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THIS ACTION IS FUNDED BY THE EUROPEAN UNION

ANNEX 1

to the Commission Implementing Decision on the financing of the annual action plan in favour of the Republic of Malawi for 2024

Action Document for Eastern Backbone Power Transmission

ANNUAL PLAN

This document constitutes the annual work programme within the meaning of Article 110(2) of the Financial Regulation, within the meaning of Article 23 of the NDICI-Global Europe Regulation.

1 SYNOPSIS

1.1 Action Summary Table

1. Title CRIS/OPSYS business reference Basic Act	Eastern Backbone Power Transmission OPSYS number: ACT-61744 Financed under the Neighbourhood, Development and International Cooperation Instrument (NDICI-Global Europe)
2. Team Europe Initiative (TEI)	Yes; TEI Green Growth for Malawi.
3. Zone benefiting from the action	The action shall be carried out in Malawi.
4. Programming document	Republic of Malawi – Multi-annual Indicative Programme (MIP) for Malawi 2021-2027.
5. Link with relevant MIP(s) objectives / expected results	The action contributes to: <u>Specific Objective 3</u> : Developing economic infrastructure, and <u>Expected Result 1.3.1</u> : ‘Improved access to energy for all, increased energy efficiency and renewable energy generation’, and <u>Expected Result 1.3.2</u> : ‘Key economic infrastructure developed or rehabilitated based on sustainability principles’.
PRIORITY AREAS AND SECTOR INFORMATION	
6. Priority Area(s), sectors	MIP Priority area 1, Green and resilient economic transformation Energy Sector (230).
7. Sustainable Development Goals (SDGs)	Main SDG: 7 (affordable and clean energy) Other significant SDGs: 9 (resilient infrastructure); 13 Climate action
8 a) DAC code(s)	23630 Electric power transmission and distribution (centralised grids) 100 %.
8 b) Main Delivery Channel	42004 European Investment Bank.

9. Targets	<input type="checkbox"/> Migration <input checked="" type="checkbox"/> Climate <input type="checkbox"/> Social inclusion and Human Development <input type="checkbox"/> Gender <input type="checkbox"/> Biodiversity <input type="checkbox"/> Education <input type="checkbox"/> Human Rights, Democracy and Governance				
10. Markers (from DAC form)	General policy objective @	Not targeted	Significant objective	Principal objective	
	Participation development/good governance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Aid to environment @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Gender equality and women's and girl's empowerment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disaster Risk Reduction @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Inclusion of persons with Disabilities @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Nutrition @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RIO Convention markers	Not targeted	Significant objective	Principal objective	
	Biological diversity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Combat desertification @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Climate change mitigation @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Climate change adaptation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Internal markers and Tags:	Policy objectives	Not targeted	Significant objective	Principal objective	
	Digitalisation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	digital connectivity digital governance digital entrepreneurship digital skills/literacy digital services	YES <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	NO <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	/	
	Connectivity @	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
	digital connectivity energy transport health education and research	YES <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NO <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	/	
	Migration @	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	Reduction of Inequalities @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	COVID-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	BUDGET INFORMATION				
	12. Amounts concerned	Budget line(s) (article, item): 14.020122 Total estimated cost: EUR 85 000 000. Total amount of EU budget contribution: EUR 30 000 000.			

	<p>This action is co-financed:</p> <ul style="list-style-type: none"> - in joint co-financing by the European Investment Bank for an amount of EUR 55 000 000; - in parallel co-financing by African Development Bank for an amount of EUR 25 000 000.
MANAGEMENT AND IMPLEMENTATION	
13. Type of financing	<p>This contribution to the Regional Blending Platform shall be implemented in indirect management by the European Investment Bank.</p> <p>Budgetary guarantee(s) as set out in section 4.4.2</p>

1.2 Summary of the Action

This action will improve Malawi's power sector by upgrading the Eastern Backbone transmission lines joining the central and northern region. A new 132 kV line will be constructed on steel latticed towers to replace the now unreliable 42 year old wooden pole-mounted lines, which serve important domestic, agro-based industries, mining and rural growth centres. The action will increase the reliability of electricity supply and reduce transmission losses, while contributing to climate and environment objectives, as well as building the resilience of critical infrastructure. The Eastern Backbone will enable the transmission of exclusively green energy with a new energy efficient system. The new 293 km line will start from the existing Nkhoma substation (Lilongwe, central region) and run east to Nanjoka substation (Salima, central region). The line will then extend northwards along Lake Malawi connecting to existing substations at Nkhotakota, Dwangwa and Chintheche (all northern region). The action also includes the replacement of an existing 66kV line with a 132 kV line running westwards from Nkhotakota substation to the Chinyama substation in Kasungu (central region).

