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THIS ACTION IS FUNDED BY THE EUROPEAN UNION

ANNEX 2

of the Commission Decision on the financing of the Annual Action Programme 2019 in favour of the Republic of Zambia

Action Document for 'Zambia Energy Efficiency and Sustainable Transformation programme (ZE_2ST)'

1. Title/basic act/ CRIS number	'Zambia Energy Efficiency and Sustainable Transformation programme (ZE_2ST)' CRIS number: ZM/FED/040-803 financed under the 11th European Development Fund (EDF)	
2. Zone benefiting from the action/ location	Eastern and Southern Africa and the Indian Ocean: Zambia The action shall be carried out at the following location: Zambia	
3. Programming document	National Indicative Programme (NIP) 2014 – 2020 for Zambia	
4. Sustainable Development Goals (SDGs)	Main SDGs: 7 - Affordable and clean energy; 13 - Climate action Other significant SDGs: 5 – gender equality; 9 – Industry, Innovation and Infrastructure; 11 – sustainable cities and communities	
5. Sector of intervention/ thematic area	Energy: Improved access to clean, reliable and affordable energy	DEV. Assistance: YES[1]
6. Amounts concerned	Total estimated cost: EUR 35 000 000 Total amount of EDF contribution: EUR 25 000 000 This action is co-financed in joint co-financing by: - the private sector for an amount of EUR 10 000 000.	
7. Aid modality and implementation modalities	Project Modality **Direct management** through: Procurement **Indirect management** with the Republic of Zambia This contribution to the Regional Blending Platform shall be implemented in indirect management by the entities indicated in the appendix to this action document, in accordance with the Regional Blending Platform's award procedure.	

[1] Official Development Assistance is administered with the promotion of the economic development and welfare of developing countries as its main objective.

8 a) DAC code	23183 - Energy conservation and demand-side efficiency – 100%			
b) Main Delivery Channel	Recipient Government - 12000 Other multilateral institution - 47000			
9. Markers (from CRIS DAC form)	**General policy objective**	**Not targeted**	**Significant objective**	**Principal objective**
	Participation development/good governance	☐	■	☐
	Aid to environment	☐	☐	■
	Gender equality and Women's and Girl's Empowerment	☐	■	☐
	Trade Development	■	☐	☐
	Reproductive, Maternal, New born and child health	■	☐	☐
	RIO Convention markers	**Not targeted**	**Significant objective**	**Principal objective**
	Biological diversity	■	☐	☐
	Combat desertification	■	☐	☐
	Climate change mitigation	☐	☐	■
	Climate change adaptation	■	☐	☐
10. Global Public Goods and Challenges (GPGC) thematic flagships	Global Climate Change Alliance Switch to Green Initiative			

SUMMARY

ZE_2ST aims at mobilising energy savings, energy services and demand side management to make energy efficiency count in Zambia through policy work, promotion of sustainable investments and job creation, and strengthening state, societal and community resilience. This is in line with the 2030 Agenda on Sustainable Development (Sustainable Development Goals - SDGs 7 and 13), Sustainable Energy for All objectives and the Paris Climate Change Agreement, development policy engagement with Zambia, based on the new European Consensus for Development[2].

On the power demand side, seed money for early stage energy efficiency market development will help the Government of Zambia enacting policy measures and non-market instruments. Support to businesses and social services (hospitals, schools, water utilities, etc.) will be provided in areas such as power factor correction and net metering; support to social services and households will promote the use of energy efficient lighting and solar water heaters. The promotion of energy efficiency in buildings will also be targeted. On the power supply side, the focus of the action will be on piloting improvements in the power quality management and the introduction of smart metering in the Lusaka Central region.

[2] OJ C 210 of 30.6.2017.

1 CONTEXT ANALYSIS

1.1 Context Description

Zambia is a peaceful country, with a liberal market system and a status of lower-middle income since 2011. At the same time, Zambia is still amongst the five countries with the highest income inequality in the world and shows a negative macroeconomic outlook.

Zambia is one of the most urbanised countries in Sub-Saharan Africa, with 44% of the population in a few urban areas. Both population and urbanisation rate, and with it, demand for basic rights and commodities such as housing, water and electricity, are growing at a fast pace.

In the electricity sector, Zambia shows some similarities with least developed countries, including a worrying financial situation of the state utility; a low and non-cost reflective electricity tariff structure[3]; a very low resource diversification for modern energy services, heavily dependent on imports of oil products and on hydropower[4] - and, therefore, on weather patterns; high technical and commercial losses.

Government's plans are to meet the rising electricity demand through additional hydropower installations or expansion of existing hydropower installations, addition of solar photovoltaic (PV) farms, wind and geothermal power stations[5]. Energy efficiency has the potential of scaling down capital investment needed, however, so far the energy efficiency market has remained small[6].

1.2 Policy Framework (Global, EU)

At global level, this action contributes mainly to the achievement of the Sustainable Development Goals (SDGs) 7 on affordable and clean energy and 13 on climate action. Indirectly, it also contributes to SDG 5 on gender equality, 9 on industry, innovation and infrastructure and 11 on sustainable cities and communities. The action contributes to the Sustainable Energy for All Goal of doubling the global rate of improvement in energy efficiency.

