectors, including the energy, environment, labour, economy, regional and rural development, etc. A close cooperation is envisaged during the implementation of the Action with the relevant sectoral Advisors (energy, social, etc.) to ensure close coordination with all EU funded initiatives in Moldova.

The Action will seek consistency with other energy initiatives, funded and implemented by European and international financial institutions. Referring to the **European Investment Bank** projects with focus on energy efficiency, the Action will synergize with the ongoing **Energy Efficiency Investment Programme (2022-2025)**¹⁵ and its selected list of buildings to benefit from energy efficiency investments.

Other donor-funded projects:

¹² <https://eu4climate.eu/>

¹³ <https://www.energy-community.org/regionalinitiatives/EU4EnergyII.html>

¹⁴ <https://eu-advisers.md/>

¹⁵ <https://www.eib.org/en/projects/pipelines/all/20170017>

Second District Heating Efficiency Improvement Project/World Bank (2020-2025)¹⁶: The Project objective is to increase the efficiency of the District Heating system in Chisinau. The synergy will be ensured on support to optimization of heating modality in residential buildings through the FPI investment component, but also through Expert on demand support facility (e.g. to conduct assessment on Renewable energy opportunity in residential building stock in Chisinau) .

Advancing Moldova's National Climate Change Adaptation Planning (phase 2) – NAP2/GCF/UNDP (2020-2025)¹⁷: The Objective of the project is to support the Government of Moldova in advancing the second cycle of its iterative national climate adaptation planning process, including of energy sector.

Moldova Sustainable Green Cities/GEF/UNDP (2018-2023)¹⁸: The Project aims to catalyse investments in low carbon green development in Chisinau and other urban centres in Moldova based on integrated urban planning approach by encouraging innovation, participatory planning, and partnerships between a variety of public and private sector entities. The project supported establishment of the Green City Lab as leading knowledge management and networking platform, and a source of innovations and expertise on low carbon and green urban development. The project is piloting innovative solutions in the area of energy efficiency and renewable energy use (residential and public sectors), urban mobility and planning, as well as waste management, which are leading to GHG emission reduction. The Action will build on positive results of the Green City (e.g. EMIS, EPC on district heating, ESCO mechanism, etc.) .

Project on defining and measuring energy poverty in Moldova/UNDP (2021-2022): The Project aims to assess the potential impact of the energy crisis on households and particularly vulnerable groups of population, by use of existing and new evidence and following a methodological approach to be agreed with UNDP and the Government.

UNDP Digital Transformation Innovation Challenges¹⁹: Given the fact that the new Government of the Republic of Moldova, through its Programme of actions, made a bold decision to accelerate digital transformation of the nation, UNDP see this Action to be digitally driven.

UNDP will propose a range of digital and sustainable approaches and solutions to enhance more efficient energy consumption at large. Solutions will be generated by the Moldova ICT companies through UNDP Digital Transformation Innovation Challenges with a prime focus on Energy Sector. Additionally, UNDP is proposing to include among Energy Security areas one specific activity to cover the Energy Cyber Security aspect to make the Energy Sector of Moldova less vulnerable to potential cyber-attacks that are widely used in the region, especially in Ukraine.

¹⁶ <https://projects.worldbank.org/en/projects-operations/project-detail/P172668>

¹⁷ <https://www.md.undp.org/content/moldova/en/home/projects/climate-change-adaptation-2.html>

¹⁸ <https://greencity.md/en/>

¹⁹ <https://www.md.undp.org/content/moldova/en/home/projects/digital-moldova.html>

Considering the gender gap in digital transformation, in Moldova, for instance, a study found that more than 30 percent of surveyed young women who reported liking computer science in school did not consider ICT among the choices for a future career because “it is not a domain for girls”.²⁸ Limited exposure to women role models, including women teachers, also plays a key role in discouraging girls from choosing STEM programmes, while their interest in these subjects and their self-confidence increase when exposed to positive role models.²⁹ Social norms and expectations on women’s role within the family and as primary caregivers, together with a masculine corporate culture, especially in the tech sector,³⁰ are also major barriers to women’s participation in the labour force, and hamper the employment and career advancement opportunities offered to them by the digital transformation.²⁰

Renewable Energy Auctions Implementation support/EBRD (2019-2023)²¹: the initiative consists of a comprehensive package of technical assistance to support Moldovan authorities, in particular Ministry of Infrastructure and Regional Development(MoIRD) , in developing and strengthening the overall regulatory and institutional framework necessary for the successful implementation of the competitive procurement of renewable energy and implementation of RE auctions. Proposed Action will coordinate and complement regulatory developments and capacity building interventions of the EBRD project by capacitating institutions to running tenders for big Renewable energy capacities.