This Global Gateway initiative will provide quality infrastructure that supports the investment ecosystem for industry and services and is aligned to the Malawi 2063 10-year implementation plan of prioritised investments, namely, 'construct new transmission lines and substations to support energy generation and distribution capacity'. It will support economic growth in the targeted districts by increasing the reliability, security and sufficiency of power supply.

The capacities of the transmission and distribution power utility, ESCOM¹, will be strengthened in the areas of project development and grid expansion, as well as operation and maintenance capacities to deliver a high level of quality of service. This will include digital solutions for the national control centre to deliver real-time and efficient services.

The action will be implemented through a blending operation, co-funded with a concessional loan from the European Investment Bank (EIB), with parallel grant funding from the African Development Bank. In a Team Europe approach, Swedfund is funding the environmental and social impact assessment (ESIA). The action will be an integral part of the TEI Green Growth, to which also Germany, Ireland and the Belgian region of Flanders contribute with complementary interventions in a joint intervention logic. The strands of action of the TEI are climate-smart value chain development, clean energy and nutrition.

1.3 Zone benefitting from the Action

The Action shall be carried out in Malawi which is included in the list of ODA recipients.

¹ Electricity Supply Corporation of Malawi

2 RATIONALE

2.1 Context

Country context

Malawi is a landlocked, low-income country, with one of the highest incidences of poverty, food insecurity and frequent weather-related shocks. Malawi ranks 169th out of 191 countries in the 2020 Human Development Index² putting it in the low human development category. With an estimated population of 20.41 million (2022), spanning over 118,484 km² and an annual population growth rate of 2.6%, it is one of the most densely populated countries on the continent. The economy is heavily dependent on agriculture and there is a relatively low urbanisation rate with 84% of the population living in rural areas. Over 50% of the population is younger than 18 years and the median age is 16 for both women and men. With a growing population, expected to double in 2038, there is increasing pressure to deliver jobs and public services. In addition, Malawi continues to face many challenges in gender equality and empowerment of women.

Malawi has suffered the effects of climate change with an increase in frequency and intensity of extreme weather events like dry spells, droughts, intense rainfall, tropical storms/cyclones, and floods. Most recently the impacts of tropical storm Ana (2022) and cyclone Freddy (2023) have had devastating effects in the southern region on both the population and infrastructure, particularly the Kapichira hydropower plant. Additionally, deforestation is a major environmental issue and compounds the effects of extreme weather events. While weather conditions are less severe in the central and northern regions, the design of the transmission line will take relevant disaster risk reduction measures into account.

While Malawi has undertaken a number of economic and structural reforms, the economy remains weak and is heavily dependent on agriculture accounting for nearly 80% of employment. The already fragile economy has proved vulnerable to external shocks, particularly climatic shocks and their associated flooding and droughts. Cyclone Freddy was particularly destructive with damages in excess of USD 500 million and estimated production losses equivalent to 0.5% of GDP. Additionally, the impact of the Russian aggression against Ukraine has had a direct consequence on rising commodity prices, higher production costs, and higher borrowing costs. Increasing prices of imported fertiliser and poor harvests have given rise to increased domestic food prices and consequent pressure on household incomes, pushing many into poverty and acute food insecurity.

Weak economic growth is coupled with macroeconomic imbalances, an ongoing crisis in the balance of payments and a worsening fiscal deficit. Recent scarcity of foreign currency has led to crippling fuel shortages, negatively impacting the whole economy. The industrial sector has been hard hit by the fuel rationing and intermittent electricity supply. Access to foreign exchange is also impacting on the private sector's ability to import inputs necessary for production. While government debt is currently unsustainable, there are continuous efforts on debt restructuring, which the EU supports. This resulted in the IMF approving the Extended Credit Facility in November 2023, taking into account the implementation of the debt restructuring strategy adopted in August 2022. Further reforms are necessary to get the economy back on track and the growth forecast is for a slow recovery. However, fiscal space is expected to remain constrained especially for the needed investments to support jobs and growth.