At EU level, this action is fully in line with the Planet and Prosperity priorities of the new *EU Consensus on Development* (2017). The latter stipulates that the EU shall increase cooperation with all relevant parties, including the private sector, on energy demand management, energy efficiency and clean technology development and transfer. Cooperation with the private sector also contributes to the achievement of the objectives of the *New Africa-Europe Alliance for Sustainable Investment and Jobs*[7]. The action also provides for links with the Gender Action Plan (2016-2020)[8].

At the level of development policy engagement with Zambia, energy is a focal sector in the National Indicative Programme (NIP) of the 11th European Development Fund (EDF) and this action will push climate related spending well beyond the European Commission-wide 20% target for the period 2014-2020, for Zambia.

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[3] With a subsidy of 7.1% of the GDP, Zambia scores 111th out of 115 countries in energy subsidies in percentage of GDP in the Energy Transition Index 2019 of the World Economic Forum (WEF, 2019).

[4] Hydropower represents 85% of the generation capacity of the country (Energy Regulation Board, 2017).

[5] Hydropower production is increasingly threatened by prolonged droughts and reduced water flows.

[6] With a Regulatory Indicators for Sustainable Energy (RISE) energy efficiency score of 16.1, Zambia ranks 94th out of 115 countries in terms of regulation and political commitment on energy efficiency (WEF, 2019).

[7] COM(2018) 643 final of 12.9.2018.

[8] SWD(2015)182 final of 21.9.2015.

1.3 Public Policy Analysis of the partner country/region

At global level, Zambia ratified the Paris Climate Agreement and energy efficiency is a priority area in the Nationally Determined Contribution (NDC). The targeted CO_2 emission reduction is conditional to securing international support in form of finance, technology and capacity building. These three elements come out strong also in the policy measures defined under the National Policy on Climate Change (2016).

At Southern African Development Community (SADC) level, Zambia committed to migrate to electricity cost reflective tariffs by 31 December 2019. This represents the single most important market-based instrument for customers to move towards low-carbon investments.

At country level, the 7th National Development Plan (2017-2021) recognises that a transition to more sustainable energy systems and services will enhance the socioeconomic resilience of the country to the above mentioned migration to cost-reflective electricity tariffs, and to the uncertainties related to fluctuating fossil fuel prices and changing hydrological patterns.

Zambia started supporting end use energy efficiency measures in a number of areas including:

- Banning importation of incandescent bulbs, enacted as of January 2017, while at the same time distributing 3 million energy efficiency bulbs. Tax incentives for LED lights have been introduced since September 2018.
- Establishing the objective of achieving 50% buildings having solar water heaters by 2020. National standards for water heaters are being finalised.
- Introducing within the 2016 Distribution Code penalties to force power factor correction. Their enactment is still to be implemented though.
- Elimination of subsidies on petroleum products, removing a barrier to low-carbon investments.

Work on developing a comprehensive national energy efficiency strategy and energy efficiency action plan (EEAP 2020-2022) has commenced in 2018.

Zambia adopted the Gender Equity and Equality Act No. 22, in 2015, and the revised National Gender Equality Policy, in 2014. Work on the development of a comprehensive national gender strategy and action plan for the energy sector has started in 2019.

1.4 Stakeholder analysis

Final beneficiaries

The final beneficiaries of the action are social services such as hospitals, schools, water utilities and municipalities, with emphasis on services to populations in poverty or vulnerable situations, small and medium sized enterprises and households, in urban areas. At present, they have little or no awareness of no-regret energy efficiency solutions.

Institutional stakeholders

The Ministry of Energy (MoE) and the Energy Regulatory Board (ERB) have demonstrated ownership in the revision of policies and rules. Currently, they are lacking familiarity with and comfort of promoting energy services companies (ESCOs) and energy performance contracting (EPC) and this gap is being closed through the ongoing EU funded demonstration projects.

The state-owned power utility ZESCO Ltd (ZESCO) and their customers

ZESCO's perspective on energy efficiency is mostly from the supply side. ZESCO's priority is the upgrading of infrastructure on its distribution network to monitor/reduce technical and commercial losses and establish network management and control capability, that is able to support wider energy efficiency initiatives. ZESCO has established a Demand Side

Management (DSM) unit, which has made progress in identifying key priority energy efficiency areas for ZESCO and the potential energy savings that may be achieved if plans are implemented, including LED lighting and power factor correction. If engaged in the action, the income loss could be compensated by increased reputation.

Technical service providers (TSP), vendors and ESCOs

The supply of energy efficiency equipment and services in Zambia has only started to emerge. There is no experience with EPC and the provision of combined energy services.

Local financial market

Commercial lenders in Zambia are unfamiliar with energy efficiency business models and lack developed procedures for technical due diligence and project appraisal, which leads to their perception that energy efficiency/ESCO projects carry high risk.

