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**ANNEX**

to the Commission Implementing Decision on the financing of the annual action plan in favour of Bangladesh for 2022

**Action Document for Partnership for Green Energy Transition in Bangladesh**

**ANNUAL ACTION PROGRAMME 2022 FOR BANGLADESH**

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

**1 SYNOPSIS**

**1.1 Action Summary Table**

<b>1. Title CRIS/OPSYS business reference Basic Act</b>	Partnership for Green Energy Transition in Bangladesh OPSYS number: ACT-61315 Financed under the Neighbourhood, Development and International Cooperation Instrument ( <u>NDICI-Global Europe</u> )/ Overseas Association Decision/European Instrument for International Nuclear Safety Cooperation Regulation
<b>2. Team Europe Initiative</b>	Yes: Team Europe Initiative on Green Energy Transition (country)
<b>3. Zone benefiting from the action</b>	The action shall be carried out in Bangladesh, South Asia
<b>4. Programming document</b>	Bangladesh – Geographic Multi-annual Indicative Programme (MIP) 2021-2027
<b>5. Link with relevant MIP(s) objectives / expected results</b>	Specific Objectives of Thematic Area 2 - Green Inclusive Development: 1: Promote energy efficiency and affordable renewable energy; Specific objective 2: Improve environmental protection and support climate change mitigation and adaptation in Bangladesh's sustainable development
<b>PRIORITY AREAS AND SECTOR INFORMATION</b>	
<b>6. Priority Area(s), sectors</b>	Thematic Area 2 - Green Inclusive Development
<b>7. Sustainable Development Goals (SDGs)</b>	Main SDG (1 only): 7 Other significant SDGs (up to 9) and where appropriate, targets: 5, 12, 13, 1, 8, 9, 10
<b>8 a) DAC code(s)</b>	231 - Energy Policy 90% 232 - Energy generation, renewable sources 10%
<b>8 b) Main Delivery Channel</b>	40000 EU and EU MS development entities and Financial institutions

<b>9. Targets</b>	<input type="checkbox"/> Migration <input checked="" type="checkbox"/> Climate <input type="checkbox"/> Social inclusion and Human Development <input checked="" type="checkbox"/> Gender <input type="checkbox"/> Biodiversity <input type="checkbox"/> Education <input type="checkbox"/> Human Rights, Democracy and Governance			
<b>10. Markers</b>  (from DAC form)	<b>General policy objective @</b>	<b>Not targeted</b>	<b>Significant objective</b>	<b>Principal objective</b>
	Participation development/good governance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Aid to environment @	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Gender equality and women's and girl's empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Trade development	<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 checked="" type="checkbox"/>	<input 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"/>
	<b>RIO Convention markers</b>	<b>Not targeted</b>	<b>Significant objective</b>	<b>Principal objective</b>
	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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Climate change adaptation @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11. Internal markers and Tags:</b>	<b>Policy objectives</b>	<b>Not targeted</b>	<b>Significant objective</b>	<b>Principal objective</b>
	Digitalisation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	digital connectivity digital governance digital entrepreneurship digital skills/literacy digital services	YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	Connectivity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	digital connectivity energy transport health education and research	YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
	Migration @ (methodology for tagging under development)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reduction of Inequalities @ (methodology for marker and tagging under development)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Covid-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>BUDGET INFORMATION</b>				
<b>12. Amounts concerned</b>	Budget line(s) (article, item): BGUE-B2022-14.020131-C1-INTPA Total estimated cost: EUR 8 000 000 Total amount of EU budget contribution EUR 5 000 000 This action is co-financed in joint co-financing by GIZ for EUR 3 000 000 Germany (through GIZ) as part of the Team Europe Initiative on Green Energy Transition (TEI GET) will support this Action.			
<b>MANAGEMENT AND IMPLEMENTATION</b>				
<b>13. Type of financing<sup>1</sup></b>	<b>Indirect management</b> with the entity(ies) to be selected in accordance with the criteria set out in section 4.3.1			

## 1.2 Summary of the Action

Bangladesh's economic growth and the reduction of the socio-economic inequalities cannot be achieved without affordable, reliable, sustainable and modern energy for all, reduced greenhouse gas (GHG) emissions, and reduction of the economic cost of pollution<sup>2</sup>. The country's GDP growth requires a higher energy demand, leading to increased ecological degradation alongside. At the same time, energy production and utilisation is the single biggest contributor to global warming. Worldwide, to reach the objectives of the Paris Agreement on Climate Change, the EU Green Deal and the Agenda 2030 for Sustainable Development, a significant effort is needed to decarbonize the energy sector through increasing the share of renewable energy and enhance energy efficiency.