In January 2021, the Government launched its development plan, the Malawi 2063 that aims at transforming Malawi into a wealthy and self-reliant industrialised upper middle-income country. The Malawi 2063 first 10 year Implementation Plan (MIP-1, 2021-2030) outlines priority objectives and interventions with the aim to move Malawi into the lower middle-income category by 2030, and meeting most of the SDGs of the 2030 Agenda. Implementation is based on a number of enablers

² <https://hdr.undp.org/data-center/specific-country-data#/countries/MWI>

including Enabler 6: ‘Economic Infrastructure’ whose key strategies and interventions includes ‘investing in new high-capacity power plants and construct new transmission lines and substations to support energy generation and distribution capacity’. Given the fiscal challenges, concessional finance with development banks coupled with blending operations are the only feasible solution to fund essential transmission infrastructure.

Energy sector context

Malawi 2063 expresses aspirations for modernisation and industrialisation of the economy with energy playing a central role in this development. However, the country has the lowest national electrification rate of the Southern Africa Development Community (SADC) region with an electricity access rate served by the grid of only 11% and of 20% when including off-grid solutions. With about 95% of the population living within 10 km of the grid and a high concentration within 5 km, there is great potential to increase access through expansion. Demand for new connections has been high and the previously slow implementation by ESCOM of the World Bank funded Malawi Rural Electrification Programme (MAREP) has received new impetus since early 2023 achieving 40,600 connections in six months. The hiring of private sector contractors is expected to accelerate implementation over the coming years.

Implementation of sector reforms has been slow and hindered to some extent by financial and resource constraints. The market structure remains monopolistic and the uncertainty around the former single buyer Power Market Limited (PML) was resolved only in January 2023 with its dissolution and the transfer of the single buyer function back into ESCOM. The completion of the EU/KfW/World Bank-funded Mozambique-Malawi interconnector, scheduled for mid-2024, provides an opportunity to reform the market structure in line with the Southern Africa Power Pool (SAPP) wholesale market model. The ongoing EU-funded technical assistance and Twinning projects are currently working on institutional and regulatory changes necessary to further reform the market.

Following sector unbundling, ESCOM has faced a number of challenges including its financial sustainability. Operational efficiency needs improvement including in its connection teams, customer service, procurement system, management information system, grid operation and maintenance, and addressing line faults and technical losses. Additionally, the introduction of new private sector renewable energy investments, particularly solar, present system stability challenges for ESCOM requiring digital solutions. The EU and other donors are assisting ESCOM in improving its operational and financial efficiency.

Industrial growth has been constrained by the unreliable power supply in Malawi. Damages resulting from Tropical Storm Ana (January 2022) caused the Kapichira Power Plant, representing 30% of power production in the country, to close for extensive repairs, leading to frequent and extended load shedding. Insufficient power transmission capacity from the central region to the northern region has also presented challenges. Limited power availability impacted on ESCOM’s ability to meet existing customer demand and negatively impacted on their programme to extend connections and access to new customers. Availability of generation capacity to meet the needs of increased access will be improved with the upcoming completion of the Mozambique-Malawi interconnector in mid-2024, new solar power plants, adding so far 110 MW, and the planned 361 MW Mpatamanga Hydro Plant, ready to operate by 2030. Therefore, improvement of transmission infrastructure to support industrial growth and new connections needs to be addressed in parallel to the increase in generation.

Social development context

Despite advances in gender equality over the last decade, Malawi ranks 142/162 on the Gender Inequality Index (GII), reflecting high levels of inequality in reproductive health, women’s empowerment and economic activity. The 2018 National Energy Policy recognises the constitutional obligation to support the participation of women in all aspects of life. From a gender perspective, only 7.6 % of female-headed households have access to electricity compared to 12 % of male-headed

households (NSO, 2019). An EU gender analysis (2018) on the infrastructure sectors in Malawi found that that energy interventions can contribute to women’s economic empowerment and achieving greater gender equality and equity and that opportunities exist to create synergies between gender considerations and profitable and efficient investments.

2.2 Problem Analysis

The national grid suffers from years of underinvestment, while ESCOM as the transmission and distribution company is constrained by weak financial performance and non-cost reflective tariffs. The efficient distribution of power and the addition of new renewable energy (RE) resources are constrained by overloading in critical parts of the ageing network. There is a need to improve strategic planning of priority investments in the national grid and to secure the necessary funding. The updating of the generation and transmission plans are ongoing and are expected to be published by the end of 2023. The Eastern Backbone is already identified as a priority and will facilitate new connections and better serve existing customers. Increasing energy access requires support across the value chain including generation and transmission infrastructure that can support new connections. Limited central to north transmission poses challenges in supplying the northern region from the hydropower plants in the south. Additionally, potential new investments in renewable energy in the northern region are currently constrained by the limited carrying capacity of the existing network.