Construction sector

Buildings have, in general, poor thermal insulation and no or limited energy efficient construction materials and equipment can be found on the market.

1.5 Problem analysis/priority areas for support

Energy efficiency has proven to be effective in scaling down the massive capital investments needed to meet fast increasing electricity demand, while at the same time adapting and mitigating the impact of climate change. However, due to the low and non-cost reflective electricity tariffs, a widespread lack of knowledge and awareness of potential measures, the lack of liquidity and the high interest rates and collaterals' requirements, so far investments in energy efficiency solutions in the country have remained insignificant and market penetration of even basic products such as LED lighting or solar water heaters remained low.

Today's financial situation of ZESCO is worrying and the government's electricity subsidies are increasingly becoming major strains for public budget and the financial stability of the country. A gradual move towards cost-reflective electricity tariffs seems therefore inevitable. While an increase of the electricity tariffs would facilitate the uptake of energy efficiency technology by large investors and producers, it might pose serious affordability issues to social services, small business and low-income households, if customers would not be assisted in the process of transitioning to energy efficient systems and management.

Buildings are still constructed without considering that the energy prices will increase and the buildings operational costs will become a future burden for occupants (relying on different levels of income). Given the large amount of construction going on in Zambia and expected in the future, improving energy efficiency and climate resilience in buildings will be especially important for meeting decarbonisation objectives in the longer term. It would be much cheaper to operate energy efficiency measures at the time of the construction rather than retrofitting the buildings at a later stage.

Today there are neither national schemes nor organisations that can assist in investments in energy efficiency and low-carbon measures in the country. Existing ESCOs have limited liquidity and access to funds for ESCO projects through dedicated financing mechanisms is non-existent. Most of the cooperating partners' programmes in the energy field remain dedicated to the production and distribution of electricity. This action will therefore undoubtedly fill a gap and is expected to act as catalyst for attracting other financial resources. The EU has engaged with the Ministry of Energy on the development of an energy efficiency agenda for Zambia already for a number of years and it is therefore best placed to lead the way.

2 RISKS AND ASSUMPTIONS

Risks	Risk level (H/M/L)	Mitigating measures
Delays in finalising the EEAP 2020-2022, gazetting standards or enact rules	M	Investments to focus on areas where enabling policies and rules are in place
Slow or limited uptake of the energy efficiency and low-carbon market	M	Design of incentives using behavioural economics
Assumptions		
• Political stability and continuous GDP growth of the partner country; • Electricity cost reflective tariffs within the first 2 years of project implementation, enabling the action to reach higher impact; • Government to design and enact fiscal incentives for energy efficiency and low-carbon technology; impose import restrictions; enforce penalties on those not conforming to standards; • Coordinated action with other cooperating partners' funded programmes.		

3 LESSONS LEARNT AND COMPLEMENTARITY

3.1 Lessons learnt

- Conventional grant funding for replacement of incandescent bulbs under the Increased Energy Access Services (IAES) project has proven to be successful in terms of reducing electricity demand and CO_2 emissions, however, a more results-driven approach should be further promoted;
- To facilitate access to finance for small and medium sized enterprises (SMEs) and households is of key importance to trickle the benefits offered by energy efficiency and low-carbon energy services down in the society;
- Cooperation with established fund managers in the country can be a catalyst in overcoming difficulties related to lack of liquidity and high interest rates and to move away from non-recoverable concessionality, i.e. from straight grants;
- Lack of capacity of the public sector, SMEs and households to identify and develop energy efficiency projects eligible for financial support is a barrier for mainstreaming energy efficiency and conservation;
- Fiscal incentives for energy efficient materials and equipment and import restrictions or penalties on those that do not conform to standards should be enforced;
- Involvement of ZESCO in demand side management action is to be sought.

3.2 Complementarity, synergy and donor coordination

The EU-funded programme 'Increased Access to Electricity and Renewable Energy Production' (IAEREP, EUR 40 million, 2017-2023) focuses on improving policy and rules and standards and on building capacities for attracting private sector investments in renewable energy and energy efficiency; support for the creation of a national association of energy auditors; development of curricula at university and at technical level; demonstration projects for the promotion of the use of energy services companies (ESCO) business models in the public sector (municipal energy efficient street lighting and water utilities). It supports the

elaboration of a participative gender mainstreaming strategy and action plan for the energy sector and result monitoring framework using sex disaggregated data.

The Lusaka Transmission, Distribution and Rehabilitation project (LTDRP, EUR 65 million, 2017-2023) will identify locations where to pilot distributed generation/net-metering in low income areas of Lusaka. The Zambia window of the ElectriFi initiative (EUR 40 million, Annual Action Programme (AAP) 2017) is geared towards renewable energy and energy efficiency in rural areas.

The ongoing electricity cost of service study carried out by the Energy Regulation Board (ERB) with African Development Bank (AfDB) financing will advise the partner country on the appropriate electricity tariff structure and propose a mechanism for its adjustments.