Review of the Natural Gas Law/ EBRD: the initiative aims to support MoIRD to review and amend the Natural Gas Law and relevant regulatory framework, thus reflecting on the EU Third Energy Package. Proposed Action will build its gas related interventions based on the latest status with amendments to the Natural Gas Law.

The achievements of the Corporate Governance Action Plan's implementation for Energocom /EBRD (2020-2022) and Moldelectrica Transmission Rehabilitation Project/EBRD/EIB/NIF (2012-2022)²²: will be complemented through “Capacity building and/or targeted technical assistance for State Owned Companies in the energy sector” activity of the proposed intervention.

Chisinau City Framework: Chisinau Buildings/EBRD/EIB/E5P (2016-2023)²³: the initiative supports the City of Chisinau in implementing a rehabilitation programme involving energy efficiency measures in public buildings, such as schools, kindergartens and hospitals. The Project also includes some individual energy efficiency measures with high economic return targeting lighting systems, heat distribution systems and the integration of renewable energy sources. The pilot and investment

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https://www.kg.undp.org/content/kyrgyzstan/en/home/library/womens_empowerment/gender-equality-in-digitalization.html

²¹ <https://www.ebrd.com/work-with-us/projects/tcpsd/support-for-the-implementation-of-renewable-energy-auctions-in-moldova.html>

²² <https://www.ebrd.com/work-with-us/projects/psd/moldelectrica-transmission-rehabilitation-loan.html>

²³ <https://www.ebrd.com/work-with-us/projects/psd/green-city-framework-chisinau-buildings.html>

component of the Action will consider lessons learned and already achieved results of the EBRD/EIB/E5P intervention.

The above mentioned EBRD/EIB/WB interventions, as well as “Balti District Heating Phase 2”/EBRD (2021-2024)²⁴, “Moldova Buildings Energy Efficiency Programme”/EBRD/EIB/NIP (2021-2027), “Green Economy Financing Facility Moldova”/EBRD/GCF (2020-2024)²⁵, “Credit project: EU4Business”/EBRD²⁶ (launched in 2017), “Global Environment Facility Small Grants Programme”/GEF/UNDP (2012-2024)²⁷, “Resilient Communities through women empowerment: UNDP/Sweden” (2020-2023)²⁸ and other energy related projects can be complemented by the proposed Action through its piloting component.

²⁴<https://www.ebrd.com/sites/Satellite?c=Content&cid=1395303069704&d=Touch&pagename=EBRD%2FContent%2FContentLayout>

²⁵ <https://ebrdgeff.com/moldova/>

²⁶ <https://www.eu4business-ebrdcreditline.md/>

²⁷ <https://www.md.undp.org/content/moldova/en/home/projects/the-gef-small-grants-programme.html>

²⁸ <https://www.md.undp.org/content/moldova/en/home/projects/sustainable-resilient-communities-through-women-empowerment.html>

9.3. Annex C: Theory of Change Diagram

Project impact:	Enhance the country's energy security and resilience to current and future shocks and prompt				
Project Outcome	National energy markets are enabled to become functional, transparent, and ready to integrate in European regional markets, while inclusive way				
Project Objective	Support the Government of Moldova to advance necessary transformative policy, legal and regulatory frameworks, strengthen institutions, best energy saving practices and technologies by citizens and public institutions, while tackling the current				
Project outputs/components	Improving policies and regulatory frameworks to enable energy security, as well as energy efficient and clean energy transition of Moldova in an inclusive way	Enhancing institutional capacities and coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis.		Awareness raising, information communication to foster public transition, increased energy address disinformation	
Project activities/results	<p>Result 1. National policy framework and long-term planning in the energy sector is improved and aligned to climate commitments</p> <p>Result 2. National regulatory framework (both primary and secondary) is improved in line with Moldovan energy commitments and is ensuring that national authorities are better prepared and can respond to emergency situations in energy sector and to the needs of the most vulnerable energy users</p>	<p>Result 1. Key energy players (central and local authorities, regulators, energy producers and suppliers, training facilities, etc.) have increased expertise, technological, institutional and enforcement capacities (business processes, functions, financial and coordination mechanisms) to prevent major risks in current and potential future energy crises</p> <p>Result 2. National capacities to organize transparent and non-discriminatory procurement procedures in the energy field are strengthened</p> <p>Result 3: Government capacities to monitor and provide targeted response to energy poverty is increased through institutionalization of new mechanism</p>		<p>Result 1. Facilitate citizen's formulation of energy policies increased transparency of decision</p> <p>Result 2. Advocate for renewable solutions to alleviate energy nationwide energy transition</p> <p>Result 3. National nudging program successfully implemented to increase energy consumption</p> <p>Result 4. Project visibility and reach</p>	
Assumptions	<ul style="list-style-type: none"> - The key stakeholders embark on the reform of the energy sector; - The geopolitical situation in the region is stabilized and Moldovan institutions are continuing to function normally, Moldova the country ; - There is good collaboration and cooperation between relevant national actors and stakeholders in the energy area, including - Citizens are willing to and can get involved in the nudging and demonstration projects; - The Government demonstrates a strong political will to prioritize the energy reforms and ownership over project results; - The population adopt and implement the energy saving technologies and practices in their households; - The collaboration with IFIs and other EU energy actors (national and regional) is successful, a coordination mechanism is working - Energy non-efficient electrical and electronic waste is collected and recycled according to the provisions of the environment - Training programs are of interest and have high attendance records to extend the pool of experts; - Citizens are actively participating in decision making process in energy area. - The Government sets up public financial mechanisms to advance energy efficiency and renewable energy use. 				
Barriers	Limited energy supply sources and monopoly for gas procurement and supply	<ul style="list-style-type: none"> • Limited expertise in the energy public, energy supply companies, and high turn-over of staff • Limited capacities in the specialized central institutions and of the relevant actors on the local energy market 	Insufficient coordination between key stakeholders, initiatives and institutions in the energy sector and lack of institutionalized coordination mechanism	Enforcement of energy related legislation with regards to energy market, renewables, etc. is stagnating due to lack of implementation mechanisms	Poor awareness and demonstration energy saving technologies practices and among the public and scattered energy information due to inefficient functioning of the communication platforms