The existing 132 kV transmission system from the central to the northern region relies on old wooden pole-mounted power lines, which are prone to regular failure. This results in low energy efficiency and a poor quality of service of electricity in the central region (Salima and Kasungu) and particularly the northern region (Nkhotakota, Dwangwa and Chintheche), where supply is frequently interrupted for long periods. Overall, the low reliability and security of the power supply to central and northern regions is holding back economic growth. Large consumers in the northern region cannot expand their production, as is the case for a cement factory which is relying on diesel generators to manage peak production. There is also increased investor interest in the mining sector, particularly for rare earths which can support the sustainable energy transition. Increased economic activity is expected to drive further consumer demand for connections and increase the access rate.

Design, operation and maintenance of a new 132 kV power line will present new challenges for ESCOM. Therefore, capacity building needs to strengthen skills and knowledge have been identified and include design of climate resilient power lines and substations, live-line maintenance of electrical systems to minimise interruptions, and power system protection principles and practices to safeguard electrical grids from faults and outages.

Young graduates, in particular women, find it very difficult to secure a start in their profession in the limited job market. As an EU initiative, young women graduates have been hired under the ongoing Malawi Energy Programme – Wala Malawi and the M1-road Rehabilitation project. This has proved successful in providing them with a first professional job and enhancing their future employability.

Identification of main stakeholders and corresponding institutional and/or organisational issues (mandates, potential roles, and capacities) to be covered by the action:

The key institutional stakeholders are identified in the table below with their respective mandates, potential roles and capacities:

Stakeholder	Mandate	Role and capacities
Ministry of Finance and Economic Affairs	Responsible for economic and fiscal policies and strategic guidance on economic and development planning.	Negotiating and signing of sovereign loan agreement.

Ministry of Energy (MoE)	Responsible for energy sector policy making, coordination, implementation.	Oversight of ESCOM.
Ministry of Natural Resources and Forestry	Responsible for environmental policy.	Review, approval and monitoring of ESIA ³ .
ESCOM	Transmission and distribution.	Project Promoter under blending operation responsible for project implementation.
European Investment Bank (EIB)	Providing long-term project finance, guarantees and technical advice.	Potentially providing concessional loan funding and implementing a blending operation.
African Development Bank (AfDB)	Providing long-term project finance, guarantees and technical advice.	Potentially providing concessional loan/grant funding.

3 DESCRIPTION OF THE ACTION

3.1 Objectives and Expected Outputs

The Overall Objective of this action is to accelerate Malawi's transition towards an effective climate resilient energy sector.

The Specific(s) Objective(s) of this action are

SO1: To improve inclusive access to affordable, reliable, sustainable, and modern energy in the northern region of Malawi.

SO2: To improve ESCOM performance to provide quality and efficient electricity service.

The Outputs to be delivered by this action contributing to the corresponding Specific Objectives are as follows:

- 1.1 Upgraded and climate-resilient transmission power network serving the northern region.
- 1.2 Increased capacity of grid system in the northern region.
- 2.1 Improved technical design and development capacities of ESCOM.
- 2.2 Improved operation and maintenance capacities of ESCOM.

3.2 Indicative Activities

Activities relating to Output 1.1: Upgraded and climate resilient transmission power network serving the northern region.

Finance and construct the Eastern Backbone transmission line including:

- Construction of a new 132 kV power line running east from Lilongwe to Salima and then north to Nkhotakota, Dwangwa and Chintheche.
- Construction of a new 132 kV power line running from Nkhotakota substation to Chinya Kasungu.

³ Environmental and Social Impact Assessment

Activities relating to Output 1.2: Increased capacity of grid system in the northern region.

Finance and construct/extend substations in the Eastern Backbone grid system including:

- Increase/extend a receiving bay at Nanjoka substation (Salima) for 132 kV line.
- Construction a new substation at Kanyika (Mzimba District).
- Upgrade existing Nanjoka, Nkhotakota, Chintchehe and Chinyama substations to accommodate the additional load.

Activities relating to Output 2.1: Improved technical design and development capacities of ESCOM.

Build capacity of ESCOM to design and develop transmission grid systems including:

- Training on tower design to equip personnel with the skills and knowledge required for designing and analysing power transmission towers using specialised software tools.
- Training on design of substations to provide an understanding of substation design, including layout, equipment selection, and safety considerations. Training on climate risk management for transmission infrastructure will be included.

Activities relating to Output 2.2: Improved operation and maintenance capacities of ESCOM.

Build capacity of ESCOM to operate and maintain the new transmission grid system including:

- Training on power system protection to equip personnel with skills on power system protection principles and practices, safeguarding electrical grids from faults and outages.
- Training and equipment for live-line maintenance focusing on performing maintenance tasks on live electrical systems, minimising disruptions, and ensuring safety.