The selection of investments for this action was refined after various consultations with some key cooperating partners (CPs), including the French Development Agency (AFD), the AfDB, the Swedish Embassy and the World Bank. The latter has recently expressed an interest in supporting demand side management interventions (power factor correction and LED lighting).

A joint Declaration of Intent on reinforced cooperation on sustainable energy has been signed in 2016 between the Government of Zambia and all the major long standing CPs active in the energy sector in Zambia, including the European Union. At technical level, coordination is managed through a well-established CPs group on energy.

4 DESCRIPTION OF THE ACTION

4.1 Overall objective, specific objective(s), expected outputs and indicative activities

The **main objective** of this action is to secure sustainable energy in Zambia.

The **specific objectives** are to:

SO1 – Unlock the potential of the private sector to contribute to the attainment of national energy efficiency and climate resilience goals.

The leveraging of private finance will enhance the equality of opportunity for specific vulnerable groups including small and medium sized enterprises (SMEs) including women headed SMEs, households and social services benefitting vulnerable populations, and compensate for the incremental cost of going beyond standard practice in energy efficiency in processes and buildings.

SO2 - Stimulate demand side management by the power utility and improved management of outages, thefts and distribution losses.

Outputs related to SO1

1.1 Enhanced *access to finance* in energy efficiency and conservation projects provided;

1.2 *Improved capacity for development of a project pipeline* of energy efficiency and conservation projects that will attract private capital created;

1.3 *Human capital*: enhanced domestic energy efficiency expertise (women and men) for private sector-led market development;

1.4 *Business environment*: improved policies, rules, standards and incentives to stimulate private sector participation in the development of an energy efficiency market;

1.5 *Governance*: enhanced capacity of authorities to effectively supervise, manage or coordinate energy efficiency services delivered by the private sector;

1.6 *Access to information*: enhanced consumer access to information on energy efficiency solutions in order to make enterprises and citizens (women/men) active players of change.

Outputs related to SO2

2.1 *Demand side management* by the power utility ZESCO stimulated;

2.2 Management of outages, thefts and distribution losses improved.

List of main indicative activities to deliver the expected outputs

1.1. Access to finance

Design and management of a risk mitigation financial instrument facilitating access to finance for energy efficiency and conservation measures (process, buildings) and supporting green entrepreneurship in the construction sector.

1.2. Project pipeline

- Development of energy audits in social service operations such as hospitals, schools, water utilities and municipalities, with focus on premises servicing populations living in vulnerable situations; development of energy audits in private sector operations with focus on SMEs, including female headed enterprises, or enterprises having a large number of beneficiaries and secured sufficient own financial contribution. Access to finance should be given in priority to those processes or premises which went through the energy audits.
- Development of energy audits for small and large buildings, including buildings in areas with populations living in vulnerable situations.

1.3. Human capital

- The above-mentioned energy audits shall be implemented by domestic energy auditors, both women and men. An external technical assistance (TA) shall assist in aspects such as standardisation of the service contracts for the energy audits, verification of the quality of the audits and delivery of formal and on-the-job trainings (women/men). The TA shall extend the training also to energy managers within the audited institutions, vendors, ESCOs, etc.
- As a contribution to the Africa-Europe Alliance, partnerships between European universities and TVET centres and Zambian equivalent counterparts will be promoted for cooperation in areas such as curricula development, training of trainers and research and innovation in energy efficiency and conservation. The extent of support in the development of curricula will depend on progress achieved and lessons learnt under the Increased Access to Electricity and Renewable Energy Production (IAEREP) programme.

1.4. Business environment

- Technical assistance to develop measures such as development of tax incentives and reliefs to encourage investment in energy efficiency solutions; introduction of mandatory audits for maximum demand customers; introduction or strengthening of standardised energy performance contracts and energy audits third party certification system.
- Technical assistance to enact building energy codes and minimum energy efficiency performance standards in buildings, to be introduced with the support of the IAEREP programme and aligned with international practices; standardise green procurement specifications; energy efficiency conditionalities for purchasing of central government

and local communities, in order for the public sector to lead by example; enforcement policies on gender equality to be introduced or reinforced with the support of the IAEREP programme.

1.5. Governance

- Enhancing capacity of authorities by a technical assistance to create a register of technical service providers (TSPs), ESCOs, etc.; reinforcing a result-based monitoring system, *inter alia*, by supplying equipment for inspections in the field of energy efficiency and equipment and information on the transparent use of the equipment for testing the energy efficiency of consumer products; contribute to result monitoring framework to report on sex disaggregated data; etc.
- Support to the establishment of an energy efficiency advisory and financial intermediation unit for sustainable housing within the National Construction Council (NCC) and possibly other energy efficiency management structures in public institutions; classification of auditors; establishment of a database of auditors and database/processing of audits; selection of a number of buildings (large and smaller buildings) to be audited by trained auditors, under activity 1.3.

