

**DOCUMENT OF THE EUROPEAN BANK  
FOR RECONSTRUCTION AND DEVELOPMENT**

Approved by the Board of Directors on 11 December 2024<sup>1</sup>

**EGYPT**

**NWFE ELECTRICITY GRID REINFORCEMENT  
PROJECT**

*[Redacted in line with the EBRD's Access to Information Policy]*

*[Information considered confidential has been removed from this document in accordance with the EBRD's Access to Information Policy (AIP). Such removed information is considered confidential because it falls under one of the provisions of Section III, paragraph 2 of the AIP]*

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<sup>1</sup> As per section 1.4.8 of EBRD's Directive on Access to Information (2019), the Bank shall disclose Board reports for State Sector Projects within 30 calendar days of approval of the relevant Project by the Board of Directors. Confidential information has been removed from the Board report.

For the avoidance of any doubt, the information set out here was accurate as at the date of preparation of this document, prior to consideration and approval of the project.



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## ABBREVIATIONS / CURRENCY CONVERSIONS

ACAP	Anti-Bribery and Corruption Action Plan	GIS	Gas insulated substation
BOO	Build own operate	GoS	Gulf of Suez
BOOT	Build own operate and transfer	IBA	Important bird area
CAGR	Compounded annual growth rate	IEA	International Energy Agency
Capex	Capital expenditure	IFRS	International Financial Reporting Standards
CBE	Central Bank of Egypt	IMF	International Monetary Fund
CO <sub>2</sub>	Carbon dioxide	LIBOR	London Inter-Bank Offered Rate
CO <sub>2</sub> eq	Carbon dioxide-equivalent	MoE	Ministry of Environment
CPI	Consumer price index	MoERE	Ministry of Electricity and Renewable Energy
DSCR	Debt service coverage ratio	MoIC	Ministry of International Cooperation
E&S	Environmental and social	NDC	Nationally Determined Contribution
EBIT	Earnings before interest and tax	NIP	Neighbourhood Investment Platform
EBITDA	Earnings before interest, tax, depreciation and amortization	NTS	Non-Technical Summary
ECEPP	EBRD Client e-Procurement Platform	NWFE	Nexus of Water, Food and Energy
EEHC	Egyptian Electricity Holding Company	NWFE-EP	Energy Pillar of the NWFE initiative
EETC	Egyptian Electricity Transmission Company	OHL	Overhead transmission line
EgyptERA	Egyptian Energy Regulatory Agency	OHS	Occupational Health and Safety
ESAP	Environmental and Social Action Plan	Opex	Operating expenditure
ESDD	Environmental and social due diligence	P2P	Private-to-private
ESG	Environmental, social and governance	PIU	Project Implementation Unit
ESIA	Environmental and Social Impact Assessment	PP&R	Procurement Policies and Rules
ESMS	Environmental and Social Management System	RE	Renewable energy
ESP	Environmental and Social Policy	RES	Renewable energy sources
EU	European Union	S&P	Standard and Poor's
EU TAM	EU Technical Assistance Meeting	SDG	Sustainable Development Goal
EURIBOR	Euro Interbank Offered Rate	SEP	Stakeholder Engagement Plan
EV	Electric vehicle	SOE	State-owned enterprise
FIDIC	International Federation of Consulting Engineers	SSF	Shareholder Special Fund
FiT	Feed-in tariff	STEM	Science, technology, engineering and mathematics
GFANZ	Glasgow Financial Alliance for Net Zero	TA	Technical assistance
KTACF	Korean Technical Assistance and Cooperation Fund	TAM	Technical Assistance Meeting
FX	Foreign exchange	TC	Technical cooperation
FY	Fiscal year	ToR	Terms of Reference
GCC	Gulf Cooperation Council	TSO	Transmission system operator
GDP	Gross domestic product	U.S. DoJ	United States Department of Justice
GECA	Gender Equality in Climate Action	VAT	Value-added tax
GHG	Greenhouse gas(es)	WACC	Weighted average cost of capital

### Units of Measurement and Currency Abbreviations

bn	Billion (currency)	m	Million (currency)
EGP	Egyptian pound	mm	Millimetre
EUR	Euro	MtCO <sub>2</sub> eq	Millions of tonnes of carbon dioxide-equivalent
GW	Gigawatt	MVA	Megavolt-amperes
GWh	Gigawatt-hour	MW	Megawatt
k	Thousand	MWh	Megawatt-hour
kg	Kilogram	Pt	Egyptian piastre (100 Pt = 1 EGP)
km	Kilometre	tCO <sub>2</sub> eq	Tonnes of carbon dioxide-equivalent
kV	Kilovolt	USD	United States dollar
kWh	Kilowatt-hour		

### CURRENCY EQUIVALENTS

(for the purposes of this paper and unless otherwise stated)

Currency Unit = EUR, EGP & USD

EUR/EGP = 53.26 USD/EGP = 48.93 EUR/USD = 1.086

## PRESIDENT'S RECOMMENDATION

This recommendation and the attached Report concerning an operation in favour of the Arab Republic of Egypt for the benefit of the Egyptian Electricity Transmission Company (the “Company” or “EETC”), the national electricity transmission company in Egypt, are submitted for consideration by the Board of Directors.

The operation consists of a sovereign loan to the Arab Republic of Egypt, through the Ministry of International Cooperation (“MoIC”) to be on-lent to EETC for an amount of up to EUR 170 million for the first grid investments to be delivered under the Energy Pillar of the Nexus of Water, Food & Energy (“NWFE”), consisting of two tranches as follows: (i) a committed first tranche of up to EUR 68 million to be co-financed by an investment grant of up to EUR 14 million from the EU Neighbourhood Investment Platform (“NIP”); and (ii) an uncommitted second tranche of up to EUR 102 million to be co-financed by an investment grant of up to EUR 21 million from the EU NIP.

The operation will enable EETC to upgrade and reinforce the electricity transmission grid in Egypt through (i) the upgrade of a 500 kV substation in the Cairo governorate that is crucial for the stability of the network and is directly linked to the closing of a gas-powered power plant (Shoubra El Kheima) as part of the decommissioning plan under the Bank-led Energy Pillar of the NWFE, and (ii) the construction of a 200 km high-voltage overhead transmission line (“OHL”) to evacuate c. 2.1 GW of renewable energy (“RE”) from the Gulf of Suez region (the “Project”).

The Project will entail the first grid investments as part of a USD 2 billion investment programme to be implemented by EETC under the Bank-led Energy Pillar of the NWFE, aimed at strengthening the grid to allow for the rollout of more RE capacity. Investments in EETC grid infrastructure are urgently needed to meet growing electricity peak load, which is estimated to reach 85 GW by 2035 and to integrate Egypt's ambitious renewable energy developments in the coming years. The expected transition impact of the Project stems from the *Green* quality through the reduction of transmission losses (from 3.7% to 3.4%) and connection of new RE capacities (c. 2.1 GW), resulting in 22,584 tCO<sub>2</sub>eq emissions reduction per annum. In line with the broader objectives of the NWFE initiative, the Project will also promote human capital development by improving EETC's ability to anticipate workforce-related changes in the face of the upcoming decarbonisation of the energy sector, thereby directing energy workers towards more sustainable career pathways (*Inclusive*). In addition, the Project is Gender SMART through EETC's commitment to strengthen the gender responsiveness of its climate actions.

Pre-signing technical cooperation (“TC”) support for this operation has been provided by the EBRD Shareholder Special Fund (“SSF”) and Korean Technical Assistance and Cooperation Fund (“KTACF”) to (i) conduct environmental and social due diligence on the Project and (ii) provide advanced procurement support. Post-signing TCs are expected to be financed by the SSF and Spain under the High Impact Partnership on Climate Action multi-donor fund (“HIPCA”) to support (i) implementation of Environmental and Social Action Plan (“ESAP”) (ii) promoting human capital development, (iii) forming a Project implementation unit, supported by an external PIU consultant to manage construction and operation and (iv) supporting EETC's progress in developing anti-bribery and corruption compliance measures.

I am satisfied that the operation is consistent with the Bank's Strategy for Egypt, the Energy Sector Strategy, the Green Economy Transition approach, the Equality of Opportunity Strategy, the Strategy for the Promotion of Gender Equality and with the Agreement Establishing the Bank.

I recommend that the Board approve the proposed loan substantially on the terms of the attached Report.