The commitment of the EU's contribution to the Team Europe Initiative to which this action refers, will be complemented by other contributions from Team Europe members. It is subject to the formal confirmation of each respective member's meaningful contribution as early as possible. In the event that the TEIs and/or these contributions do not materialise, the EU action may continue outside a TEI framework.

3.3 Mainstreaming

Environmental Protection & Climate Change

Outcomes of the Strategic Environmental Assessment (SEA) screening (relevant for budget support and strategic-level interventions)

The **SEA** screening concluded that key environmental and climate-related aspects need be addressed during design.

Outcomes of the EIA (Environmental Impact Assessment) screening (relevant for projects and/or specific interventions within a project)

The EIA (Environment Impact Assessment) screening classified the action as Category A (EIA will be undertaken). The EIA study is ongoing and funded by Swedfund.

Outcome of the CRA (Climate Risk Assessment) screening (relevant for projects and/or specific interventions within a project).

The Climate Risk Assessment (CRA) screening concluded that this action is at risk (climate risk will be addressed as part of an EIA). The design of the transmission infrastructure will take climate risks into account. Training on climate risk management will be included within the capacity building.

Gender equality and empowerment of women and girls

As per the OECD Gender DAC codes identified in section 1.1, this action is labelled as G0. This implies that the action is not specifically targeting the social or economic empowerment of women. This is because the action will deal with the transmission of bulk power from generation to bulk power delivery points and will not include interventions at the household connection level. However, the action will continue the EU initiative of engaging young women graduates as interns under the project's technical assistance component.

Human Rights

In all activities, as well the planning of implementation modalities, a human-rights based approach will be mainstreamed. The action will be taking into account the principles of non-discrimination, meaningful participation, transparency, accountability and respect to all human rights.

Disability

As per OECD Disability DAC codes identified in section 1.1, this action is labelled as D0. This implies that the action is not specifically targeting persons with disabilities, even if the latter will potentially benefit from the action as the improvement of power supply is expected to have a positive impact on the population a whole.

Reduction of inequalities

Low levels of electricity quality of service have hindered industrialisation and limited economic growth and has contributed to the high and stagnant rates of poverty and inequality. This action will improve the power supply to the northern region of Malawi and provide opportunities for business expansion as well as new investments that can contribute to job creation and reduced inequalities.

Democracy

There is no direct link between democracy and the probable interventions of this Action.

Conflict sensitivity, peace and resilience

There is no direct link between conflict sensitivity, peace and resilience and the probable interventions of this Action.

Disaster Risk Reduction

The Action will consider the high vulnerability of Malawi to extreme climate shocks, including storms and flooding, in the design of new infrastructure.

Other considerations if relevant

N/A

3.4 Risks and Lessons Learnt

Category	Risks	Likelihood	Impact	Mitigating measures
External environment	Insufficient interest of International Financing Institutions (IFIs) to finance project.	Low	High	Maintain dialogue with development banks who have already declared intention to co-finance the project (EIB and AfDB).

Planning processes and systems	Weak project management of ESCOM delays implementation.	Medium	Medium	Strengthen capacity of ESCOM through the Project Implementation Unit (PIU), in particular the monitoring and reporting capacities to facilitate early detection of implementation issues.
Planning processes and systems	Inadequate attention to planning the implementation of the Resettlement Action Plan (RAP) leads to delays.	Medium	Medium	At the implementation level, the project intervention logic will include outputs related to project preparatory activities such as the RAP design and implementation.
Lessons Learnt: Implementation of infrastructure projects under a blending operation and in indirect management has shown weaknesses in project management capabilities resulting in slow procurement and delayed implementation. Limited human resources are often stretched and bureaucracy slows approval processes. A recent ROM on the Malawi-Mozambique Interconnector noted weaknesses in ESCOM's monitoring and reporting capacities. It also highlighted implementation delays due to inadequate attention to planning the implementation of the RAP. A dedicated Project Implementation Unit (PIU), supported by a capacity building consultancy, will help improve the efficiency of project execution.				

3.5 The Intervention Logic

The Overall Objective of this action is to accelerate Malawi's transition towards an effective climate resilient energy sector.