In view of the country's graduation from least developed countries (LDC) list (2026), energy, is widely seen as a strategic sector in boosting economic growth. Demand for electricity is projected to reach 50,000 megawatts (MW) by 2041<sup>3</sup>. The country's current energy generation mix is dominated by fossil fuels, with a renewable energy (RE) share of only 3%, despite the Government's initial target of 10% by end of 2020. In terms of energy efficiency and affordability, transmission and distribution losses remain a critical issue, higher than the regional average, with social, economic and environmental consequences. Also, the grid infrastructure and its ancillary services need increased flexibility and control, as well as resilience, in view of integrating the planned growing share of variable and intermittent renewable energy sources. This requires targeted policies (and their implementation) to advance the integration of variable renewable energy sources focused on market design, improving electricity transmission and distribution system infrastructure.

<sup>1</sup> Art. 27 NDICI

<sup>2</sup> <https://www.tbsnews.net/environment/bangladesh-loses-14bn-year-air-pollution-44359>

<sup>3</sup> Power System Master Plan (PSMP), 2016 and BPDB, 2019-20 annual report

This Action taps into the huge opportunities for climate change mitigation, and it supports the country in its shift towards green energy, as a key driver towards GHG emissions reduction, and the achievement of the country's Nationally Determined Contributions (NDC) goals, while factoring in the economic cost of pollution.

This Action directly contributes to Multi-annual Indicative Programme (MIP) Priority Area 2 'Green Inclusive Development' and its specific objective 1 to promote energy efficiency and affordable renewable energy. The Overall Objective (Impact) of this Action is to support the Government of Bangladesh to reduce GHG emissions, hence to achieve the NDC targets. The Specific Objective (Outcome) of this Action is to improve the policy and regulatory framework for implementing the green energy transition in Bangladesh.

The proposed Action will address policy and regulatory framework implementation gaps, ultimately promoting and facilitating relevant reforms, technology and knowledge sharing, and facilitating investments to expand the generation of power through renewable energy. The outputs foreseen by this Action will focus on scaling up the implementation of the existing policy/regulatory framework for renewable energy and energy efficiency, establishing a more favourable investment climate for sustainable energy, as well as increasing quality, spectrum and inclusiveness of green energy services.

The investments in grid-scale renewable energy generation will in parallel be further encouraged through a loan framework/credit facility provided by one or several European Financial Institutions (EFIs) promoted /leveraged by EU investment grant and technical assistance under the EU blending mechanism.

This AAP fully contributes to the Team Europe approach, and in particular to the objectives and activities of the Team Europe Initiative on Green Energy Transition (TEI GET) in Bangladesh. The TEI GET's overall objective is to support Bangladesh's power system to achieve a maximum coverage of the country's energy demand through renewable energy, while reducing demand through energy efficiency.

The transition to a greener energy system is expected to contribute to a better quality of life, directly contributing to the EU Green Deal, the Global Gateway, the Indo-Pacific Strategy, the SDGs and the Global Gateway. Access to energy is a prerequisite to the realization of human rights, having a positive impact on access to health and education, business creation and women's empowerment, to name a few contributions to economic and social development. The Communication on decent work worldwide has outlined that the transition of the economy following the climate change must be socially fair and just. The Paris Agreement refers to 'the imperatives of a just transition of the workforce and the creation of decent work and quality jobs'. The Council Recommendation on ensuring a fair transition towards climate neutrality underlines that "Fairness and solidarity are defining principles of the European Green Deal".

The proposed Action is in line with the national development plans, and in particular: 8<sup>th</sup> Five Year Plan 2021-2025, Vision 2041, upcoming Integrated Energy and Power Master Plan (IEPMP), Renewable Energy Policy (in phase of revision), Energy Efficiency and Conservation Master Plan, Bangladesh Delta Plan (BDP) 2100, the SDGs agenda and Bangladesh's Nationally determined Contributions, and with the Mujib Climate Prosperity Plan up to 2030. This Action falls under the priority area 2 "Green Inclusive Development" of the MIP 2021-2027 for Bangladesh.

In terms of EU policy priorities, this Action directly contributes to the objectives of the Paris Agreement, Agenda 2030, and EU efforts, as outlined in the European Green Deal, with a strong external dimension supporting partner countries in decarbonizing their energy systems by prioritizing renewable energy. Supplying clean, affordable and secure energy in an efficient way by enabling a green energy transition is one of the Green Deal's main pillars to significantly reduce the EU's greenhouse gas emissions and achieve the EU's zero pollution ambition. The Action is also aligned with the EU's Gender Action Plan III promoting a fair and inclusive green transition.

## 2 RATIONALE

### 2.1 Context

With an estimated population of 166 million people, Bangladesh ranks as the world's 8<sup>th</sup> most populous country. Bangladesh, despite being one of the most affected countries by environmental hazards and the consequences of climate change<sup>4</sup>, has been among the fastest growing economies in the world over the past decade, mainly due to a demographic dividend, to a strong ready-made garment (RMG) exports, to stable macroeconomic conditions and

<sup>4</sup> [https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021\\_1.pdf](https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_1.pdf)

to substantial migrants remittances (6.7% of GDP<sup>5</sup>), with a positive impact on human development and poverty reduction. The country will graduate out of the UN LDC list in 2026.