**Odile Renaud-Basso**

## BOARD DECISION SHEET

EGYPT - NWFE Electricity Grid Reinforcement Project – DTM 54716	
<b>Transaction / Board Decision</b>	Board approval <sup>2</sup> is sought for a sovereign loan of up to EUR 170m, consisting of two tranches: (i) a committed first tranche of up to EUR 68m and (ii) an uncommitted second tranche of up to EUR 102m, in favour of the Arab Republic of Egypt (the “Borrower”) to be on lent to the Egyptian Electricity Transmission Company (“EETC” or the “Company”), the transmission system operator in Egypt. [REDACTED]
<b>Client</b>	The Project implementation entity is EETC, the transmission system operator in Egypt. It is a 100% subsidiary of the Egyptian Electricity Holding Company (“EEHC”), the state-owned utility, which in turn is 100% owned by the Ministry of Electricity and Renewable Energy (“MoERE”).
<b>Main Elements of the Proposal</b>	<p><b>Transition impact:</b> The Project will (i) finance the upgrade of a 500 kV substation in Cairo and (ii) facilitate the integration of c. 2.1 GW of new renewable capacity into the Egyptian electricity system and reduce transmission losses, leading to reduction in GHG emissions by 22,584 tCO<sub>2</sub>eq per annum (<i>Green</i>). Together, these two project components will be the first grid investments under a USD 2bn investment programme to be implemented by EETC under the Energy Pillar of the NWFE initiative (“NWFE”), aimed at strengthening the grid to allow for the roll-out of more RE capacity. The Project will also promote human capital development in the energy sector by improving EETC’s ability to anticipate workforce-related changes in the face of the upcoming greening of the energy sector (<i>Inclusive</i>).</p> <p><b>Additionality:</b> The Bank will provide long-term financing unavailable from commercial banks. The Bank will play a critical role in the assessment and risk mitigation of E&amp;S impacts. Additionality is derived from the Banks’s conditionalities in the form of Environmental and Social Action Plan (“ESAP”) compliance. The Project is Gender SMART by improving EETC’s policies and practices in order to promote gender responsiveness of its climate actions.</p> <p><b>Sound banking:</b> The Project satisfies sound banking criteria due to the forecast standalone viability of EETC and the acceptable quality of the sovereign risk, driven by improving economic fundamentals and good long-term growth drivers.</p>
<b>Key Risks</b>	<p><b>Sovereign Creditworthiness Risk:</b> Egypt’s macroeconomic outlook, including the ability to meet foreign currency-denominated debt, has deteriorated since 2022 due to the global economic downturn, the war in Ukraine, and FX liquidity issues. Egypt’s credit rating is B- by Fitch, Caal by Moody’s, and B- by S&amp;P. <i>Mitigants:</i> (i) In 2024, the Central Bank of Egypt implemented a range of measures, including a floatation of the EGP; (ii) the government signed a host of agreements with the International Monetary Fund (“IMF”, USD 8bn), the EU (EUR 7bn), the World Bank (USD 6bn), along with USD 35bn of FDI signed with the United Arab Emirates before the EGP floatation. These sizable USD injections coupled with economic measures taken by the government are expected to steer the economy in the right direction and significantly improve Egypt’s FX liquidity. In light of the aforementioned measures, in November 2024 Fitch upgraded Egypt’s credit rating by one notch to B.</p> <p><b>Implementation risk:</b> Delays in implementing the Project and cost overruns are key risks should any unforeseen issues arise. <i>Mitigants:</i> (i) EETC’s experience in the implementation of similar projects; (ii) technical due diligence confirmed the adequacy of the implementation arrangements; (iii) a Project implementation unit will be formed; and (iv) all contracts financed from the Bank’s loan will be procured in accordance with the requirements of the Bank’s PP&amp;R for public sector operations.</p>
<b>Strategic Fit Summary</b>	The Project is fully aligned with the Energy Sector Strategy, the Green Economy Transition Approach, and the Strategy for Egypt, the Equality of Opportunity Strategy, and the Bank’s Strategy for the Promotion of Gender Equality.

<sup>2</sup> Article 27 of the AEB provides the basis for this decision.

## ADDITIONAL SUMMARY TERMS FACTSHEET

<b>EBRD Transaction</b>	<p>Sovereign loan of up to EUR 170m to the Arab Republic of Egypt (the “Borrower”), to be on-lent to the state-owned Egyptian Electricity Transmission Company (“EETC”). A Loan Agreement will be in place with the Borrower, and a Project Agreement with EETC. The Project will be co-financed by investment grants in aggregate of up to EUR 35m from the EU Neighbourhood Investment Platform (“NIP”) as follows: (i) EUR 20m was approved in 2019 and is being repurposed for this Project, and (ii) an additional EUR 15m that was approved by the EU NIP board in December 2023.</p> <p>The loan is expected to consist of two tranches, as follows:</p> <ul style="list-style-type: none"> <li>• <b>First Tranche</b> – a committed tranche of up to EUR 68m, to be co-financed by an investment grant of EUR 14m by the EU NIP to finance Component A of the Project<sup>3</sup>; and</li> <li>• <b>Second Tranche</b> – an uncommitted tranche of up to EUR 102m, to be co-financed by an investment grant of up to EUR 21m by the EU NIP to finance Component B of the Project<sup>2</sup>. [REDACTED]</li> </ul>
<b>Existing Exposure</b>	Total amount of sovereign portfolio debt: EUR 1,908m [REDACTED].
<b>Maturity / Exit / Repayment</b>	Tenor of up to 20 years [REDACTED]
<b>Potential AMI eligible financing</b>	N/A
<b>Use of Proceeds - Description</b>	<p>The EBRD financial package will fund:</p> <ol style="list-style-type: none"> <li>The upgrade of a 500 kV substation in the Cairo governorate that is crucial for the stability of the network and is directly linked to the closing of a gas-powered power plant (Shoubra El Kheima) under Egypt’s NWFE initiative (“First Tranche”, “Component A”), and</li> <li>The construction of a 200 km high-voltage overhead transmission line (“OHL”) to evacuate c. 2.1 GW of renewable energy (“RE”) from the Gulf of Suez region (“Second Tranche”, “Component B”) (together, the “Project”).</li> </ol> <p>The proceeds of the loan will be used to contribute to the security of the energy supply for Egypt and will foster economic growth by helping to increase the evacuation capacity for renewables as targeted under the NWFE initiative, optimize power flows and increase transmission to meet the increase in demand and reduce transmission losses.</p> <p>The use of proceeds will be monitored through the Project Implementation Unit (“PIU”) consultant and the supervision by the Bank of the procurement process. Procurement arrangements are described in more detail below in <i>Annex 3</i>.</p>
<b>Investment Plan</b>	[REDACTED]
<b>Financing Plan</b>	[REDACTED]
<b>Key Parties Involved</b>	<ul style="list-style-type: none"> <li>• EBRD – Lender;</li> <li>• EU NIP – Investment grant provider;</li> <li>• The Arab Republic of Egypt (through the MoIC) – Borrower; and</li> <li>• EETC – Project Entity.</li> </ul>

<sup>3</sup> The Project Components are explained in more detail in Use of Proceeds section.



Conditions to subscription / disbursement	[REDACTED]
Key Covenants	[REDACTED]
Security / Guarantees	Sovereign loan to the Arab Republic of Egypt.
Other material agreements	<ul style="list-style-type: none"> <li>• Loan Agreement between the Bank and MoIC</li> <li>• Project Agreement between the Bank and EETC;</li> <li>• Subsidiary Loan Agreement between MoIC and EETC; and</li> <li>• EU Grant Agreement and Delegation Agreements between the Bank and the Borrower for the EU NIP grant.</li> </ul>
Associated Donor Funded TC and Blended Concessional Finance	<p><b>A. Technical Cooperation (“TC”)</b></p> <p><i>Project Preparation:</i></p> <p><b><u>Pre-signing</u></b></p> <ol style="list-style-type: none"> <li>1. <u>Environmental and Social Scoping Assignment:</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The Bank engaged a consultant to identify key risks, impacts and opportunities related to the OHL.</li> <li>• <u>Approval &amp; Funding:</u> EUR 65,000 provided by EBRD SSF.</li> </ul> </li> <li>2. <u>Environmental and Social Due Diligence:</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The environmental and social due diligence for the substation was supported by this TC assignment.</li> <li>• <u>Approval &amp; Funding:</u> EUR 45,000 provided by EBRD SSF.</li> </ul> </li> <li>3. <u>Autumn Avifauna Survey of Migratory Soaring Birds:</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The bird migration survey for the OHL is supported by TC assignment.</li> <li>• <u>Approval &amp; Funding:</u> EUR 65,000 provided by EBRD SSF.</li> </ul> </li> <li>4. <u>Advance Procurement Support:</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The Bank engaged a consultant to support EETC in the procurement process prior to establishing the PIU unit.</li> <li>• <u>Approval &amp; Funding:</u> EUR 72,750 provided by EBRD SSF.</li> </ul> </li> <li>5. <u>Environmental and Social Impact Assessment:</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The environmental and social due diligence on the OHL will be supported by this TC assignment.</li> <li>• <u>Approval &amp; Funding:</u> EUR 400,000 provided by Korean Technical Assistance and Cooperation Fund (“KTACF”).</li> </ul> </li> </ol> <p><b><u>Post-signing</u></b></p> <ol style="list-style-type: none"> <li>6. <u>Support for implementation of ESMS</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> To provide individualised capacity building and monitoring support to the client in line with the requirements of the ESP, including the development of an appropriate ESMS.</li> <li>• <u>Approval &amp; Funding:</u> EUR 300,000 funded by Spain under the High Impact Partnership on Climate Action multi-donor fund (“HIPCA”).</li> </ul> </li> <li>7. <u>Promoting Human Capital at EETC</u> <ul style="list-style-type: none"> <li>• <u>Main objective:</u> The TC will guide EETC in improving the strategic capacity of its HR function and the gender responsiveness of its climate actions.</li> </ul> </li> </ol>



	<ul style="list-style-type: none"> <li>• <u>Approval &amp; Funding</u>: EUR 220,000 provided by SSF.</li> </ul> <p>8. <u>Project Implementation Support</u></p> <ul style="list-style-type: none"> <li>• <u>Main objective</u>: The TC entails Project implementation consultancy support to support the PIU, which will include technical experts with the main focus on supervision and monitoring of the construction works, its completion and operations.</li> <li>• <u>Approval &amp; Funding</u>: EUR 2,000,000 is expected to be provided by SSF.</li> </ul> <p>9. <u>Focused Anti-Corruption Action Plan</u></p> <ul style="list-style-type: none"> <li>• <u>Main objective</u>: The TC will support EETC's progress in developing anti-bribery / corruption compliance measures.</li> <li>• <u>Approval &amp; Funding</u>: EUR 100,000 is expected to be provided by SSF.</li> </ul> <p><u>Client contributions</u>: The above TC assignments are non-reimbursable TC required to prepare and implement the Project. As the Bank is the main beneficiary of these TC assignments, the EETC is not expected to contribute to support the TC assignments in accordance with Bank's Client Contribution Policy.</p> <p><b>B. Blended Concessional Finance (non-TC)</b></p> <p>10. Capex investment grant.</p> <ul style="list-style-type: none"> <li>• <u>Main objective</u>: The investment grant will be used to finance Capex.</li> <li>• <u>Approval &amp; Funding</u>: EUR 35m in aggregate to be provided by the EU NIP. The full investment grant is fully approved by the EU.</li> </ul>
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[REDACTED]

## INVESTMENT PROPOSAL SUMMARY

### 1. STRATEGIC FIT AND KEY ISSUES

#### 1.1 STRATEGIC CONTEXT

Despite Egypt's impressive progress in installing power capacity from renewable energy ("RE"), power generation still heavily relies on hydrocarbons, with around 90% of the installed capacity corresponding to thermal plants. With c. 6.1 GW as of 2023, RE represents c. 18% of peak load. In 2023, peak demand reached 34 GW and projected to increase to 70 to 85 GW by 2035. Much of this capacity is expected to come from RE, located in areas of high resource such as the deserts of Upper Egypt (for solar and wind) and the Gulf of Suez (for wind), where there is currently limited transmission infrastructure.