It addresses the priority objectives of the Malawi 2063 by investing in key economic infrastructure through new transmission lines and substations. The underlying intervention logic for this action is the following:

With upgraded transmission lines it will be possible to serve the northern region with a more reliable and secure electricity supply that is energy efficient and facilitates new renewable energy investments. The construction of new substations and expansion of existing substations will greatly improve the capacity of the grid system enabling additional connections and meeting the current unserved industrial demand. Achieving these outputs, and with available concessional finance from development banks, will lead to the positive outcome of improved electricity quality of service linked to strong climate and aid to environment dimensions.

By building the technical and development capacities of ESCOM, they will have the acquired knowledge to develop new projects and expand the grid network further. Building their operation and maintenance capacities will ensure that they can maintain a high level of service on the transmission grid. Achieving these outputs, and with ESCOM's commitment to improve internal project development capacity and operational performance, will lead to the positive outcome of strengthened technical and operational capacity of ESCOM.

Achieving SO1 assumes that expansion of the renewable energy generation capacity takes place, while achieving SO2 assumes that the Government of Malawi continues to support reforms in the energy sector. ESCOM recognises that they have an important role to play within the SAPP and this is all the more important as they will soon be interconnected with Mozambique.

If these two outcomes are achieved, and there is continued commitment from both the Government and ESCOM, then the action will contribute to the desired impact of accelerating Malawi's transition towards an effective climate resilient energy sector. With improved reliability and security of supply to the northern region, there will be an increase in energy consumption as the current unserved energy demand is addressed. The project will also enable the connection of new renewable energy sources. This will lead to an increase in the proportion of population with access to electricity as well as increased economic activity, in particular in the agro-processing, mining and renewable energy generation sectors.

3.6 Logical Framework Matrix

This indicative logframe constitutes the basis for the monitoring, reporting and evaluation of the intervention.

On the basis of this logframe matrix, a more detailed logframe (or several) may be developed at contracting stage. In case baselines and targets are not available for the action, they should be informed for each indicator at signature of the contract(s) linked to this AD, or in the first progress report at the latest. New columns may be added to set intermediary targets (milestones) for the Output and Outcome indicators whenever it is relevant.

- At inception, the first progress report should include the complete logframe (e.g. including baselines/targets).
- Progress reports should provide an updated logframe with current values for each indicator.
- The final report should enclose the logframe with baseline and final values for each indicator.

The indicative logical framework matrix may evolve during the lifetime of the action depending on the different implementation modalities of this action.

The activities, the expected Outputs and related indicators, targets and baselines included in the logframe matrix may be updated during the implementation of the action, no amendment being required to the Financing Decision.

PROJECT MODALITY (3 levels of results / indicators / Source of Data / Assumptions - no activities)

Results	Results chain (a): Main expected results (maximum 10)	Indicators (a): (at least one indicator per expected result)	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	To accelerate Malawi's transition towards an effective climate resilient energy sector.	Proportion of population with access to electricity (SDG7.1.1)** (GERF 1.2) (disaggregated by sex) Renewable energy share in the total final energy consumption (SDG 7.2.1), (GERF 1.3)	18% (2022) 18% (2024)	80% (2030) 25% (2028)	National Planning Commission reports.	<i>Not applicable</i>
Outcome 1	1 Improved inclusive access to affordable, reliable, sustainable, and modern energy in the northern region of Malawi.	1.1 Number of people with new or improved access to electricity, disaggregated by sex and age, and by new or improved access (GERF 2.3). 1.2 Number of industries with new or improved access to electricity, disaggregated by new or improved access.	1.1 35,000 (2024) 1.2 100 (2024)	1.1 190,000 (2028) 1.2 120 (2028)	1.1 ESCOM reports 1.2 ESCOM reports	Expansion of the renewable energy generation capacity takes place.