The COVID-19 pandemic decelerated economic growth, but strong remittance inflows and a rebound in export market has helped the economy to start recovering gradually. The economy's outlook for the years to come looks positive. Projected GDP growth rate for FY22 is 7.5% (IMF).

Inflation remains within the 5-6% range (in line with Bangladesh Bank target). In order to counteract the adverse economic shocks from COVID-19 pandemic, a stimulus package worth BDT 1.2 trillion (3.6% of GDP), channelled mostly through the banking system, was announced, addressing the health sector, adding to existing programmes in favour of the population in the most vulnerable situations, and supporting the affected business sector. The fiscal balance will record a deficit over the medium term due to weak revenue performance – total revenue-GDP ratio reached 9.4% in FY20, against 10% in FY19 (lowest tax-to-GDP in the region). An analysis of the economic costs of pollution was carried out by the EU Delegation, showing a 5% GDP loss per year due to the impacts of air pollution only, which did not decrease during the lockdown in 2020.

In terms of macroeconomics indicators, Bangladesh continues to be assessed at low risk of external and overall debt distress, with the Government borrowing mostly through National Saving Certificates (NSCs) and having very little external debt (15-16%). The Government is working on revising the Medium-term Debt management Strategy (MTDS), which will consider the implications of possible reduction in concessional financing with the forthcoming graduation from LDC status and increased need for issuance of market-based government securities, as a result of ongoing NSC reforms. The high level of non-performing loans (NPLs) especially in state owned commercial banks is still an issue, which requires reforms such as adoption of risk-based supervision, improving independence of the Bank of Bangladesh, enhancing legal system in line with best international practice, strengthening corporate governance.

The major risks are at political and governance level: lack of disaggregated data, capacity and knowledge, fragmented democratic process leaving behind the people in the most vulnerable situations, ineffective rule of law, systemic corruption. Bangladesh has seen advances in gender equality in recent years, but women are still excluded from the formal economy and decision-making spaces<sup>6</sup>. These conditions also generate inequalities in women's access to and use of energy.

While Bangladesh has developed adaptation measures and infrastructures to address the adverse effects of climate change, the mitigation side has not kept pace. With one of the largest populations in the world, the per capita emissions remain small although the overall emissions are dramatically increasing<sup>7</sup>. In its enhanced NDCs of 2021<sup>8</sup>, Bangladesh reconfirms the energy sector as a key one to achieve mitigation objectives<sup>9</sup>, albeit with limited ambition.

Within this framework, in Bangladesh environmental hazards are high, including floods, cyclones and increased salinity and heat waves, worsened by the consequences of climate change<sup>10</sup>. Displacement due to disasters, climate change and environmental degradation from the coastal areas to the main cities is a reality – with estimations that point to 1.2 million people to be displaced every year due to climate related hazards<sup>11</sup> – and environmental degradation has put Bangladesh as 162<sup>nd</sup> out of 180 countries assessed by the Environmental Performance Index<sup>12</sup>, with particularly low score in terms of air quality (179/180).

While in terms of climate adaptation Bangladesh has offered several potential pathways, the huge opportunities for Action from the mitigation side have been widely neglected, despite a constant increase in terms of the total output of GHG.

<sup>5</sup> [World Bank, 2020.](#)

<sup>6</sup> <https://blogs.worldbank.org/endpovertyinsouthasia/bangladeshs-prosperity-hinges-gender-equality>

<sup>7</sup> <https://ourworldindata.org/country/bangladesh>

<sup>8</sup> [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated\\_NDC\\_of\\_Bangladesh.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated_NDC_of_Bangladesh.pdf)

<sup>9</sup> [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated\\_NDC\\_of\\_Bangladesh.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated_NDC_of_Bangladesh.pdf)

<sup>10</sup> The Delegation, within the Local Government Initiative on Climate change programme is carrying out climate attribution studies to elaborate on how much of the natural hazards occurring can be attributed to climate change and global warming.

<sup>11</sup> <https://www.internal-displacement.org/countries/bangladesh>

<sup>12</sup> <https://epi.yale.edu/epi-country-report/BGD>

In the NDCs, a guiding policy document stemming from the Paris Agreement on climate change, Bangladesh identified in 2015 the energy sector as a key one to achieve mitigation objectives<sup>13</sup>, albeit with very limited ambition. Bangladesh presented an updated NDC in 2021 with more ambitious targets, and in particular, it increased its conditional emissions reduction target from 36 MtCO<sub>2</sub>e to 89.47 MtCO<sub>2</sub>e by 2030 compared to business as usual. The country also increased its unconditional emissions reduction target from 12 MtCO<sub>2</sub>e to 27.56 MtCO<sub>2</sub>e by 2030 compared to business as usual. The revised NDC highlights progress made on adaptation, which is a key priority for the country, compared to mitigation. This, coupled with the extremely high levels of air pollution and a foreseen increase in fossil fuels as primary energy sources (natural gas and coal), makes the energy sector central in merging the international ambitions with the domestic implementation in the years to come.