The Project will help unlock Egypt's RE potential by tackling one of the main obstacles impeding the rollout of more renewables. Expansion of Egypt's electricity transmission and distribution networks is a key challenge in reaching the country's electricity sector strategy's objectives. The ageing infrastructure results in high frequency of transmission failures and presents a bottleneck for integrating intermittent wind and solar power. With a more efficient power system, EETC could deliver more electricity to end-users without generating additional compensating power, thereby enhancing the sector's financial viability. A more efficient power system would also result in less demand for fossil-fuel-generated power, thus reducing GHG emissions.

During COP27 in Sharm El Sheikh, the Egyptian government announced the Bank-led Energy Pillar of the NWFE initiative (NWFE-EP). On the back of extensive policy dialogue to support the Egyptian government's ambition in the RE sector, the NWFE-EP has five main components: (1) comprehensive institutional support for the decommissioning of 5 GW of existing inefficient fossil fuel capacity; (2) the roll-out of 10 GW of new RE capacity to be developed by the private sector (the Bank-financed ACWA Kom Ombo 200 MW solar and Gulf of Suez II 500 MW windfarm are the first projects delivered under this component); (3) financing the required network investments to absorb more RE capacity, connecting hydrogen facilities, and maintaining system security; (4) a Just Energy Transition Program to ensure that those whose jobs and livelihoods are affected by the shift from fossil fuels to renewables are protected by promoting human capital development across the energy sector; and (5) a targeted plan to support supply chain development for RE technologies and services. The NWFE-EP is expected to lead to GHG emission reductions of around 17 MtCO<sub>2</sub>eq per annum (resulting from the closure of the fossil fuel assets and the displacement of other fossil-fuelled generation by the new renewable electricity capacity) and result in savings of more than 2 bcm per annum of natural gas. The NWFE initiative is detailed in *Annex 6*.

The MoERE developed a USD 2bn investment programme to 2028 to strengthen the transmission network and enhance grid stability as the system shifts to a new model based on increasing volumes of intermittent RE. EETC will implement the programme, covering transmission line extensions and rehabilitation, substations, digital systems required to distribute the new RE generated and energy storage facilities.

The Project will be the first grid investment to be delivered under the NWFE-EP, supporting network transmission infrastructure. The implementation of the activities will provide a fully rehabilitated 500kV substation in Cairo with state-of-the-art energy efficiency improvements

that are crucial for the stability of the network, reducing grid losses by around 4%. The substation upgrade will allow for the network to deliver power from RE sources to the Nile delta region after the closure of the Shoubra El Kheima plant, one of the gas-powered power plants identified for decommissioning under the NWFE-EP. The Project will also enable the construction of a 200 km OHL required to evacuate c. 2.1 GW of RE from the Gulf of Suez (“GoS”) region, where several wind projects are currently under construction. The Project will reduce Scope 2 GHG emission by 22,584 tCO<sub>2</sub>eq, relieve overloading on neighbouring substations, improve the voltage profile, increase system security and ensure stability and security of supply.

The Project is aligned with the Energy Sector Strategy, the Green Economy Transition Approach, and the Strategy for Egypt; with reference to the deployment of RE technologies, improving the quality and sustainability of electricity supply, and supporting energy efficiency investments. The Project is also in line with the Bank’s Equality of Opportunity Strategy and the Strategy for the Promotion of Gender Equality, through the EETC committing to strengthen the gender responsiveness of its climate actions and to contribute to the human capital development of the energy sector. The Project contributes to several UN Sustainable Development Goals (“SDGs”), namely: SDG 7. Clean and Affordable Energy, SDG 8. Decent Work and Economic Growth for all Women and Men, SDG 9: Industry, Innovation and Infrastructure, and SDG 13. Climate Action.

## 1.2 TRANSITION IMPACT

The table below sets out the TI Objectives and details of the Project. The relevant Monitoring Indicators and timing for their delivery are shown in *Section 2*.

### Primary Quality: Green

Obj. No.	Objective	Details
1.1	<i>The percentage of EBRD use of proceeds that supports a green economy transition and therefore qualifies as GET finance exceeds 50%</i>	All of EBRD's use of proceeds qualify as GET finance. 40% of the proceeds of the loan will be used to finance a high-voltage substation in the Cairo governorate in Egypt, which will lead to a reduction in transmission losses. 60% of the proceeds of the loan will be used to finance part of EETC’s network investment programme, specifically the 200 km OHL to evacuate c. 2.1 GW of RE from the GoS region, where several wind projects are currently under construction.

### Secondary Quality: Inclusive

Obj. No.	Objective	Details
2.1	<i>FUTURE OF WORK: The Project improves the quality, productivity and sustainability of work, expanding the horizons for human capital with demonstrably moderate need and robust effectiveness</i>	The Project will enhance the capacity of EETC to actively contribute to a ‘just’ transition by improving the Company’s ability to anticipate workforce-related changes in the face of the upcoming decarbonisation of the energy sector, thereby directing energy workers towards more sustainable career pathways. This will involve supporting the development of a forward-looking vision for EETC’s Human Resources (“HR”) function, thereby improving the capacity of EETC to plan ahead and be fit for the future. This initiative will ultimately improve the quality of the working environment for EETC employees by creating more transparent talent management solutions and market-relevant skills profiles.

		<p>The Project will develop a Human Capital Development Plan for the Company, including an analysis of the employment implications of the national green energy transition and an outline of the related skills development requirements. The steps will comprise proactively identifying the Company's medium to long-term business needs, including in terms of forecasting skills gaps, understanding issues linked to both the supply and demand of talent, and assessing the relevance of different activities, occupations and competences. Accordingly, to start with, a forward-looking sectoral skill needs assessment will identify the main trends that are going to affect the energy market in the near future. These trends will then be mapped into relative job and skills profiles, which will be needed to support the transition.</p> <p>Considering that capacity-building support on strategic workforce planning is lacking across Egyptian state-owned enterprises ("SOEs") and taking into account the data gaps that local institutions face when assessing future skills and employment needs, this initiative will help the Company surpass national norms on workforce management.</p>
2.2	<p><b>FUTURE OF WORK:</b>  <i>The Project delivers inclusive business policies, practices or standards at the client level with verifiable commitment within 1-2 distinct behavioural change areas</i></p>	<p>The Project will inform the content and introduce two new/ updated Occupational Skills Standards in the energy transmission field (for emerging roles such as modernisation engineers of energy equipment, specialists in integrated design of power transmission system or dispatchers of renewable energy).</p> <p>Based on the Human Capital Development Plan, the various skills profiles will be prioritised into a list of top "key profiles" (one to two profiles per trend) that can be combined into a selection of new occupational skills standards (to be multi-layered by level of expertise).</p> <p>These will be developed in line with EETC's needs and broader industry requirements and in collaboration with relevant sectoral stakeholders and ministries. This work is of particular relevance in the energy sector where there is a need to define what new qualifications and skills will be required to support the green economy transition. The introduction of high quality, comparable and verifiable skills standards is a critical element (and best practice model) of national skills policy. These standards can enable education institutions to teach relevant skills in line with employer's needs -ultimately enhancing the employability of labour market entrants.</p>

**Delivery risks:** [REDACTED]

### 1.3 ADDITIONALITY

Identified triggers	Description
No triggers identified	n/a
Additionality sources	Description of additionality sources
<p><b>Financing Structure</b></p> <p>EBRD offers financing that is not available in the market from commercial sources on reasonable <b>terms and conditions</b>, e.g. a longer grace period. Such financing is necessary to structure the project.</p>	<p>The EBRD financing brings long-term financing that is unavailable from commercial banks in Egypt at the tenor required for infrastructure projects.</p>