9.4. Annex D: Joint action plan for implementation of the action Text.

Addressing the impacts of energy crisis and initiating solutions toward energy security and addressing energy poverty Work Plan			Half-year 1						Half-year 2					
Component	Expected Result	Activity	1	2	3	4	5	6	7	8	9	10	11	
1.Improving policies and regulatory frameworks to enable energy security, as well as energy efficient and clean energy transition of Moldova in an inclusive way	Result 1.1 National policy framework and long-term planning in the energy sector is improved and aligned to climate commitments	Action 1.1.1: Support MoIRD in finalization of the National Energy and Climate Plan to ensure transposition of EU Regulation no. 2018/1999 and its approval by the Government, including the public consultation procedures and finalization of the modelling exercise for integrated energy and climate planning.												
		Action 1.2.1: Support MoIRD in updating the Energy Strategy of Republic of Moldova by 2030, and its approval by the Government, including the public consultation procedures												
	Result 1.2. National regulatory framework (both primary and secondary) is improved in line with Moldovan energy commitments and is ensuring that national authorities are better prepared and can respond to emergency situations in energy sector and to the needs of most vulnerable energy users	Action 1.2.1: Provide expertise on implementation and monitoring of fulfilling the gas stockholding obligations, based on best practices of EU relevant countries.												
		Action 1.2.2: Provide expertise on transposition (of the EU Directive no. 2009/119/EC), implementation and monitoring of fulfilling the oil stockholding obligations, based on best practices of EU relevant countries.												
		Action 1.2.3: Support to MoIRD to advance measures to safeguard the security of gas supply and interinstitutional coordination during emergency situation, including regulating the management of emergency situations in the natural gas sector as well as to improve the legislation regulating the management of emergency situations in the natural gas sector and to transpose the EU Regulation no. 2017/1938 of 25 October 2017.												
Action 1.2.4: Support MoIRD to advance preparedness and reaction measures for emergency situations on the electricity market, including regulating the management of emergency situations in the electricity sector, as well as to improve the legislation regulating the management of emergency situations in the electricity sector and to transpose the EU Regulation no. 2019/941 of 5 June 2019.														

		Action 1.2.5 Improve definition and measuring of "energy vulnerable consumer"																			
		Action 1.2.6. Ad-hoc support is provided to national authorities for improvement and efficient implementation of the energy legal framework based on Expert on Demand facility																			
2.Enhancing institutional capacities and coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis.	Result 2.1. Key energy players (central and local authorities, regulators, energy producers and suppliers, training facilities, etc.) have increased expertise, technological, institutional and enforcement capacities (business processes, functions, financial and coordination mechanisms) to prevent major risks in current and potential future energy crises	Action 2.1.1: Conduct an assessment of the existing institutional and functional development challenges and opportunities in the energy sector. Prepare the packages for strengthening the MoIDR's Energy Department, Energy Efficiency Agency and Regional and Rural Development Fund (this would include functional reviews, update of institution's regulations, business processes and KPIs for the staff, etc.)																			
		Action 2.1.2: Design and support the main public financing (and co-financing) tools for energy efficiency & renewable projects																			
		Action 2.1.3: Support the design and setup of regular co-ordination mechanism among the key stakeholders in the energy area, under the leadership of EU and of the MD Government																			
		Action 2.1.4: Develop a capacity building programme on specific needs/topics of MoIDR, AEE, ANRE, ACPMS, LPAs, CFCEEC/UTM, energy producers and suppliers, as well as for various target groups (energy auditors, energy manager, inspectors, etc.)																			
		Action 2.1.5: Support the implementation of National capacity building programmes in energy sector (trainings, study visits, etc.)																			
		Action 2.1.6: Support energy regulators, energy suppliers, etc. to forecasting and monitoring wind and solar production																			
		Action 2.1.7: Support the training facilities with technical equipment for education and training needs																			
		Action 2.1.8 Ad-hoc support is provided to national authorities for capacity building needs based on Expert on Demand facility																			
	Result 2.2. National capacities to organize transparent and non-discriminatory procurement procedures in the energy field are strengthened	Action 2.2.1. Support to running tenders for big Renewable energy capacities, including examining the opportunity of allocating RES capacities for IFC's "Scaling up Renewable Energy" Program;																			