1.6. Access to information

- Access to information to consumers about electricity usage: communication programme in support to the process of migration towards cost reflective electricity tariffs; energy performance of buildings (isolation of walls, roof and windows); whenever regional/continental standards and initiatives allows it, support for the introduction or mainstreaming of an energy labelling system for appliances.
- Access to information to real estate developers, contractors, financial institutions, architects and building owners:
  - Making more information easily available - including through training / online webinars for professionals, etc. - on aspects such as evidence-based estimates of expected energy savings and wider resilience benefits throughout the economic life of the buildings, with the ultimate goal of guiding investment decisions of real estate developers, financial institutions and building owners;
  - Awareness campaign for the general public including vulnerable groups with focus and targeted in depth workshops or webinars for architects, real estate developers and contractors on specific topics such as designs, specific materials, financing;
  - Trade fair(s) to stimulate the creation of an information, communication and cooperation network in the construction and energy sector among Zambia and EU Member States, engaging with a variety of partners to support communities, real estate developers and building owners with comprehensive and cost effective services.

During these activities, attention will be paid to ensure gender balance within target groups.

Component 2: demand side management by the power utility ZESCO stimulated and management of outages, thefts and distribution losses improved

2.1 Demand side management

- Demand side management programme covering the replacement of inefficient lights with focus on public buildings and low-income residential customers and power factor correction with focus on SMEs in vulnerable situations and social services aiming at improving working and living conditions. The programme should be implemented

through a ring-fenced revolving fund and time-bound incentives for power factor correction should be matched in time with the enactment of the 2016 Distribution Code penalties to force power factor correction. Power utility's clients, according to their ability to pay, shall repay the investment throughout their monthly electricity bills and the power utility will transfer these amounts to replenish the revolving fund.

- Awareness campaign tailored to the enactment of the 2016 Distribution Code penalties to force power factor correction.

2.2 Management of outages, thefts and distribution losses

- Installations of power quality monitors in an identified pilot area (Lusaka Central Division of ZESCO), to test improved management of outages, thefts and distribution losses and to stimulate demand side management by electricity rate structures which encourages offering services for consumers to save energy and to control consumption. Network tariffs to be piloted should facilitate shifting customers' demand from peak to off-peak time, encourage them to reduce energy demand, store energy or connect or dispatch electricity from distributed generation. Network tariffs should, *inter alia*, facilitate the possibilities of dynamic pricing, taking also into account the needs of groups living in vulnerable situations.
- Introducing smart meters for different categories of customers.
- Capacity building in supply and demand side management with the power utilities.
- Technical assistance may also be extended to clarify aspects such as the policy framework for distribution of energy costs, incentives and mandate at utility level and for public sector.

For financing of revolving nature, the intention is to use and reuse funds as much as possible during the implementation period of the action. At the end of the implementation period, the funds that are left will be decommitted at programme level.

4.2 Intervention Logic

This action will support the implementation of the first-ever 3-year national energy efficiency action plan (EEAP, 2020-2022), currently elaborated under the EU-funded 'Increased Access to Electricity and Renewable Energy Production' (IAEREP) programme. The majority of the activities to improve the business environment shall be implemented by the IAEREP programme while this action shall focus on harnessing the potential for energy efficiency and conservation investments.

The financial schemes will support the piloting or scaling up of inclusive business models for social services and for leveraging private sector financing for SMEs and households that meet the needs of end users and provide sustainable energy services that are affordable, efficient and of good quality. The action shall be part of a wider programme, the EEAP, where time-bound incentives are used to reduce the payback periods of capital investments and facilitate the transitioning towards electricity cost reflective tariffs.

Participating public sector entities will be requested to commit to adopt a procurement system where only products and services with high energy efficiency performance may be acquired (leading by example).

A demand side management programme for designated categories of customers will facilitate the enforcement of penalties for power factor correction and wider acceptance of migrating towards cost-reflective tariffs for low income residential customers.

Market activities and on-the-job training will encourage the emergence of a strong group of professional local energy and building auditors and energy managers, technology providers, ESCOs and vendors.

Support to the construction sector shall also encourage the appearance of in-country manufacturers and suppliers, leading to the creation of green jobs. Given the large amount of construction going on in Zambia and expected in the future, this opportunity should be seized now to avoid retrofitting a much larger stock of buildings at a later stage.

Increasing knowledge and awareness of potential energy efficiency solutions amongst key stakeholders, including the public, regarding the benefits of and opportunities for energy efficiency as a most cost-effective energy resource, will enable energy efficiency measures to be implemented by the wider public.

The implementation of the action will support cooperation between Zambia and the EU, EU Member States and stakeholders in the energy efficiency sector in view to reinforce the partnership between both continents and in line with the Africa-Europe Alliance for sustainable investments and jobs. It will make use of the European standards as well as best practices and technologies available in the European private sector to the benefit of Zambia.

4.3 Mainstreaming

Environmental sustainability: support for energy efficiency measures shall contribute to climate change mitigation, through reduced emissions of greenhouses gases (GHG). Adequate information on the impact of the proposed projects on GHG will be a prerequisite for the evaluation of proposals. Awareness raising activities will be extended to the private sector on the use of environmentally friendly methods and the promotion of green jobs. Activities will strengthen understanding and knowledge of the potential of energy efficiency and demand side management and facilitate credit for local energy efficiency investments. The action will help improve collection, management and interpretation of data related to GHG emissions.