<p>EBRD offers a <b>tenor</b>, which is longer than available to the client in the market on reasonable terms and conditions.</p>	
<p><b><u>Risk Mitigation</u></b> EBRD helps the client to mitigate <b>carbon transition risks</b> and take climate action, such as to move along a low carbon transition pathway.</p> <p>EBRD helps the client to mitigate <b>environmental, social and governance (“ESG”) risks</b> through identification of risks related to the depletion of natural capital assets, raw materials and water availability, etc., and to manage risks</p>	<p>The EBRD financing brings technical and institutional experience in electricity transmission projects.</p>
<p><b><u>Standard-setting: helping projects and clients achieve higher standards</u></b> Client seeks/makes use of EBRD expertise on <b>higher environmental standards</b>, above ‘business as usual’ (e.g. adoption of emissions standards, climate-related ISO standards etc.).</p> <p>Client seeks/makes use of EBRD expertise on <b>best international procurement standards</b>.</p>	<p>The Bank will ensure compliance with international environmental standards and procedures during project implementation phase.</p> <p>The use of proceeds will be monitored through the PIU consultant, and the supervision by the Bank of the procurement process.</p>
<p><b><u>Standard-setting: helping projects and clients achieve higher standards</u></b> Gender SMART: <b>Client seeks/makes use of EBRD expertise for the adoption of gender standards and/or equal opportunities action plans.</b></p>	<p>To enhance the role of women in the traditionally male-dominated energy sector of Egypt, the Project will support EETC in strengthening the gender responsiveness of its climate actions by employing the Gender Equality in Climate Action (“GECA”) Accelerator. The GECA Accelerator is a toolkit for accelerating positive gender impacts in climate strategies in nine 9 critical focus areas/ components.<sup>4</sup> The self-assessment diagnostic tool for gender gaps completed by the EETC demonstrated that EETC is successful in two components (i.e. implementing ad-hoc gender specific interventions, and engaging in networking opportunities), and shows some positive features along four other components (i.e. employing i. basic gender analysis, ii. sex-segregated data and gender indicators, iii. gender targets and objectives, and iv. accountability and incentives for meeting these targets). [REDACTED]</p> <p>Thus, the EBRD will support EETC in addressing the gaps identified above through technical assistance. This will focus on setting up a gender inclusive monitoring and tracking framework and an inclusive stakeholder engagement mechanisms for climate actions. It will also provide capacity building for the Company’s management and relevant teams on gender responsive budgeting, which will result in improved gender equality standards within the EETC.</p>

## 1.4 SOUND BANKING – KEY RISKS

<sup>4</sup> It is a joint product by the Egyptian Ministry of International Cooperation, African Development Bank, European Bank for Reconstruction and Development and Agence Française de Développement

Risks	Probability / Effect	Comments
Sovereign creditworthiness risk	Medium / High	<p>The transaction comprises a sovereign loan to Egypt and the Bank will directly depend on Egypt's sovereign creditworthiness. Egypt's challenging macroeconomic outlook and relatively limited debt capacity have been exacerbated since 2022 due to the country's global economic downturn and FX liquidity issues. International credit rating institutions have downgraded Egypt's credit outlook/rating in light of the increasing financing needs and lack of clarity on additional external USD funding. Moody's downgraded Egypt's credit rating from B3 to Caa1, with a stable outlook in October 2023 (and subsequently to a negative outlook in January 2024). S&amp;P downgraded Egypt's credit rating from B to B-, with a stable outlook in October 2023. The risk is aggravated by Egypt's high levels of public debt.</p> <p><u>Mitigants:</u></p> <ul style="list-style-type: none"> <li>• On 6 March 2024, the Central Bank of Egypt implemented a range of measures, including a floatation of the EGP and a 600 bps increase in interest rates;</li> <li>• A host of agreements were announced with the International Monetary Fund ("IMF", USD 8bn), the EU (EUR 7bn), the World Bank (USD 6bn), along with USD 35bn of FDI signed with the United Arab Emirates before the EGP floatation. These sizable USD injections coupled with economic measures taken by the government are expected to steer the economy in the right direction and significantly improve Egypt's FX liquidity. As a result, credit agencies (S&amp;P and Moody's) have upgraded the outlook on Egypt to positive in the past period.</li> <li>• The government has embarked on a comprehensive privatisation program that entails the sale of prime state-owned assets. This will achieve two main objectives: (1) generate c. USD 7bn of liquidity up to June 2025, and (2) minimize government presence in the economy as part of the broader structural reforms;</li> <li>• The government has demonstrated commitment to economic reforms, including in such areas as subsidy and income tax, investment law, VAT on goods and services, competitive neutrality and levelling the playing field. The switch to renewables results in net savings on a fiscal level due to its cheap cost relative to thermal generation, which would also free up more natural gas for exports, hence why the government prioritises decarbonisation of the electricity sector. Moreover, the sector's positive track record of meeting its commitments to international lenders and investors provides further mitigation.</li> <li>• In light of the aforementioned measures, in November 2024 Fitch upgraded Egypt's credit rating by one notch to B from B-.</li> </ul>
Implementation risk	Medium / Low	<p>Delays in implementing the Project and cost overruns are key risks should any unforeseen issues arise.</p> <p><u>Mitigants:</u></p> <ul style="list-style-type: none"> <li>• EETC's experience in the implementation of similar projects.</li> <li>• Technical due diligence confirmed the adequacy of the selected technologies and cost estimates include adequate contingencies [REDACTED] in case of delays and cost overrun. Technical due diligence verified the guarantees, warranties and implementation procedures in place;</li> <li>• Advanced procurement consultant to support the EETC with the preparation of procurement documents and to manage the procurement</li> </ul>



		<p>process in the Bank's EBRD Client e-Procurement Platform ("ECEPP"); and</p> <ul style="list-style-type: none"> <li>• Project implementation consultancy support will be put in place to support the PIU, which will include technical experts with the main focus on supervision and monitoring of the construction works, its completion and operations.</li> </ul>
Currency risk	Medium / Low	<p>The EBRD loan will be denominated in EUR, while the revenues of EETC are in EGP. The currency crisis and FX shortage in Egypt exacerbate this risk.</p> <p><u>Mitigants:</u></p> <ul style="list-style-type: none"> <li>• The sovereign nature of the loan ultimately mitigates this risk [REDACTED]</li> </ul>

## 2. MEASURING / MONITORING SUCCESS

<i>Overall objectives of project</i>	<i>Monitoring benchmarks</i>	<i>Implementation timing</i>
- Good financial and operational performance	- Growth in revenues, profitability and cash flows	- During implementation
- On-time project implementation	- Completion according to the timeline and within the budget	- During implementation

### Transition Impact Monitoring Indicators

#### Primary Quality: Green

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
1.1	CO <sub>2</sub> e emissions reduced (tonnes/year)	The Project will lead to GHG emissions savings of 22,584 tCO <sub>2</sub> eq per year, split into (i) 4,446 tCO <sub>2</sub> eq related to the substation component and (ii) 18,138 tCO <sub>2</sub> eq related to the OHL component.	0	22,584	[REDACTED]
1.2	New or updated GET technology or product leading to renewable energy generation introduced	The Project will finance two key transmission grid investments contributing to introduction of RE generation and savings from energy efficiencies: 1) Upgrade of a 500 kV substation; and 2) Construction of the 200 km OHL to evacuate c. 2.1 GW of RE from the GoS region, where several wind projects are currently under construction.	No	Yes	[REDACTED]
1.3	New or updated GET technology or product leading to energy efficiency introduced	The upgrade of the Cairo 500 kV substation is expected to lead to a reduction in the grid transmission losses from 3.7% to 3.4% at the completion of the Project.	No	Yes	[REDACTED]

#### Secondary Quality: Inclusive

Obj. No.	Monitoring indicator	Details	Baseline	Target	Due date
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1.1	Practices of the relevant stakeholder improved (job quality)	The Project will support the development and implementation of a new Human Capital Development Plan aimed at identifying and strengthening key skills needed by EETC workers to support the energy transition.	No	Yes	[REDACTED]
1.2	Number of employees with higher quality jobs (earning quality, labour market security and or quality of working environment)	The Project will increase the quality of the working environment for 26,338 EETC employees by improving the transparency and future-fitness of EETC's talent management solutions	No	Yes	[REDACTED]
1.3	Recommended policy or strategy or regulatory framework/ standard agreed by relevant stakeholder(s)	The Project will inform the content of and introduce two new Occupational Skills Standards in the energy transmission field together with relevant stakeholders.	No	Yes	[REDACTED]

### Additional Indicators

Indicator type	Monitoring indicator	Details	Baseline	Target	Due date
Advisory & Policy Indicators	Practices of the relevant stakeholder improved (equal opportunity practices of the client) [Donor TC]	<p>The Project will support EETC in upgrading its inclusive stakeholder engagement practices in relation to climate action, and in setting up a gender responsive monitoring and tracking framework for climate action.</p> <p>It will also raise awareness among management and relevant staff on gender responsive budgeting, through designing a new initiative on gender responsive budgeting.</p>	No	Yes	[REDACTED]

## 3. KEY PARTIES

### 3.1 ARAB REPUBLIC OF EGYPT

Egypt's macroeconomic outlook, including its ability to meet foreign currency-denominated debt, has deteriorated since 2022 due to the global economic downturn, the war in Ukraine, and FX liquidity issues. The EGP has lost c. 58% of its value against the USD since last year following the EGP floatation, coupled with significant inflationary pressure reaching a record high. Growth slowed down to 2.4% in FY24 (fiscal year 2023/24), from 3.8% the preceding year, due to an acute FX shortage and weak investor confidence. GDP growth is forecasted to recover to 4% in FY25 as the economy adjusts to the new macro environment and domestic and foreign investors watch for progress on the government's reform programme.

Currency and fiscal pressures, as well as tighter global and domestic monetary conditions, escalated Egypt's debt challenges with servicing costs expected to absorb 50-60% of the FY25 budget and debt-to-GDP at 96% as at YE-FY24, and triggered a downgrade in credit agency ratings (B- by Fitch with a stable outlook, Caa1 by Moody's with a stable outlook (and subsequently a negative outlook) and B- by S&P with a stable outlook), although the outlook has been upgraded to positive following the EGP floatation and signing of Ras El Hekma FDI deal as well as the agreements with the IMF, EU and World Bank, which coupled with the

move to a flexible exchange rate and the tightening of monetary policy have reduced external vulnerability and financing risks, and improved external liquidity. The government needs to remain strongly committed to the reform agenda to ensure the economy is able to transition through this challenging period.