		<p>Action 2.2.2. Developing the functioning procedures (to be approved by ANRE) for buying renewable electricity at different costs, aggregation and reselling to suppliers (including dedicated software and hardware);</p>																		
		<p>Action 2.2.3. Support of the LPAs, companies to ensure transparent procurement procedures applicable in energy sector: support in adjusting suppliers' companies' internal procedures, designing energy procurement process and technical support in organizing tenders in line with the new Law on Electricity (after being voted in Parliament).</p>																		
	<p>Result 2.3. Government capacities to monitor and provide targeted response to energy poverty is increased through institutionalization of new mechanism</p>	<p>Action 2.3.1 Support development of a process to monitor energy poverty and increase institutional capacity to maintain and monitor the mitigation mechanism.</p>																		
<p>3. Awareness raising, information and communication to foster public support for energy transition, increased energy efficiency and to address disinformation</p>	<p>Result 3.1. Facilitate citizen's engagement in formulation of energy policies and contribute to increased transparency of decision-making process</p>	<p>Action 3.1.1. Promote mechanisms to involve citizens in the decision-making process in the energy sector (consultations, etc.). Propose new tools to engage people (surveys, sensemaking, focus groups).</p>																		
		<p>Action 3.1.2. Debunk myths from the energy sector and broadcast them on high profile media and by engaging influencers.</p>																		
		<p>Action 3.1.3. Inform the population on the tariff forming components, procedures applied, and contractual agreements for energy supply.</p>																		
		<p>Action 3.1.4. Awareness raising and communication measures defined and mainstreamed into policies and legislation</p>																		
	<p>Result 3.2. Advocate for renewables and practical solutions to alleviate energy poverty and nationwide energy transition</p>	<p>Action 3.2.1. Support EEA, MoIRD to upgrade consumer information and empower culture, platforms, and tools to address the EE&RES matters to the general population.</p>																		
		<p>Action 3.2.2. Revamp www.aee.md and other relevant institutional websites as a communication platform/info point on the benefits of energy efficiency and the best energy-saving instruments.</p>																		
		<p>Action 3.2.3. Media and general population awareness on energy-efficient consumption and expanded use of renewables.</p>																		
	<p>Result 3.3. National nudging program for household successfully implemented to improve and reduce energy consumption</p>	<p>Action 3.2.1. Implementation of the nudging program</p>																		

	Result 3.4. Project visibility and results promotion	Action 3.4.1. Implementation of project's communication activities with a specific focus on the target audience																		
		Action 3.4.2. Contribute to a better quality of media reporting on the EE and RES subjects and initiatives.																		
		Action 3.4.3. Raise awareness on the renewables' benefits and EU's contribution to advance renewables and implement practical solutions to tackle energy poverty.																		
4. Demonstration/pilots of energy efficiency and renewable measures to increase energy affordability and development of sustainable financing mechanisms with primary focus on vulnerable households and public sector	Result 4.1. National Programs to adopt energy saving practices and technologies, including in vulnerable HHs are launched and piloted	Action 4.1.1 Design and launching of a large-scale vouchers programme for household appliances dedicated to vulnerable energy consumers																		
		Action 4.1.2 Design and pilot of the Green Home Grant Programme																		
	Result 4.2. Enhanced adoption of energy efficiency measures in apartment buildings	Action 4.2.1 Refurbishment of the distribution heating system form the multi-story residential buildings connected to CHP in the city where it is operational.																		
		Result 4.3. Increased domestic power generation from renewable energy sources for needs of public buildings	Action 4.3.1. Promotion the use of renewable energy within medical institutions.																	
	Action 4.3.2 Assessing the feasibility of adoption of integrated renewable solutions and piloting their implementation																			