The 2021-2027 MIP identifies in its second Priority area Green sustainable development, green growth, climate change mitigation and sustainable consumption and production as key to contribute to the country NDC commitments and ambitions to become an UMIC by 2031.

It is therefore, in line with the national development plans, and in particular: 8<sup>th</sup> Five Year Plan 2021-2025, Vision 2041, upcoming Integrated Energy and Power Master Plan, Renewable Energy Policy (in phase of revision), Energy Efficiency and Conservation Master Plan, Bangladesh Delta Plan (BDP) 2100, the SDGs agenda and Bangladesh's NDCs, and with the Mujib Climate Prosperity Plan up to 2030.

The programming will apply the principle of policy first and will be an opportunity to share European best practices and provide “know-how”, which justifies to enter into a new sector as energy with a pragmatic intention of obtaining significant changes in the current policies.

This Action is fully aligned with the EU political priorities of the Indo-Pacific Strategy, Global Gateway, Agenda 2030, European Consensus for Development and the European Green Deal. Supplying clean, affordable and secure energy in an efficient way by enabling a green energy transition is one of the Green Deal's main pillars to significantly reduce the EU's greenhouse gas emissions and achieve the EU's zero pollution ambition. It will also contribute to the implementation of the Gender Action Plan III, notably addressing the challenges and harnessing the opportunities of the green transition for a more gender equal society.

The AAP 2022 fully contributes to the Team Europe approach notably to the objectives and values of the Team Europe Initiative on Green Energy Transition (TEI GET), co-chaired by Germany and the EU Delegation and including several EU member States and like-minded partners. The TEI GET's overall objective is to support Bangladesh's power system to achieve a maximum coverage of the country's energy demand through renewable energy, while reducing demand through energy efficiency.

The Action is therefore fully in line with TEI GET 4 pillars, namely: 1. Politics and society are aware of the importance of a low carbon development and support a low carbon power system; 2. An effective market for sustainable energy is in place, which sets the right incentives for the best technology<sup>14</sup> at the right place; 3. The grid infrastructure is continuously optimised and, where necessary, expanded to integrate the growing share of variable renewable energy sources, while at the same time the grid operation and ancillary services are adapted to the changing power system (smart grid); 4. Energy efficiency is enhanced in generation, distribution and consumption.

This will also support a substantial reduction of the country's GHG emissions and potentially air pollution. It will contribute to the Nationally Determined Contributions (NDCs), which have energy as one of the main sectors for climate change mitigation.

The proposed Action aims at supporting the Government to achieve the above objectives by promoting a transition towards a sustainable economic development and inclusive growth model with a focus on green energy, as well as improving EU visibility in the country.

## 2.2 Problem Analysis

Bangladesh's economic growth and the reduction of the socio-economic inequalities cannot be achieved without affordable, reliable, sustainable and modern energy for all, reduced GHG emissions, and reduction of the economic cost of pollution<sup>15</sup>. The country's GDP growth requires a higher energy demand, leading to increased ecological

<sup>13</sup> [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated\\_NDC\\_of\\_Bangladesh.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Bangladesh%20First/Updated_NDC_of_Bangladesh.pdf)

<sup>14</sup> A technology that is smart, sustainable, innovative and cost-effective.

<sup>15</sup> <https://www.tbsnews.net/environment/bangladesh-loses-14bn-year-air-pollution-44359>



degradation alongside. At the same time, energy production and utilisation is the single biggest contributor to global warming. Worldwide, to reach the objectives of the Paris Agreement on Climate Change, the EU Green Deal and the Agenda 2030 for Sustainable Development, a significant effort is needed to decarbonize the energy sector through increasing the share of renewable energy and enhance energy efficiency.

In view of the country's graduation from LDC list, energy is widely seen as a strategic sector in boosting economic growth. Demand for electricity is projected to reach 50,000 megawatts (MW) by 2041<sup>16</sup>. Electricity generation has increased significantly over the last decade, despite poor transmission and distribution infrastructure, and low efficiency in a large number of aged power plants. Private power production units make up nearly half of total installed capacity, which has increased from about 5 gigawatts (GW) in 2009 to approximately 25 GW in 2021<sup>17</sup>.

The Government of Bangladesh's 8<sup>th</sup> Five Year Plan outlines as part of its main priorities: (i) energy efficiency gains, (ii) an increased share of renewable energy in the overall energy mix, (iii) financial sustainability in the energy sector and the move to a competitive, environmentally sustainable least-cost power generation, transmission and distribution system, with the overarching objective of achieving low-carbon development. It also includes (iv) greater private sector participation, (v) a more transparent tendering and procurement processes, (vi) energy imports; and a (vii) stepped-up resource mobilization so as to reduce the burden on limited fiscal resources. Furthermore, the Government has an interest in enhancing regional power trade and connectivity, and in particular, in importing hydropower (hence clean energy) particularly from Nepal, and potentially Bhutan.