Egypt has high levels of public debt, although some debt metrics are expected to improve in the current period due to fiscal consolidation and the allocation of 50% of Ras El Hekma proceeds towards debt repayment. The budget deficit stood at 3.6% of GDP in FY24 and debt-to-GDP is expected to fall to 83% in FY25. The government has announced a budgetary limit of EGP 1.0 trillion (USD 20.4 billion) on investments in FY25 (also reflected in the IMF programme) and passed a law to consolidate all public investment under the government budget (presently estimated to account for only half of such investment).

### 3.2 EETC

EETC is the state-owned owner and operator of Egypt's medium- and high-voltage (from 66 kV to 500 kV) network. Its network comprises transformers with a total capacity of 190,310 MVA and more than 56,000 km of transmission lines. It is responsible for receiving almost all generated power and supplying it to Egypt's nine distribution companies and a small number of large industrial consumers who connect directly to the transmission network. EETC has more than 25,000 employees.

EETC has a role in Egypt's energy sector as the sole buyer of all generated electricity, which, in turn, it sells to the nine distribution companies for onward sale to end users. Currently, only end-user tariffs are regulated.

EETC was historically a 100% subsidiary of EEHC, which is, in turn, 100% owned by the MoERE. In accordance with the 2015 Electricity Law, EEHC and EETC are in the process of being unbundled. By 2020/2021, Egypt had removed nearly 90% of subsidies on the generation/electricity side. Originally anticipated to be completed by 2021/22, the unbundling is now expected to be completed in 2025/26. The delay in subsidy reform is partly due to the macroeconomic downturn that came as a result of the Covid-19 pandemic, followed by the war in Ukraine, which disrupted the reform plan and created a complex and challenging socio-political environment in Egypt to allow for the full removal of subsidies according to the original timeline. The unbundling effort is required to be lead in parallel with the subsidy reform, which is a pre-condition for an electricity market to be fully open and operational. Considering the macroeconomic environment, this remains in the near- to medium-term plan as stipulated in the electricity law.

The target model for EETC is as follows:

- It will be the owner and operator of the transmission network, responsible for providing access to the network on a transparent and objective basis. It will receive a transmission tariff set by the Egyptian Energy Regulatory Agency (“EgyptERA”) for providing these services. It will also be responsible for procuring balancing and ancillary services to ensure system stability and security.
- It will be responsible for procuring electricity wholesale for those consumers whose prices remain regulated. It will then sell that electricity to distribution companies for onward sale to those consumers.

- It will be the market operator responsible for administering a bilateral contracting market between producers, traders, suppliers and those consumers whose prices are no longer regulated.

#### **4. MARKET CONTEXT**

Egypt's power sector is heavily state-dominated. Although legally unbundled, the sector is not yet unbundled at the ownership, financial or operational levels. All activities fall under the EEHC, which exercises considerable operational control over its subsidiaries. Private participation in the sector traditionally has been limited, with the MoERE being the principal policy agency in the electricity sector, acting as a legal owner of state-owned electricity assets through EEHC and New and Renewable Energy Authority ("NREA"), which is responsible for all of Egypt's operating wind capacity.

Egypt is expected to remain a power sector investment hotspot on the African continent, with strong renewables capacity and generation growth over the coming decade. Robust government support, declining energy subsidies and vast natural solar and wind power potential are expected to make Egypt an attractive destination for private renewables investors, boosting competitiveness in the market.

In parallel, the country has been investing in modernising and expanding its power transmission infrastructure, intending to become an energy hub and expand its potential consumer base into parts of Africa, the Middle East and Europe. To this end, Egypt has devised a plan until 2035, to replace damaged and hazardous power lines with new high-efficiency ones. In addition, Egypt's grid is currently linked with Jordan, Palestine, Libya and Sudan, and there are regional grid interconnection projects with Saudi Arabia, Iraq, and Jordan. Egypt plans to export around 15 GW of excess capacity to European, African, and GCC countries. This excess power generation and vast solar and wind power potential can make it an attractive market for renewable hydrogen production, bringing in further foreign investment and supporting continued growth in the renewables sector through the long term.

#### **5. FINANCIAL / ECONOMIC ANALYSIS**

##### **5.1 FINANCIAL PROJECTIONS**

[REDACTED]

##### **5.2 SENSITIVITY ANALYSIS**

[REDACTED]

##### **5.3 PROJECTED PROFITABILITY FOR THE BANK**

[REDACTED]

## 6. OTHER KEY CONSIDERATIONS

### 6.1 ENVIRONMENT

Category A (2019 ESP) The substation and overhead transmission line components of the Project have undergone separate independent due diligence processes as they are in different locations and associated with different environmental & social risks. The upgrade of the Cairo 500 kV substation is categorised B; and the construction of the 180 km overhead transmission line (OHL) is categorised A under the 2019 ESP.

**ESDD findings of the Cairo 500 Substation:** The upgrade and expansion of the existing substation is associated with environmental and social impacts that are readily identifiable and which can be managed and mitigated through the provision of targeted mitigation measure. Independent ESDD has been undertaken through a site visit, meetings with EETC, and a documentation review. The upgrade and expansion works are mainly associated with occupational health and safety risks. EETC demonstrated good knowledge of basic health and safety principles, with a focus on electrical safety and regular OHS trainings are delivered to all staff. Discussions on other health and safety related topics, such as working at height, lifting, chemical storage demonstrated room for improvement. EETC will need to ensure that the EPC Contractor retained to implement the expansion works has a project specific ESMS in line with ISO14001 and 45001 standards. The ESDD has shown that EETC does not have a formalised Environmental and Social Management System, despite having a few E&S Management Procedures in place both at the corporate and the substation levels. The present E&S resources and organisational capacity need to be strengthened, and technical assistance will be necessary for capacity building and to support EETC with the implementation of the mitigation measures identified. An Environmental and Social Action Plan (ESAP) has been developed for Tranche 1 and has been agreed with EETC. The ESAP focuses on the development and implementation of a full Environmental and Social Management System and an Occupational Health and Safety Management System at a corporate level and enhancing the procedures at the substation level in line with international standards. Other elements include obtaining all relevant permits, including the local Environmental Impact Assessment studies; and implementing the Stakeholder Engagement Plan developed by the ESDD consultants.

**ESDD findings of the OHL:** The high voltage OHL is categorised A as it passes through two important bird areas and a protected area in the Gulf of Suez (GoS). The GoS is also located on a major migratory bird flyway which has been a key consideration of the Bank's wind power projects in the area. An Environmental and Social Impact Assessment (ESIA) has been undertaken by independent consultants, which include avifauna surveys of the Autumn 2023, Spring 2024 and Autumn 2024 migratory seasons. The ESIA together with a Stakeholder Engagement Plan, Non-Technical Summary, a Critical Habitat Assessment (CHA) and E&S Action Plan are disclosed in Arabic and English.

The Project crosses an important migratory flyway and therefore has been subject to a Critical Habitat Assessment (CHA), which draws on avifauna surveys and other data gathered for the

ESIA and other ESIA's of the neighbouring wind power projects. Twelve critical habitat-qualifying species have been confirmed to occur in the project area, all of which are migratory bird species.

Potential critical habitat has been identified by the ESIA in the southern third and northern section of the OHL alignment where migratory species are flying below 120m. Additional surveys have as a result been commissioned during Autumn 2024 to confirm whether these species utilise the terrestrial habitat where the project infrastructure is located to confirm Critical Habitat determination. Supplementary surveys did not find any evidence of soaring birds coming to roost in the Galala mountains or utilising any of the terrestrial footprint of the Project, therefore confirming the Project area does not qualify as critical habitat.

Mitigation measures to avoid and reduce collision risks include utilizing existing OHL corridors (as is the case for part of the route), and use of mobile (firefly) diverters and reflectors. Additional measures to reduce the risk of bird electrocution will be integrated in the OHL design and have been added in the ESAP.

The OHL is distant from any residential areas, and all land to be acquired for the OHL is not in use and already acquired by the Government. Most project workers, including contractors, will be recruited locally. No influx issues have been identified. The Project will implement appropriate labour and health and safety requirements applicable to all workers in line with PRs 2 and 4 and this is described in the ESIA's Management Plans.

The Project has developed a Stakeholder Engagement Plan (SEP) and Non-Technical Summary (NTS). Engagement to date, including a Public hearing held in October 2024, has shown general support for the Project. A public grievance mechanism is in place and will be maintained throughout the lifetime of the Project. The EBRD will monitor the Project together with independent advisors.

## **6.2 INTEGRITY**

In conjunction with OCCO, integrity due diligence was undertaken on EETC, its parent company, EEHC, their parent ministry, their Board of Directors and senior management.

[REDACTED]

All actions required by applicable EBRD procedures relevant to the prevention of money laundering, terrorist financing and other integrity issues have been taken with respect to the Project, and the Project files contain the integrity checklists and other required documentation, which have been properly and accurately completed to proceed with the Project.

## **6.3 OTHER ISSUES**

### **Concessional Finance**

The Project will be co-financed by investment grants in aggregate of up to EUR 35m from the EU NIP, for up to 17% of the investment cost. The EU is one of the leading partners in the NWFE initiative and has been engaged and involved in the latest developments on the Project.

The EUR 35m EU grant support is required to ensure the economic and financial viability of the Project and catalyse EETC's broader USD 3.5bn investment programme without

jeopardising EETC's financial performance any further. The EU grant will ensure that EETC can fully service its financial debt without sacrificing the Project's quality.