Outcome 2	Improved ESCOM performance to provide quality and efficient electricity service.	2.1 System Minutes (SM) 2.2 Customer Average Interruption Duration Index (CAIDI). 2.3 Average Length of Power Outages (System Average Interruption Duration Index) (SAIDI).(Hours) 2.4 Frequency of Power outages (System Average Interruption Frequency Index (SAIFI) (Index number)). 2.5 Transmission losses	2.1 > 8 min (2021) 2.2 >25 hours (2021) 2.3 >50 hours (2021) 2.4 >20 (2021) 2.5 6% (2024)	2.1 < 8 minutes (2030) 2.2 <25 hours (2030) 2.3 <50 hours (2030) 2.4 <10 (2030) 2.5 3% (2030)	2.1- 2.5 ESCOM reports	The Government of Malawi continues to support reforms in the energy sector.
Output 1 relating to Outcome 1	1.1 Upgraded and climate-resilient transmission power network serving the northern region.	1.1.1 Length of transmission lines constructed or upgraded with EU support. (Km)	1.1.1 0 km (2024)	1.1.1 293 km (2028)	1.1.1 Project reports.	New transmission line proves reliable and resilient to climate events.
Output 2 relating to Outcome 1	1.2 Increased capacity of grid system in the northern region.	1.2.1 Number of energy infrastructure systems and assets that have been upgraded, otherwise strengthened or relocated for enhanced resilience or reduced exposure to extreme climate events (direct impacts) and their consequences (e.g. peak demand of electricity for cooling systems during heatwaves).	1.2.1 0 (2024)	1.2.1 5 (1 power line, 4 substations) (2028)	1.2.1 Project reports.	Transmission line and substations are well maintained and operated efficiently.
Output 1 relating to Outcome 2	2.1 Improved technical design and development capacities of ESCOM.	2.1.1 Number of professionals/staff trained or coached disaggregated, whenever possible and relevant, by sex and age and by type of organisation. (Designing and analysing power transmission towers, and in substation design).	2.1.1 0 (2024)	2.1.1 10 (2028)	2.1.1 Project reports.	ESCOM is committed to delivering a high quality of service, energy efficiency and climate resilience.
Output 2 relating to Outcome 2	2.2 Improved operation and maintenance capacities of ESCOM.	2.2.1 Number of professionals/staff trained or coached disaggregated, whenever possible and relevant, by	2.2.1 0 (2024)	2.2.1 15 (2028)	2.2 Project reports.	ESCOM is committed to delivering a high quality of service,

		sex and age and by type of organisation. (Power system protection, and live-line maintenance).				energy efficiency and climate resilience.
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4 IMPLEMENTATION ARRANGEMENTS

4.1 Financing Agreement

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

4.2 Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements implemented, is 60 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 Financing Decision and the relevant contracts and agreements.

4.3 Implementation of the Budget Support Component

N/A

4.4 Implementation Modalities

The Commission will ensure that the EU rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures⁴.

4.4.1 Contribution to the Africa Investment Platform

This contribution may be implemented under indirect management with the European Investment Bank.

4.4.2 EFSD+ operations covered by budgetary guarantees

A part of this action may be implemented through budgetary guarantees under indirect management. The budgetary guarantees would fall within the following priority area:

Priority area 1 – Green and resilient economic transformation, Specific objective 1.3: Developing economic infrastructure.

This section 4.4.2 is included for information purposes only. A comprehensive action plan covering all EFSD+ budgetary guarantees and the financing decision for the entire annual commitment under the EFSD+ budget line are adopted separately.

4.4.3 Changes from indirect to direct management mode (and vice versa) due to exceptional circumstances (one alternative second option)

In case the preferred modality referred to in section 4.4.1. (Contribution to the Africa Investment Platform) cannot be implemented due to circumstances outside of the Commission's control, an alternative implementation modality will be used. This alternative would be implementation in direct management via Grants, as follows:

(a) Purpose of the grant(s)

The grant would contribute to the two specific objectives: SO1: *-To improve inclusive access to affordable, reliable, sustainable, and modern energy in the northern region of Malawi* and SO2: *-To*

⁴ www.sanctionsmap.eu.

improve ESCOM performance to provide quality and efficient electricity service. It would also deliver the corresponding outputs outlined in section 3.1 above.

(b) Type of applicants targeted

The potential applicants would be international organisations with the potential to raise sufficient matching funds to finance and complete the project.

4.5. 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.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation).

4.6. Indicative Budget

Indicative Budget components	EU contribution (in EUR)	Third-party contribution, in currency identified
Implementation modalities – cf. section 4.4		
SO1: To improve inclusive access to affordable, reliable, sustainable, and modern energy in the northern region of Malawi. and SO2: To improve ESCOM performance to provide quality and efficient electricity service.	29 850 000	55 000 000
<i>Contribution to the Africa Investment Platform - cf. section 4.4.1 Blending grant</i>	<i>29 850 000</i>	<i>55 000 000</i>
Evaluation – cf. section 5.2 Audit – cf. section 5.3	150 000	-
Total	30 000 000	55 000 000

4.7 Organisational Set-up and Responsibilities

Under a blending operation, the project promoter will be ESCOM with its head office based in Blantyre. ESCOM will establish a Project Implementation Unit (PIU) responsible for the management of the implementation of the project. It will oversee the procurement of the PIU consultants, Engineering Procurement and Construction (EPC) contractor and supervision consultants. Regular project progress meetings with the stakeholders will be organised, initially quarterly and later monthly during construction. The stakeholders will include ESCOM, the financiers (EUD and indicatively the EIB and AfDB), the PIU consultants and supervision consultants.