The current fuel mix in Bangladesh's power plants is mainly from natural gas. As domestic natural gas fields will be depleted by 2038<sup>18</sup>, the Government plans to increase the use of imported liquefied natural gas (LNG). Prior to 2020, Bangladesh planned to shift its fuel mix toward coal. However, in 2021 the Government scrapped plans to build 10 coal-fired power plants, citing unsatisfactory progress of the projects. In addition, the Government is preparing, with the support of JICA, a new Integrated Energy and Power Master Plan (IEPMP) where the use of coal gets a lesser priority. The Government is also considering importing more electricity from neighbouring countries such as from Nepal (hydropower) as part of a larger regional power connectivity plan<sup>19</sup> as well as expanding the use of renewable resources, including solar and wind power. Also Russia is building a nuclear power plant in Bangladesh which is expected to become operational within the next couple of years.

At present, the country's RE share within the generation mix is around 3%, despite the Government's initial target of 10% by end of 2020, and far from the targets of the Government's strategic documents mentioned above in terms of climate ambitions.

With the recent (March 2022) inauguration of Payra ultra super critical 1320 MW coal power plant, the country has proudly announced to have become the first South Asian nation to achieve 100% electrification. However, in addition to the impact on carbon emissions' increase, the overall national grid system efficiency and transmission and distribution losses remain a critical issue, higher than the regional average, with social, economic and environmental consequences<sup>20</sup>. In addition, the grid infrastructure and its ancillary services are increasingly in need of flexibility and control, as well as resilience, in view of integrating the planned growing share of variable and intermittent RE sources.

While the political will to promote a sustainable energy economy by using RE and increasing EE in the power sector stands strong, the existing policy and regulatory framework remains weak in terms of enforcement and implementation. Weaknesses particularly concern lack of data availability in support to energy audit targets, absence of standard and labelling for equipment, especially when it comes to RE grid connection, need for awareness creation, lack of capacity among distribution utilities, quality, inclusiveness and diversification of offer of energy services. At the same time, there is a growing need for improved quality (including in terms of standards), offer diversification and inclusiveness (especially for women) of the current green energy services.

<sup>16</sup> Power System Master Plan (PSMP), 2016 and BPDB, 2019-20 annual report

<sup>17</sup> Total installed capacity includes total captive power & off grid renewable energy and amounts to 25.24GW while the peak demand barely goes beyond 14 GW. Source: [Bangladesh Power Development Board \(BPDB\), September 2021](#).

<sup>18</sup> ADB report: Sector Assessment: Energy, CAPE Bangladesh Linked document C

<sup>19</sup> Bangladesh signed a MoU with Nepal in 2018 to oversee investment, development and trade in hydroelectricity between the two countries. Under this arrangement, Bangladesh will import up to 9,000 MW of hydropower from Nepal by 2040.

<sup>20</sup> According to the Ministry of Power, Power Cell, in 2019-20 distribution losses were 8.73%, and transmission loss 2.91%. This is combined with a system overcapacity where 48.4% of generation capacity remained unutilized in June, 2021.

The high potential and interest from the private sector side for investments into the sector is still untapped and challenged by non-conducive investment climate, including a limited access to credit, combined with technology, skills and capacity gaps. This also opens up to potential to promote sustainability instruments such as the Green bonds. Consumers have not yet become active players of the energy sector, while the opportunities for distributed energy systems keep arising globally.

In terms of energy consumption, two challenges can be identified. Firstly, the current regulatory framework is not conducive to consumers' and end users' empowerment (also from a gender angle) in the green energy transition: For the time being, billing appears unclear in terms of price per kWh, and without disclosing previous consumption giving a full picture to the consumer. Moreover, consumers are not aware about what primary energy source they are using and what percentage of their bill relates to royalties, VAT or transport. Digitalisation will play a key role. A green building code is missing, whereas a market improvement could be achieved with proper knowledge and with a clear certificate system, already used in Europe and supporting energy efficiency and renovation measures. Secondly, in terms of commercial and industrial consumption, the primary energy use remains from traditional sources (natural gas, petrol/fuels and coal), translating into high GHG emissions per product traded or produced.

Bangladesh is a signatory to the Paris Agreement and according to its submitted NDCs, as an effort to achieve the global climate mitigation objectives, it aims at reducing carbon emission by 5% which could increase up to 15% by 2030 with the support of the international community. Moreover, the country's transition from lower income to middle-income country status, is likely to involve an increased economic activity requiring a higher energy demand and typically environmental degradation.