The Project will support the improvement of EETC's difficult financial situation by facilitating (i) the rehabilitation of the transmission infrastructure, thus decreasing the technical losses on the grid; (ii) indirectly, the increase of tariffs, which would solve the historical problem of the SOE being loss-making; and (iii) the reduction of added pressure on the Egyptian government's need to provide liquidity to support EETC financial standing. In addition, EETC and the MoERE are fully committed to implement these crucial investments to allow Egypt to meet its targets under its other climate commitments.

The Project is also strategic to the economic growth and stabilisation of the Egyptian economy by making available to the market a stable and secure supply of electricity. In this sense, the Project can be considered as the first step of EETC's USD 2bn NWFE-related investment programme, and added value of the Project (though not funded by EBRD or the EU) includes the development of the implementation capacity within EETC, as well as the commercialisation of EETC. This will help improve governance and efficiency in the sector.

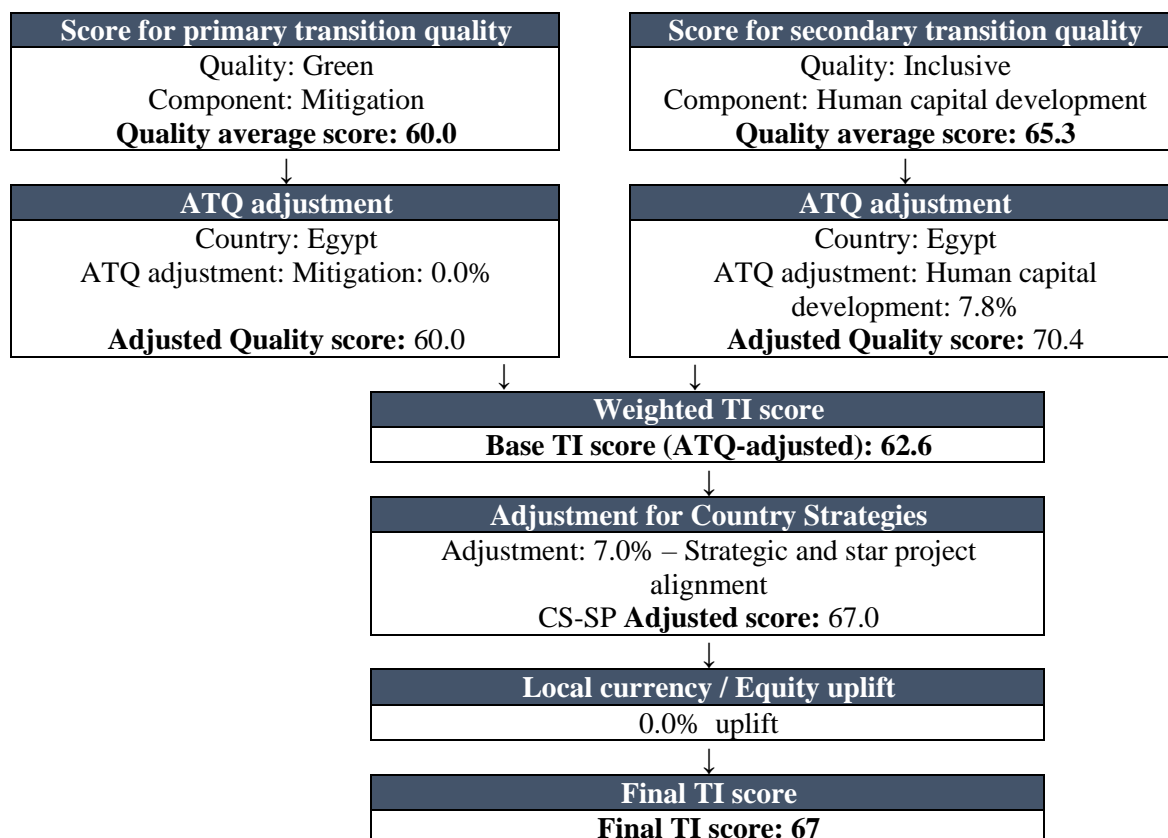
Please refer to *Annex 7* for more details.

## ANNEXES TO OPERATION REPORT

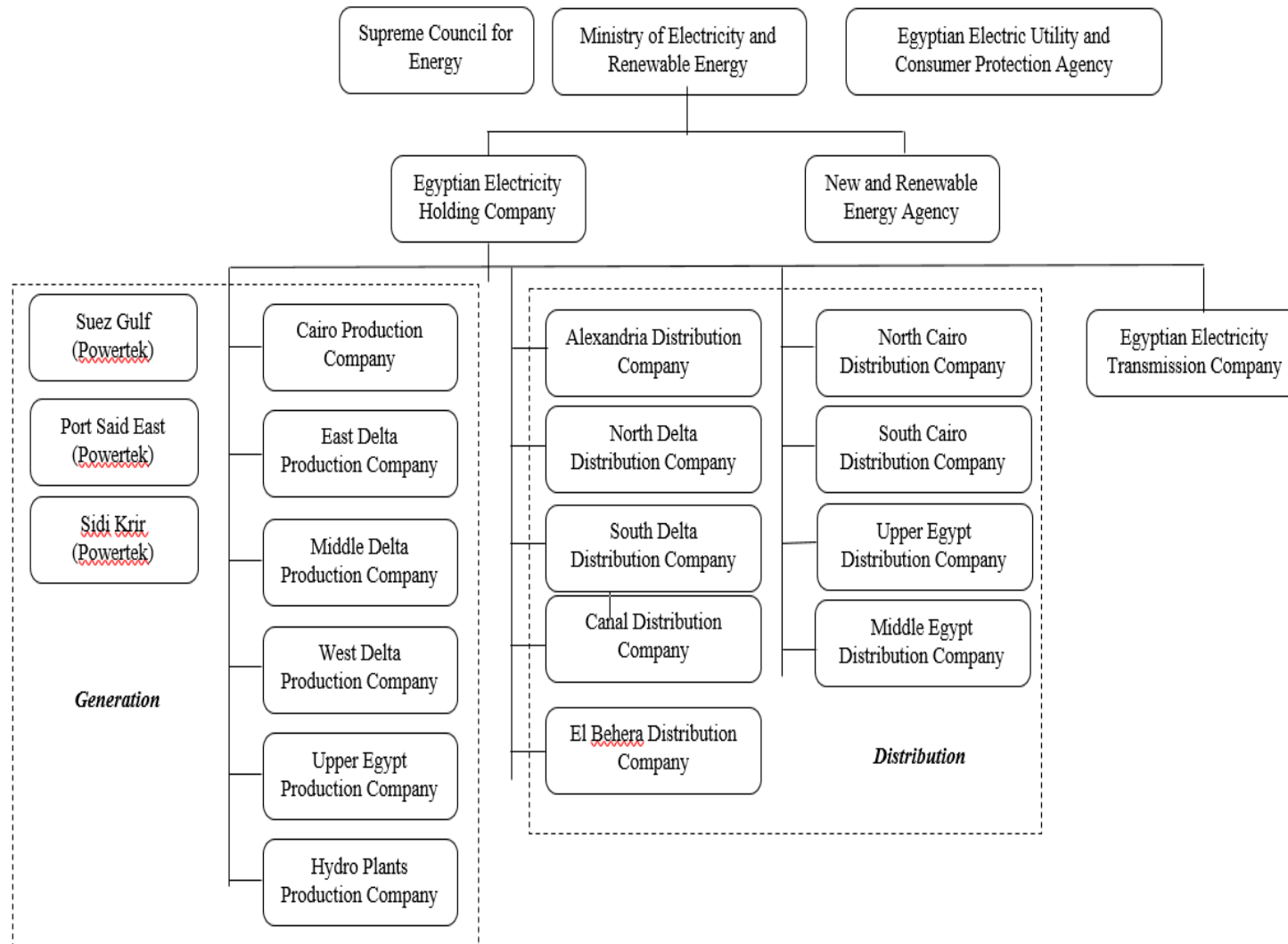
Annex 1	Transition Impact Scoring Chart
Annex 2	Shareholding Structure
Annex 3	Project Implementation
Annex 4	Green Assessment Summary
Annex 5	EETC Financial Statements
Annex 6	Nexus of Water, Food & Energy (NWFE): Energy Pillar
Annex 7	Project EIRR
Annex 8	SSF TC Fiche for PIU and ACAP Support



## Annex 1 – Transition Impact Scoring Chart



## Annex 2 - Shareholding Structure



## Annex 3 – Project Implementation

### Procurement classification – *Public [sovereign]*

[REDACTED]

This Project is with the Egyptian Electricity Transmission Company (“EETC”), applying procurement in accordance with EBRD’s Procurement Policies and Rules (“PP&R”) for public sector operations. EETC has past experience with procurement under IFI procurement rules with projects funded by the World Bank and the European Investment Bank. [REDACTED]

#### Project implementation arrangements:

The Project Implementation Unit (“PIU”) will consist of members from EETC and representatives from the Cairo (substation) and the Gulf of Suez (OHL) regions. The PIU will initially be assisted by an Advanced Procurement Consultant to prepare and oversee the procurement process for the substation contract to be followed by the OHL contract. The EETC’s PIU will be further assisted by a qualified PIU consultant firm with the main focus on supervision and monitoring of the project implementation phase until Project completion. This organization structure will strengthen the project implementation ability for EETC and their affiliated regions and hence mitigate possible procurement delays.

#### Procurement arrangements:

All contracts financed from the Bank’s loan will be procured following open tendering procedure in accordance with the requirements of the Bank’s PP&R for public sector operations. The Bank’s EBRD Client e-Procurement Platform (“ECEPP”) will be used for the procurement processes under the Project.