Assistance on project management and capacity building measures related to management of the new infrastructure will be provided by the PIU consultants. The supervision consultants will oversee and monitor the EPC contractor and the implementation of the Environmental Social Management Plan (ESMP). The EPC contractor will be responsible for engineering, procurement and construction of the power lines and substations.

The rules and procedures of the entrusted entity will be applied to project implementation and disbursement. The IFI and EU funds will be made available to the Government of Malawi through the Ministry of Finance who will make IFI loan and EU grant funds available to ESCOM. Project invoices will be paid by ESCOM upon certification by the supervising engineer and endorsement by the IFI.

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action and may sign or enter into joint declarations or statements, for the purpose of enhancing the visibility of the EU and its contribution to this action and ensuring effective coordination.

5 PERFORMANCE MEASUREMENT

5.1 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 indicators, using as reference the logframe matrix (for project modality) and the partner's strategy, policy or reform action plan list (for budget support).

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).

Roles and responsibilities for data collection, analysis and monitoring: availability of relevant public statistics will be researched by the implementers for use as baselines and subsequently to measure progress at the end of the Action. Where such public data is not available the implementers will launch specific surveys at the start and end of the Action to measure progress. The cost associated to these possible surveys will be integrated in the relevant contracts. Whenever possible the project will harmonise its data collection with national partners systems. A joint monitoring system will be agreed wherever possible.

Gender equality and the human rights-based approach will be mainstreamed into the monitoring and evaluation of the project and indicators will be sex-disaggregated whenever possible.

5.2 Evaluation

Having regard to the nature of the action, an ex-post evaluation will be carried out for this action or its components via independent consultants, contracted by the Commission, and through a joint mission. It will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that this action represents a significant investment under a TEI.

The Commission shall inform the implementing partner at least 30 days in advance of the dates envisaged 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 may be shared with the partners and other key stakeholders following the best practice of evaluation dissemination. The implementing partner and the Commission shall analyse the

conclusions and recommendations of the evaluations and, where appropriate, apply the necessary adjustments.

Evaluation services may be contracted under a framework contract.

5.3 Audit and Verifications

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 audit or verification assignments for one or several contracts or agreements.

6 STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

The 2021-2027 programming cycle will adopt a new approach to pooling, programming and deploying strategic communication and public diplomacy resources.

In line with the 2022 “[Communicating and Raising EU Visibility: Guidance for External Actions](#)”, it will remain a contractual obligation for all entities implementing EU-funded external actions to inform the relevant audiences of the Union’s support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. This obligation will continue to apply equally, regardless of whether the actions concerned are implemented by the Commission, partner countries, service providers, grant beneficiaries or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU member states.

However, action documents for specific sector programmes are in principle no longer required to include a provision for communication and visibility actions promoting the programmes concerned. These resources will instead be consolidated in Cooperation Facilities established by support measure action documents, allowing Delegations to plan and execute multiannual strategic communication and public diplomacy actions with sufficient critical mass to be effective on a national scale.

Appendix 1 REPORTING IN OPSYS

A Primary Intervention (project/programme) is a coherent set of activities and results structured in a logical framework aiming at delivering development change or progress. Identifying the level of the primary intervention will allow for:

Articulating Actions or Contracts according to an expected chain of results and therefore allowing them to ensure efficient monitoring and reporting of performance;

Differentiating these Actions or Contracts from those that do not produce direct reportable development results, defined as support entities (i.e. audits, evaluations);

Having a complete and exhaustive mapping of all results-bearing Actions and Contracts.

Primary Interventions are identified during the design of each action by the responsible service (Delegation or Headquarters operational Unit).

The level of the Primary Intervention chosen can be modified (directly in OPSYS) and the modification does not constitute an amendment of the action document.

The intervention level for the present Action identifies as (tick one of the 4 following options);

Action level (i.e. Budget Support, blending)		
<input type="checkbox"/>	Single action	Present action: all contracts in the present action
Group of actions level (i.e. top-up cases, different phases of a single programme)		
<input type="checkbox"/>	Group of actions	Actions reference (CRIS#/OPSYS#):
Contract level		
<input checked="" type="checkbox"/>	Single Contract 1	Contribution Agreement (EUR 29 850 000) with the EIB.
Group of contracts level (i.e. series of programme estimates, cases in which an Action includes for example four contracts and two of them, a technical assistance contract and a contribution agreement, aim at the same objectives and complement each other)		
<input type="checkbox"/>	Group of contracts 1	