Despite the commitments towards a greener growth, the current energy sector policies and regulations do not fully match with the targeted actions. On the one hand, solar rooftops are widely promoted on a national scale, and supported by for example the net metering guidelines and the national Solar Home Systems (SHS) Program; on the other hand, fossil fuels are still highly subsidised (and therefore also fictitiously cheaper and not embedding negative externalities). Contradictory actions on coal generation were frequently discussed until early 2020, although with the decrease in energy demand following the COVID-19 pandemic, the discussion seems to have shifted towards renewables and energy efficiency.

Moreover, along these lines, to achieve Bangladesh's target to become a developed country by 2041, energy and power infrastructure will be key for the long-term economic development of the country. This is why the Government is currently revising the Power System Master Plan (PSMP) 2016, aiming at formulating a comprehensive energy and power development plan up to the year 2041, covering energy balance, power balance and tariff strategies. The Mujib Climate Prosperity Plan, was presented at the 26th UN Climate Change Conference of the Parties (COP26), with a strong energy component.

Furthermore, in its efforts towards a greener energy system, Bangladesh is planning a revision of its Renewable Energy Policy 2008, and currently drafting its National Solar Energy Action Plan, 2021–2041, in order to increase renewable energy contribution in the national power generation mix, to promote appropriate, efficient and environment friendly technology for the development of renewable energy and to set revised targets of renewable energy generation.

The shift from the traditional power generation few large power plants to many renewable sources will affect several aspects of life, including the environmental footprint and pollution reduction, the population's livelihoods and wellbeing, the economy (trade) and governance in line with the UN Sustainable Development Goals and the EU Green Deal.

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

Policy

- Prime Minister's Office, particularly the Prime Minister, is in charge of energy. In addition, the Energy Adviser to the Prime Minister plays a key role. They hold the rank and status of a Minister, sit at the PM office, and advise on matters related to energy, power and mineral resources.
- Ministry of Power, Energy & Mineral Resources (MPEMR), in particular, Power Division, (key duty-bearer) which is responsible for all policies and matters relating to electricity generation, transmission and distribution from conventional and non-conventional energy sources including hydroelectricity. Within Power Division, the Power Cell acts as its "Think Tank" providing policy support; Ministry of Environment, Forestry and



Climate change, particularly for what concerns the demand and consumption side as well as the NDCs, and, wherever needed, with the support of the Department of Environment, having a Director General at the top.

Potential implementing agencies:

- Sustainable Renewable Development Authority (SREDA) including Energy Efficiency & Conservation wing. SREDA is the nodal agency for supporting sustainable and renewable energy development in Bangladesh. SREDA's Mission is to coordinate and facilitate the development of renewable energy and energy efficiency. Its main functions are to: i) Increase the share of renewable energy in the energy mix for reducing dependency on fossil fuel; ii) Take appropriate measures for energy saving; iii) Exploit possibility of any other form of new sustainable energy solutions; iv) Explore feasible financing for RE and EE project; v) Build Capacity;
- Bangladesh Power Development Board (BPDB): statutory body under Power Division (MPEMR) created in May 1, 1972, after bifurcation of erstwhile Bangladesh Water and Power Development Authority. BPDB is responsible for a major portion of generation and distribution of electricity mainly in urban areas except Dhaka and West Zone of the country.
- Bangladesh Energy Regulatory Commission (BERC): created by the Government in 2003 to regulate electricity, natural gas and petroleum. BERC's founding legislation empowered the regulator to set tariffs, Issue, cancel, amend and determine conditions of licenses, protect consumers, arbitrate disputes, and other key regulatory functions.
- Power Grid Company of Bangladesh (PGCB) can be supported through blending operations and capacity building: Power Grid Company of Bangladesh (PGCB) is responsible for operation, Maintenance and development of the transmission system of the country. The main function of PGCB is wheeling of energy from BPDB power station and other generation companies to Distribution entities utilizing transmission network;
- Power distribution companies will enhance their capacity and be financially supported in their effort to adapt the grid to RE, namely: Dhaka Power Distribution Company Limited (DPDC), mostly distributing electricity in the southern part of Dhaka city (Dhaka South City Corporation); Dhaka Electric Supply Company (DESCO), mostly distributing electricity in the northern part of Dhaka city (Dhaka North City Corporation); West Zone Power Distribution Co. Ltd., distributing electricity in the Western Zone (Khulna Division, Barisal Division and Greater Faridpur comprising of 21 districts and 20 upazilla excluding REB area); Northern Electric Company Limited (NESCO); Bangladesh Rural Electrification Board (BREB/REB), a semi-autonomous government agency under MoPEMR to distribute electricity in the rural Bangladesh, and currently also generating electricity.

Private sector:

- Independent power producers (IPPs) and Energy service companies will benefit from a more efficient and harmonized regulatory and policy framework, removal of investment barriers and generally a more conducive investment ecosystem;
- SMEs and more generally export oriented industries will be supported through technical assistance, capacity building, blending and risk sharing financial instrument to implement renewable energy / energy efficiency (RE/EE) investments. They will also benefit in terms of better and more harmonized sector policies and regulatory framework, and improved market competitiveness (investment climate, business environment).