Right-based approach: the action will abide by the 'do no harm principle' to avoid unintended negative impact in terms of human rights and will be implemented following the rights-based approach working principles (all rights, participation, non-discrimination, accountability and transparency). The proposed actions will develop the capacities of the stakeholders as 'rights-holders' to claim their rights and 'duty-bearers' to meet their obligations. Private sector involved in the programme will adhere to the UN Guidelines on Business and Human rights. Civil society, including women's organisations, shall be consulted at different stages of project cycle, both in representing the population and in the role as watch dog.

Gender and women's empowerment: the financing instruments and the capacity building activities will make an intentional strive for women to contribute actively in the energy value chain; increase their technical and business capacity; strengthen their role as energy entrepreneurs. The national gender mainstreaming strategy that the Ministry of Energy is developing with support of the IAEREP programme, will be used to support the formulation of capacity building actions. A gender analysis will be conducted in the design of all projects.

Digital services will be an integral part of this action and expected to offer significant opportunities for improvement of digital skills and market.

4.4 Contribution to SDGs

This intervention is relevant for the United Nations 2030 Agenda for Sustainable Development. It contributes primarily to the progressive achievement of SDG 7, which promotes access to affordable, reliable, sustainable and modern energy for all and SDG 13, which aims at taking urgent action to combat climate change and its impacts. It also contributes to SDG 5, which promotes gender equality, SDG 9, aiming at building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation and SDG 11, on sustainable cities and communities.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4 will be carried out and the corresponding contracts and agreements implemented, is **72 months** from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission's responsible authorising officer by amending this Decision and the relevant contracts and agreements.

5.3 Implementation of the budget support component

N/A.

5.4 Implementation modalities

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures[9].

5.4.1 *Procurement (direct management)*

A technical assistance facility where resources are tapped across the two specific objectives of the action for aspects such as the verification of the quality of the audits prior to the execution of financial expenditure verification, training, drafting or second opinion on policies and regulation, etc. (implementing parts of all Specific Objectives).

Subject	Indicative type (works, supplies, services)	Indicative trimester of launch of the procedure
Technical Assistance	Services	Q2/Year 1

[9] www.sanctionsmap.eu Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.

5.4.2 *Contribution to Africa Investment Platform*

A part of this action (activities related to access to finance 1.1) may be implemented under indirect management with the entities, called Lead Finance Institutions, identified in Appendix 2 to this action document.

5.4.3 *Indirect management with the partner country*

A part of this action, with the objective of developing a strong pipeline of low-carbon, finance-ready projects in order to: increase in-country energy efficiency expertise relevant for low-carbon, energy efficiency market development; improve the business environment for energy efficiency services; enhance governance and capacity of authorities; develop an electricity supply demand side management programme; facilitate access to information on energy efficiency and increase knowledge on climate resilience and climate change issues (implementing parts of all Specific Objectives), may be implemented in indirect management with the Republic of Zambia according to the following modalities:

The partner country will act as the contracting authority for the procurement and grant procedures. The Commission will control ex-ante all the procurement procedures except in cases where programme estimates are applied, under which the Commission applies ex-ante control for procurement contracts above EUR 100 000 (or lower, based on a risk assessment) and may apply ex-post control for procurement contracts up to that threshold. The Commission will control ex-ante the grant procedures for all grant contracts.

Payments are executed by the Commission except in cases where programmes estimates are applied, under which payments are executed by the partner country for ordinary operating costs, direct labour and contracts below EUR 300 000 for procurement and for grants.

The financial contribution covers, for an amount of EUR 1 750 000, the ordinary operating costs incurred under the programme estimates.

The partner country shall apply the Commission's rules on procurement and grants. These rules will be laid down in the financing agreement to be concluded with the partner country.

5.5 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

5.6 Indicative budget

	EU contribution (in EUR)	Indicative third party contribution (in EUR)
5.4.1 Procurement (direct management)	**1 500 000**	0
- SO1 Private sector participation	*1 000 000*	0
- SO2 Electricity industry	*500 000*	0
5.4.2 Contribution to the Africa Investment Platform	**12 500 000**	5 000 000*
- SO1 Private sector participation	*12 500 000*	5 000 000*
5.4.3 Indirect management with the partner country	**9 750 000**	5 000 000*
- SO1 Private sector participation	*1 750 000*	0
- SO2 Electricity industry	*8 000 000*	5 000 000*
5.9 Evaluation, 5.10 Audit	250 000	N.A.
5.11 Communication and visibility	400 000	N.A.
Contingencies	600 000	N.A.
Totals	25 000 000	10 000 000*

*Indicative – to be decided at a later stage

5.7 Organisational set-up and responsibilities

In order to ensure a sustainable transformation, this action is run as an overarching programme with a sector driven approach.