The EBRD-financed contracts will include 1) the upgrade of a 500 kV Cairo substation and 2) the construction of about 200 km 500 kV transmission line to evacuate c. 2.1 GW of renewable energy from the Gulf of Suez region. The contracts will include (i) final design tasks by the awarded Contractors based on the available basic design, (ii) supply and installation of plant and equipment, (iii) site supervision during and the works including commissioning of the facilities, (iv) spare parts, operation and maintenance plan, and (v) training activities for EETC.

[REDACTED] The intended procurement method is open single-stage tendering process under which all interested suppliers and contractors are given adequate notification of contract requirements and all such tenderers are given an equal opportunity to submit a tender. [REDACTED]

The procurement of Consultant Services Contracts will be in line with the requirements of the Bank’s PP&R, Section 5. All contracts will be subject to prior review by the Bank.



## Annex 4 – Green Assessment Summary

### SUMMARY

The Project entails financing of 1) the upgrade a 500 kV substation in Cairo that is directly linked to the decommissioning of an old and inefficient gas-powered power plant, and 2) the construction of a 200 km high-voltage OHL that will be built to evacuate c. 2.1 GW of RE from the Gulf of Suez region. The Bank's proceeds will be used to finance part of EETC's network investment plan to connect RE plants, optimise power flows, and reduce transmission losses.

The Project has been assessed for alignment with the mitigation and adaptation goals of Paris Agreement. Sector and the project type is included in the 'aligned list'.

### **PARIS ALIGNMENT ASSESSMENT**

#### *Alignment with the mitigation goals of Paris Agreement: general screening*

- The Project/economic activity is included in the 'aligned list'.
- Regarding Project/economic activities, there are no activities included in the 'non-aligned list'.

#### *Alignment with the adaptation goals of Paris Agreement*

- The Project is considered aligned with the objectives of the Paris Agreement. The Project is unlikely to undermine climate resilience of the system in which it operates.

### **GET ATTRIBUTION**

The Project is expected to lead to a reduction in Scope 2 GHG emissions estimated at 4,446 tCO<sub>2</sub>-equivalent annually for the substation and 18,138 tCO<sub>2</sub>-equivalent annually for the OHL.

### **GREEN PROJECT MONITORING PLAN**

[REDACTED]

## Annex 5 – EETC Financial Statements

### Summary

USDm	2021	2022	2023		2021	2022	2023
<b><u>Income Statement Highlights</u></b>				<b><u>Balance Sheet Highlights</u></b>			
<b>Revenues</b>	<b>8,919</b>	<b>9,517</b>	<b>6,627</b>	Non-Current Assets	6,665	6,962	5,139
<i>Growth</i>	<i>na</i>	<i>6.7%</i>	<i>-30.4%</i>	Current Assets	5,985	6,666	5,141
COGS	-8,291	-8,908	-6,442	<b>Total Assets</b>	12,650	13,629	10,280
<b>Gross Profit</b>	<b>628</b>	<b>608</b>	<b>185</b>	Current Liabilities	7,746	8,606	6,668
<i>Margin</i>	<i>7.0%</i>	<i>6.4%</i>	<i>2.8%</i>	Non-Current Liabilities	4,345	4,294	3,134
<b>EBITDA</b>	<b>472</b>	<b>478</b>	<b>100</b>	<b>Total Liabilities</b>	12,091	12,900	9,802
<i>Margin</i>	<i>5.3%</i>	<i>5.0%</i>	<i>1.5%</i>	<b>Equity</b>	559	729	478
<b>Net Profit</b>	<b>193</b>	<b>231</b>	<b>-25</b>	Total Debt	4,345	4,294	2,536
<i>Margin</i>	<i>2.2%</i>	<i>2.4%</i>	<i>-0.4%</i>	Net Debt	4,240	4,194	2,473
<b><u>CF Statement Highlights</u></b>				<b><u>Key Ratios</u></b>			
CFO	983	977	618	Net Debt to EBITDA	9.0	8.8	24.8
CFI	-622	-531	-244	Debt/Equity	7.8	5.9	5.3
CFF	-351	-297	-294	Current Ratio	0.8	0.8	0.8

### Income Statement

USDm	2021	2022	2023
<b><u>Income Statement Highlights</u></b>			
<b>Total Revenues</b>	<b>8,919</b>	<b>9,517</b>	<b>6,627</b>
Cost of production of purchasing goods	-8,463	-9,116	-6,575
Marketing expenses	-1	-2	-1
<b>Cost of goods sold</b>	<b>-8,465</b>	<b>-9,117</b>	<b>-6,576</b>
Salaries & transport allowance for board members	0	0	0
Other administrative expenses	-156	-129	-85
<b>Total G&amp;A expenses</b>	<b>-156</b>	<b>-130</b>	<b>-86</b>
Financing Expense	-215	-200	-194
Interest Income	4	11	15
Grants and subsidies	189	206	153
FX gains	1	0	0
Capital gain	6	1	0
Other revenues	66	75	58
Other expenses	-155	-131	-22
<b>Net profit</b>	<b>193</b>	<b>231</b>	<b>-25</b>

*Balance Sheet*

USDm	2021	2022	2023
<b><u>Balance Sheet Highlights</u></b>			
<b>Fixed Assets</b>	<b>6,665</b>	<b>6,962</b>	<b>5,139</b>
Inventory	849	793	656
Notes receivable	5,031	5,625	4,220
Cash & cash equivalents	105	249	265
<b>Current Assets</b>	<b>5,985</b>	<b>6,666</b>	<b>5,141</b>
Provisions	35	40	24
Notes payable	7,712	8,566	6,644
<b>Current Liabilities</b>	<b>7,746</b>	<b>8,606</b>	<b>6,668</b>
Capital	554	549	365
Legal reserve	17	16	69
Capital reserve	10	10	14
Other reserves	3	2	2
Carried loss	-202	-79	29
Year results	178	231	0
<b>Total equity</b>	<b>559</b>	<b>729</b>	<b>478</b>
LT loans from banks	2,018	1,896	987
LT loans from others	1,285	1,352	1,368
LT loans from EEHC	132	94	59
Securing current consumption	910	952	123
Other LT liabilities	0	0	597
<b>Total LT liabilities</b>	<b>4,345</b>	<b>4,294</b>	<b>3,134</b>



*Cashflow Statement*

USDm	2021	2022	2023
<b><u>Cash Flow Highlights</u></b>			
Cash sales and receipts from clients	6,708	7,728	5,383
Cash purchases and payments for suppliers	-5,638	-6,414	-4,667
Paid wages	-314	-315	-230
Paid taxes duties & duties	-38	-47	-41
Other receipts	343	108	304
Other payments	-77	-84	-130
<b>Net cash flow from operating activities</b>	<b>983</b>	<b>977</b>	<b>618</b>
Payment for the fast track	0	0	0
Payment for the acquisition of fixed assets	-632	-546	-263
Interest received	4	11	0
Other receipts	6	4	19
<b>Net cash flow from investing activities</b>	<b>-622</b>	<b>-531</b>	<b>-244</b>
Loan receipts	299	298	140
Interest received	0	0	15
Receipts for the fast track	-489	-475	-332
Local and foreign interest paid	-155	-115	-117
Finance from holding company	0	0	0
Other receipts	0	0	-6
Other payments	-7	-11	0
<b>Net cash flow from financing activities</b>	<b>-351</b>	<b>-303</b>	<b>-300</b>
<b>Net change in cash flow</b>	<b>10</b>	<b>143</b>	<b>73</b>
Cash BoP	95	100	159
FX differences	0	0	26
Cash EoP	105	249	265

## Annex 6 – Nexus of Water, Food & Energy (NWFE): Energy Pillar

The Egyptian Authorities announced NWFE programme, a flagship country initiative, at COP27 in Sharm El Sheikh. The Energy Pillar of the NWFE (“**NWFE-EP**”) initiative was formally announced through the signature of a Partnership Agreement between Egypt represented by the Ministry of Electricity & Renewable Energy (“**MoERE**”), the Ministry of Environment (“**MoE**”), and the Ministry of International Cooperation (“**MoIC**”), the Donor Partners and the IFI Partners. The Energy Pillar of the programme is a result of the extensive policy dialogue and coordination of the Bank with the authorities. NWFE-EP aims at closing 5 GW of existing inefficient oil and gas-fuelled power generation capacity and facilitate the investments of > USD 10bn (primarily from commercial lenders and investors) to support the installation of 10 GW of new renewable energy capacity through a range of market routes.

The Bank successfully mobilised financial donor support in the range of EUR 600m in aggregate from the European Commission, the United States, France, Germany, the Netherlands, Denmark, and the United Kingdom. This transformational private climate investment is facilitated by a package of at least USD 500m in public investment, which comprises two main elements: investment in decommissioning and demolishing of fossil-fuelled plants and investment in grid strengthening and energy storage to facilitate the absorption of large quantities of variable renewable energy generation.

NWFE-EP aims at closing 5 GW of existing inefficient oil and gas-fuelled power generation capacity and facilitate the investments of > USD 10bn (primarily from commercial lenders and investors) to support the installation of 10 GW of new renewable energy capacity through a range of market routes. NWFE-EP package also includes a USD 20m component of comprehensive institutional support for the Egyptian authorities to develop and implement a decommissioning plan, just transition plan to support affected workers, a support scheme for local businesses to develop value chains of green technologies and services, a programme of technical and commercial support for the rollout and absorption of renewable energy capacity with focus on the grid and programme implementation.