Associations and Civil society:

- All people of Bangladesh, including women, men, boys and girls, and groups in particularly vulnerable situations (internally displaced persons, minority communities, indigenous peoples, among other groups) as rights-holders will benefit from a cleaner and more reliable energy system.

Other stakeholders:

- Infrastructure Development Company Limited (IDCOL), will benefit from an improved regulatory and policy framework and a more conducive investment climate;
- Business associations (BGMEA, BKMEA, BSREA): they can catalyse and carry out advocacy on the needs and added value from industries to finance and implement RE/EE retrofits and reach a greener production;
- Chambers of Commerce both national and regional can assist in connecting and providing platforms to private sector, as well as to identify the main investment/ecosystem constraints. Also, they can be used as trainers for industries and to influence industries to comply with cleaner production objectives;
- CSOs and NGOs working in the environment, climate and energy sectors.
- A particular focus will be given to the involvement and engagement with women associations, and those working for women involved in the sector as well as organisations working with youth and people living in

vulnerable situations such as the persons living with disabilities and IDPs, displaced persons, indigenous communities, among other groups.

All the stakeholders identified above will generally benefit from the project in terms of an improved capacity, introduction of systems and procedures to improve efficiency and effectiveness, development of policy, regulatory and legal tools. The population of Bangladesh will be the ultimate beneficiary with a more reliable, cleaner and durable power in use. Whenever possible, a specific focus will be given to gender mainstreaming in terms of target beneficiaries, as well as to young people in their diversity.

### 3 DESCRIPTION OF THE ACTION

#### 3.1 Objectives and Expected Outputs

The **Overall Objective** (Impact) of this Action is to support the Government of Bangladesh to reduce GHG emissions, hence to achieve the NDC targets.

The **Specific Objective** (Outcome) of this Action is to improve the policy and regulatory framework for implementing the green and just energy transition in Bangladesh.

The **Outputs** to be delivered by this Action contributing to the Specific Objective (Outcome) are:

1. The implementation of the existing policy framework for renewable energy is scaled up;
2. The implementation of regulatory framework for energy efficiency and conservation is enhanced;
3. A more favourable and inclusive investment climate for sustainable energy solutions, including access to finance, is established;
4. The access, quality and inclusiveness of green energy services are increased.

These objectives and expected outputs will be for the benefit of all, women and men, boys and girls, in all their diversity. The Green Energy Transition will be done in a socially fair and just manner.

#### 3.2 Indicative Activities

The proposed activities, among others, are the following:

- **Activities (among others) relating to Output 1:** Mapping of current sector policies and gaps/coherence issues in implementation, facilitating policy dialogue between TEI GET and the Government; Support/facilitate the implementation and enforcement of existing RE/EE policy/regulations including but not limited to, IEPMP, Net-metering guideline, review of national solar road map...; Providing recommendations for changes and improvements considering best practices in the region and internationally; Targeted trainings on human rights based approach and gender mainstreaming for decision makers in the power sector; Support a modelling lab by procurement of specific software and offering the trainings; Identification of entry points for women engagement in GET, including by supporting the participation of women's organisations in policy debate;
- **Activities (among others) relating to Output 2:** Strengthening the energy audit system and designated consumers, energy consumption baseline for more industrial sectors developed including KPI, etc.; Mapping of existing energy audits schemes, technologies and certification tools, support to the creation of recognised standards and certifications for EE and RE; Formulation support for the Labelling Guideline for energy efficient appliances for local manufacturers and importer – bringing private and public sector together in a think tank; Awareness/communication campaigns for energy consciousness with focus on gender-specific consumption (efficient users);
- **Activities (among others) relating to Output 3:** Studies including a gap-analysis of existing financing schemes, including recommendations on how access to finance from commercial banks could be made investor (and borrower) friendly; Technology analysis and know/how sharing, possibly technology transfer involving European companies/service providers/manufacturers; Upgrade testing laboratories so that only equipment approved by recognized standards are used under the net-metering guideline; Exploring introduction of a Bangladesh Photo Voltaic Passport;
- **Activities (among others) relating to Output 4:** Awareness raising, mentoring and coaching for inclusion of women and girls in education/employment in green energy sectors; Activities in support to youth and women (including those from vulnerable background) entrepreneurship in sustainable energy

sector and create conducive environment for private sector involvement in sustainable energy sector among other activities to ensure more inclusiveness in this sector; Identification and design of energy storage technologies applications to increase grid efficiency and stability, and for RE grid integration; Potentially, identifying law/practice in Bangladesh that needs to be adjusted to ensure a socially fair and just green transition; awareness raising amongst key stakeholders on the topic;

- **Horizontal activities (all outputs):** Conducting policy advocacy and capacity development through Workshops, exposure visits, trainings, technical mentoring/coaching, and information platforms, including possible participation to sector related national/international events, exploring scope for Twinning/TAIEX options, among others.