A **Steering Committee** shall be set up to oversee and validate the strategic direction and policy of the action; to undertake continuous monitoring of the programme implementation; to facilitate the implementation of visibility actions. The project Steering Committee shall meet every six months. The permanent members of the project Steering Committee shall be composed of representatives of the inter-ministerial committee on energy efficiency of the republic of Zambia (formed under the IAEREP project), of the entrusted entities and of the Delegation of the EU to Zambia and COMESA. The Committee will be chaired by the Ministry of Energy (MoE) with a representative from the EU Delegation in Zambia acting as co-chair. The Steering Committee should approve the criteria for receiving supplies and for the reimbursing mechanism under SO2.

A **technical committee**, chaired by the MoE and co-chaired by the National Construction Council (NCC), consists of representatives from government, public agencies, the EU and other relevant cooperating partners, the team leader(s) of service provider(s). Gender focal officials from relevant line ministries will be regularly invited. Participation from civil society and academia will be encouraged. This committee shall meet every quarter. The duties and authorities of the Technical Committee are as follows: coordination, technical support,

operational guidance, performance report to the Steering Committee every six months. Terms of reference of the technical committee will be agreed shortly after the commencement of the action.

The Ministry of Energy (MoE) will appoint a **coordinator** for the action. The main responsibilities of the coordinator are to oversee and coordinate the actions of all players, to reach the strategic objectives of the programme, to manage the practical and technical elements of the programme.

Three **supervisors** will be appointed for the action, as follows:

Energy efficiency quick wins in social services, SMEs and households: MoE

Energy efficiency in buildings: NCC

Supply and demand side management; promotion of digitalisation in the electricity industry: ZESCO

5.8 Performance and Results monitoring and reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (outputs and direct outcomes) as measured by corresponding sex-disaggregated indicators, using as reference the Logframe matrix.

Performance will also be monitored in accordance with principles and targets set by the Paris Declaration which covers the five pillars: Ownership, Alignment, Harmonisation, Mutual Accountability, and Managing for Results.

SDGs indicators and, if applicable, any jointly agreed indicators as for instance per Joint Programming Document should be taken into account.

Reports shall be laid out in such a way as to allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of the action implementation.

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

5.9 Evaluation

Having regard to the nature of the action, mid-term and ex-post evaluations will be carried out for this action or its components via independent consultants contracted by the Commission. The teams will include expertise also on rights-based approach and gender equality.

The mid-term evaluation will be carried out for problem solving, learning purposes, in particular with respect to efficiency of the human resources allocated to the different organisations, assessment on gaps and eventual necessity of reallocating resources, to assess potential for scaling up the action.

The ex-post evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that the project involves different levels of coordination and several technical solutions.

The Commission shall inform the implementing partner at least one month in advance of the dates foreseen for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Evaluation services may be contracted under a framework contract.

5.10 Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.

It is foreseen that audit services may be contracted under a framework contract.

5.11 Communication and visibility

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU.

This action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan, to be elaborated at the start of implementation. The plan will take into account also the crosscutting issues covered in section 4.3.

In terms of legal obligations on communication and visibility, the measures shall be implemented by the Commission, the partner country, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations shall be included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

The Communication and Visibility Requirements for European Union External Action (or any succeeding document) shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

Necessary coordination shall also be ensured with the relevant thematic communications activities and tools available under the NIP. Furthermore, the action shall use common branding regarding all EU support to the energy sector in Zambia.

It is foreseen that a contract for communication and visibility may be contracted under a framework contract.

6 PRE-CONDITIONS

N/A.

APPENDIX 1 - INDICATIVE LOGFRAME MATRIX (FOR PROJECT MODALITY)

	Results chain: Main expected results (maximum 10)	Indicators (at least one indicator per expected result)	Sources of data	Assumptions
Impact (Overall Objective)	To secure sustainable energy in Zambia	1. SDG 9.4.1 CO2 emission per unit of value added ** EURF 1.23	1. ERB annual report; NDC reports; 7NDP monitoring reports; other GRZ reports; 2. Survey within final evaluation	*Not applicable*
Outcome(s) (Specific Objective(s))	**SO 1** Unlocking the potential of the private sector to contribute to the attainment of national energy efficiency and climate resilience goals.	1.1 Volume of investments in energy efficiency and conservation leveraged by the action, disaggregated by market segments (€) 1.2 Number of qualified energy auditors (disaggregated by sex), technical service providers (TPS), energy service companies (ESCOs) and vendors, disaggregated per market segment; 1.3 Level of penetration of energy efficient construction materials and products and in the market (% of total market disaggregate per type of building) 1.4 Number of jobs directly or indirectly created with EU support, disaggregated by sex **EURF 2.11	1.1 Fund manager's financial data; verification reports; survey within final evaluation of action 1.2 Fund manager's financial data; baseline data from the IAEREP project; survey within final evaluation of action (final survey) 1.3 Baseline data from the EEAP 2020-2022; final survey 1.4 Fund manager's data; verification reports; final survey	The Government of Zambia (GRZ) remains committed to energy efficiency reforms and to migrate to electricity cost reflective tariffs. The DSM programme functions in a transparent and open way and is able to offer competitive financial products.
	SO 2 Stimulation of demand side management by the power utility and improved management of outages, thefts and distribution losses	2.1 Number of outages in the pilot area (#/year) 2.2 Average time (in hours) needed to fix an outage disaggregated per type of failure 2.3 Volume of investments in DSM in the targeted products leveraged by the action (€)	2.1 ZESCO data 2.2 ZESCO data 2.3 ZESCO data; technical audits; PE reporting.	