The public investment and institutional support pillars are expected to be financed with support from development partners, including IFI loans as well as concessional finance, including grants.

### Expected Impacts

NWFE-EP is expected to lead to GHG emission reductions of indicatively 17 MtCO<sub>2</sub>eq/annum (resulting from the closure of the fossil fuel assets and the displacement of other fossil fuelled generation by the new renewable electricity capacity), and result in savings of more than 2bcm/annum of natural gas.

- I) The new 10,000 MW RE capacity once installed and operating will generate around 30 million MWh electricity annually, resulting in about 17 MtCO<sub>2</sub>eq emissions savings per annum through the displacement of emissions from the 5 GW of decommissioned capacity and generation from other fossil fuel sources<sup>5</sup>.
- II) Based on historical data from the Egyptian Electricity Holding Company (“**EEHC**”), it is estimated that this group of installations is responsible for a net supply of c. 10 million MWh of electricity (5% of total domestic generation), emitting around 7 MtCO<sub>2</sub>eq annually.

### Public investment plan (grid strengthening and storage)

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<sup>5</sup> CO<sub>2</sub> emissions savings are estimated on the assumption that 10,000 MW of new renewable capacity will generate c. 30 GWh of electricity. This will allow for the decommissioning of 5 GW of capacity that generated 11 GWh and emitted more than 7 MtCO<sub>2</sub>eq. The remaining 19 GWh of electricity is assumed to displace fossil fuelled generation emitting at the average Egyptian emissions factor of 498 kg/MWh, resulting in an additional 10 MtCO<sub>2</sub>eq of avoided emissions.

The increase in the share of variable renewable energy in Egypt's current generation from c. 10% to c. 25% estimated to result solely from the deployment of the 10 GW RES capacity and the decommissioning of the 5 GW thermal capacity, presents significant additional challenges to the network to manage and absorb.

The MoERE is accordingly developing a grid investment plan, representing incremental investment needs associated with the 10 GW of new RES capacity, to strengthen the transmission network and ensure the reliable operation of the electricity sector as it shifts to a new model based around increasing volumes of variable renewable energy. This is part of a wider USD 2bn overall network investment strategy.

Investments will cover transmission line extension and rehabilitation, substations, and the digital systems required to distribute the new renewable energy generated through the programme as well as energy storage facilities, in particular batteries.

These investments will be implemented by the state-owned Egyptian Electricity Transmission Company ("EETC"), which owns and operates the transmission system. A detailed study on the necessary actions needed by EETC to integrate 10 GW of renewable energy while retiring 5 GW of inefficient oil and gas plants and the relevant investment is being conducted, but a high-level outline of the investments includes<sup>6</sup>:

- Substations for the power evacuation resulting from the new RES capacity;
- c. 1,000 km of mainly 500 kV transmission lines to support RES integration;
- c. 20 km of new lines to feed the new renewable hydrogen production installations with renewable electricity;
- Reactive power compensation and dynamic voltage support improvements to enhance the stability and system security;
- Energy storage and digital solutions including battery storage facilities.

In June 2023, and in line with its obligations under the NWFE-EP, Egypt submitted a revised NDC to reflect the country's new ambitious climate policy and political declaration at COP27, including a target to reach 42% of RES generation mix by 2030, 5 years earlier than previously planned.

Progress on NWFE-EP activities are provided below, and are current as of October 2023.

#### Progress on decommissioning of thermal power plants:

- Technical Assistance Support to start in October 2023 in preparing a Decommissioning Master Plan applicable to the 12 plants to retire. This will provide a well-defined action plan to safely retire, dismantle and remediate the plants in line with environmental, safety and technical standards;
- A Just Transition Scoping Study has been launched to identify the needs for training and reskilling and to ensure an efficient and just transition plan for the affected workers. Further follow up assignments for Just Transition, including job opportunities in decommissioning as well as green value chains, will be developed and coordinated with Partners;
- Site assessment are expected to be conducted aimed at assessing in details technical aspects, ESIA, and strategic workforce management; and
- The EEHC has carried out an initial assessment of plants to retire in 2023, resulting in identification of about 1 GW capacity. EEHC has progressed with closing the plants in 2023

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<sup>6</sup> Although the study will have no impact on this Project, these are high priority projects that need to be completed regardless of the outcome of the study. The OHL is required for integration of renewables with the evacuation up to 2.1 GW of renewable energy and the substation is required to ensure stability of grid in the region after the decommissioning of Shoubra El Kheima. The Bank understands that the study will determine the investments needs for the grid not in the short term, but in the coming 5-7 year period to ensure the grids capacity to integrate the remaining GWs of renewables required to achieve the 42% target by 2030. The report is nearing its conclusion and expected to be delivered to EETC by the end of 2023.

and intends to proceed with full decommissioning (i.e. dismantling) the units in Q1 2024. The UK is supporting the decommissioning of the first 1 GW and other partners are in discussions to support other milestones.

Progress on renewable energy:

- At least 3.7 GW RES capacity under long-term offtake arrangement with EETC – 1.8 GW signed in 2023;
- Up to 3 GW of wind and solar capacity to be tendered under competitive procedures to domestic and international developers and constructed in the West Nile area (under discussion);
- 3.3 to 6.3 GW Private-to-Private (“P2P”) wind and solar capacity developed by private developers on land made available by the Egyptian government in the East Nile area. The RE produced by these plants is expected to be sold to other entities to for renewable hydrogen production and water desalination (under discussion);
- A study on green supply chains development in the country is expected to start in October to identify and address opportunities in developing localised supply chains for green and low carbon technologies and services; and
- A P2P assignment is on-going with public consultations already taken place. This aims at establishing a regulatory framework for the development of P2P projects in electricity markets.

Progress on grid activities:

- Grid-strengthening activities include technical assistance support and investments in transmission lines, substations, distribution lines and dispatch control centres;
- To date, AfD, KfW and EBRD are working on grid projects with support from donors, such as the EU (AfD – Alexandria substation project; KfW 2 lines and 2 substations + 1 substation in Alexandria under discussion; EBRD – OHL transmission and Cairo substation; EBRD – Distribution dispatch centre project under discussion); and
- A grid study is on-going which will define further investment needs for the grid network.

Private sector mobilisation:

- The implementation of the NWFE Energy Pillar is estimated to require a wide range of instruments, including private sector mobilisation, namely domestic and international developers, institutional investors, commercial banks and other international financial institutions, of an additional USD 10bn in renewable energy capacity by 2028;
- As of 2023, c. USD 2bn in private sector funding has been mobilised in NWFE projects, in addition to grants and concessional funding. The figure includes primarily investments in wind and solar capacity in the Gulf of Suez, and projects supporting the strengthening and upgrading of the transmission and distribution grid, to accommodate for additional renewables and the retirement of existing thermal capacities;
- A GFANZ-convened Private Finance Group for NWFE has been formed at request of MoIC to collaborate with the EBRD and other Partners in identifying barriers to private investments and opportunities; and
- There is a healthy pipeline of renewable energy projects to finance which is regularly updated for all partners.

[REDACTED]

From a policy angle, the Bank is completing support with Green Supply Chains development, with the primary objective of enhancing Egypt’s ability to attract FDI and establish diversified, resilient renewable energy supply chains with strong local participation. This assignment is being finalised with an Action Plan for implementation delivered, and a series of final workshops with key public authorities and the industry to take place.

A just transition scoping study assessing the impacts of the affected employees of the thermal power plants for closure is being completed by Dec 2024. Additionally, a technical and environmental decommissioning master plan study is ongoing, expected finalisation by Q1 2025.

Technical assistance has been provided to establish a P2P regulatory framework to facilitate the direct sale of renewable energy between private sector entities, further accelerating the transition to clean energy. The P2P rules have been approved in March, proceeding with a pilot implementation phase. The Bank is supporting EgyptERA in the first phase, with an open call for projects for at least 500 MW capacity in total.

A wind measurement campaign in the El Wahat area is currently underway, with the procurement process for a consultant to lead this assignment with a deadline mid-October. This campaign is a critical step toward identifying and facilitating rapid and large-scale wind resources in the region, supporting Egypt's broader renewable energy ambitions.

Other workstreams under NWFE (not supported by the Bank) include Strategic Environmental Assessment, assessment of key priority needs of the grid etc.

## Annex 7 – Project EIRR

The Project benefits from an EU NIP investment grant. [REDACTED]

The economic benefit / returns of the Project are high on the back of (i) the positive difference between the unsubsidised end-user electricity tariff and the wind tariff of the wind power plants in the Gulf of Suez region with respect to the OHL component, (ii) the energy savings from the retirement of the Shoubra El-Kheima power plant which has aged, as well as the positive difference between the unsubsidised end-user electricity tariff and the cost of electricity production with respect to the upgrade of the 500 kV substation and (iii) the carbon emissions savings resulting from the 2.1 GW of renewables in the Gulf of Suez region that the OHL will evacuate their generated energy. In addition, the RE generation projects in the Gulf of Suez region (c 2.1 GW) depend on the OHL to evacuate their power, augmenting the economic benefit of the Project. The social discount rate used is 6%<sup>7</sup>.

The Project is also strategic to the economic growth and stabilisation of the Egyptian economy by making available to the market a stable and secure supply of electricity. In this sense, the Project can be considered as the first step of EETC's USD 2bn NWFE-related investment programme, and added value of the Project (though not funded by EBRD or the EU) includes the development of the implementation capacity within EETC, as well as the commercialisation of EETC. This will help improve governance and efficiency in the sector.

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<sup>7</sup> The social discount rate of 6% is used across all EBRD projects.

## **Annex 8 - SSF TC Fiche for PIU and ACAP Support**

[REDACTED]