	Results chain: Main expected results (maximum 10)	Indicators (at least one indicator per expected result)	Sources of data	Assumptions
Results / Outputs	1.1 *Access to finance* in energy efficiency and conservation projects provided 1.2 *Project pipeline* of energy efficiency and conservation projects that will attract private capital created 1.3 *Human capital:* enhanced domestic energy efficiency expertise (women/men) for market development 1.4 *Business environment:* improved policies, rules, standards and incentives to stimulate private sector participation in the development of an energy efficiency market 1.5 *Governance:* enhanced capacity of authorities to effectively supervise, manage or coordinate energy efficiency services delivered by the private sector 1.6 *Access to information:* enhanced consumer access to information on energy efficiency solutions	1.1.1 Number of companies supported by the action 1.1.2 Amount of private sector financing in energy efficiency and conservation leveraged through the action (in % of funds disbursed) 1.1.3 Turnover achieved by enterprises supported and leveraged through the action in energy efficiency and conservation (in EUR) 1.2.1 Number of energy audits per market segment supported by the action disaggregated per customer category and category of audit; 1.3.1 % of members of the national association of auditors participating to the action disaggregated by sex; 1.3.2 Number of representatives of public institutions trained, disaggregated by sex 1.4.1 Status of enactment of the components of the EEAP 2020-2022 covered by this action 1.5.1 Status and consistency of documents for project development across competent institutions supported by the Action 1.6.1 Percentage of target groups scoring good in surveys after awareness campaigns supported by the action on energy savings possibilities, disaggregated by sex	1.1.1 Fund manager's reports (FMR); verification reports; ZESCO data 1.1.2 FM financial data; final survey 1.1.3 Audits and verification data; ZESCO data 1.2.1 Data on audits; verification reports; data on PE disbursements for energy audits 1.3.1 Data from association and from IAEREP; verification reports 1.3.2 FMR; PE reports; training reports 1.4.1 PE and TA reports; gazetted rules and regulations 1.5.1 TA reports 1.6.1 PE reports; C&V M&E data	- The implementing partners are committed to the action. - Migration towards electricity cost reflective tariffs within the first 2 years of project implementation. - Enactment of an EEAP 2020-2022. - The network of energy auditors is functioning. - Continued interest of local manufacturers, TPS, ESCOs and vendors towards acquisition of new skills. - Enacting of power factor correction penalties within the first year of project implementation.

	Results chain: Main expected results (maximum 10)	Indicators (at least one indicator per expected result)	Sources of data	Assumptions
	2.1 Demand side management by the power utility ZESCO stimulated; 2.2 Management of outages, thefts and distribution losses improved.	2.1.1 Number of ZESCO customers supported by the action, disaggregated by customer category 2.2.1 Number of trainings to ZESCO personnel in supply and demand side management 2.2.2 Number of power management recorders installed 2.2.3 Number of smart meters installed	2.1.1 to 2.2.3 PE data; TA technical verification data; expenditure verification data	

APPENDIX 2 - LIST OF ELIGIBLE LEAD FINANCE INSTITUTIONS

Acronym of Legal Entity	**Legal Entity (sub-entities covered (if any) via hyperlink)**
ADB	Asian Development Bank
AfDB	African Development Bank
AU-IBAR	African Union
CABEI	Central American Bank for Economic Integration
CIFOR	Centre for International Forestry Research
EBRD	European Bank for reconstruction and development
EIB	European Investment Bank
EIF	European Investment Fund
IADB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
NEFCO	Nordic Environment Finance Corporation
OIE	World Organisation for Animal Health
SPC	The Pacific Community
SPREP	South Pacific Regional Environment Programme
WBG	World Bank Group (IBRD, IDA, IFC, MIGA, ICSID)
WFP	World Food Programme

Acronym	**National Agency, Country**
AECID	Agencia española de cooperación internacional al desarrollo, Spain
AFD	Agence française de développement, France
CDP	Cassa depositi e prestiti S.p.A., Italy
COFIDES	Compañía española de financiación del desarrollo, Spain

DEG	Deutsche Investitions- und Entwicklungsgesellschaft mbH, Germany
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden, Netherlands
KfW	Kreditanstalt fur Wiederaufbau, Germany
PROPARCO	Groupe Agence Française de Développement, France
RVO	Rijksdienst voor Ondernemend Nederland (Netherlands Enterprise Agency), Netherlands
SIMEST	Societa Italiana per le Imprese al'Estero, Italy
USAID	United States Agency for International Development, USA