### 3.3 Mainstreaming

#### **Environmental Protection & Climate Change**

Key benefits resulting from these interventions are: a reduction of GHG emissions and air as well as land and potentially water pollution reduction from the replacement of fossil fuels such as coal and gas with RE sources, a reduction of GHG emissions due to increased efficiency of the grid system (leading to reduced generation/demand) a reduction of GHG emission reduction in the industry through energy efficiency and RE use, switching over from fossil fuel to renewable energy, resource efficiency and non-polluting behaviors in the industrial sector and at household level.

Further assessments such as Environmental Impact Assessments (EIAs), Life Cycle Assessments (LCAs), and studies related to Circular economy approach or a Climate Risk Assessment (CRA) are not foreseen specifically for this Action, but could be undertaken at the level of the single projects that will be part of the parallel blending scheme for a RE investment facility. In this regard, a round of consultation was conducted among development partners in the country and JICA, which is currently supporting the updated Integrated Power and Energy Sector Master Plan, is about to launch (July 2022) a Strategic Environmental Assessment (SEA) in the energy sector to be concluded by the end of 2022. Since the Government will be closely involved, and also to ensure development partners' coordination, it is suggested not to propose a new parallel SEA from EU. Studies and analyses have already been undertaken consulting the Government of Bangladesh on future plans and needs, whereby a shared vision with the EU on the topic of climate change has always been remarked.

#### **Gender equality and empowerment of women and girls**

As per OECD Gender DAC codes identified in section 1.1, this Action is labelled as G1. This implies that women will be as much as possible involved in the energy transition, in terms of policies design, decision making, energy-conscious behavior, entrepreneurship. The engagement of women in the frame of policy-level design and decision making, as well as energy sector entrepreneurship, can also be integrated by awareness raising activities at household level. At home, women are those using the most energy consuming devices, and therefore as consumers, women have the potential of making a difference when it comes to optimizing consumption and peak load.

Specifically, an increased involvement of women will be encouraged in: i) decision making and design of policies conducive to a greener and sustainable power system; ii) Education and employment in the energy sector, including capacity building and training activities for utility, particularly in digitization of utility business; iii) end users and awareness raising for energy consciousness activities. Moreover, activities will be particularly identified for the promotion of female entrepreneurship and start-ups on RE/EE investments. This will be further elaborated through the final results (tentatively July 2022) of the ongoing EU study on *Women Engagement in Green Energy Transition*. Gender mainstreaming activities will benefit from cross fertilization with the Gender Action Plan III: 2021-2025 - Country Level Implementation Plan For Bangladesh. Sex-disaggregated data and gender-sensitive indicators will be privileged, as well as GAP III indicators, to ensure the contribution to gender equality can be effectively measured.

#### **Human Rights**

Even though human rights are not a direct main objective of this Action, it will have a human rights based approach. The Action intends to decrease energy poverty and grant equal access to services and economic opportunities for development for all, including groups in more vulnerable situations, such as youth, persons living with disabilities, and internally displaced persons, among other groups. It is supporting SDG 7 which aims to ensure affordable, reliable and modern energy services. To expand energy access, it is crucial to enhance energy efficiency and invest in renewable energy.

Energy consumers and end users will be empowered and more information disclosed. Particular attention will be given to the emerging concept of prosumers. The Action will also build the capacity of "duty-bearers" to meet their obligations. The human rights based approach will be operationalised by ensuring that all rights are respected and that meaningful and inclusive participation, non-discrimination, accountability and transparency are promoted.

#### **Disability**

As per OECD Disability DAC codes identified in section 1.1, this Action is labelled as D0. This implies that persons with disabilities and their empowerment is not a specific target of this Action but they will benefit from the improved access to clean energy along with other population of Bangladesh. However, access and participation of persons with disabilities, especially youth and women with disabilities, will be ensured in the activities related to the output 4. To this end the awareness raising, mentoring and coaching in education/employment. Training will be organised in such a way that women and youth with disabilities can also participate and access. Reasonable accommodation will be provided when needed and invitations to the activities will be sent to persons with disabilities or organisations or persons with disabilities when relevant. Whenever possible data will be disaggregated by disability status to promote the visibility of persons living with disability in the energy sector.

#### **Democracy**

While democracy is not directly addressed by this Action, the proposed operations are expected to empower people by providing them with a more reliable, sustainable, cost-competitive power system, and contribute to improved accountability and the fight against corruption.

#### **Conflict sensitivity, peace and resilience**

A reliable, efficient and sustainable power system is, among others, one of the key elements for a stable and resilient society as it tends to reduce resources' scarcity related conflicts. Therefore, although indirectly, the proposed Action will contribute to peace and resilience.

#### **Disaster Risk Reduction**

Disaster Risk Reduction (DRR) will be mainstreamed through an increased reliability and resilience of the power/energy infrastructure. Also, by encouraging investments into RE sources, and more broadly facilitating the transition to a greener power sector, this Action will contribute to reduce the need for fuel power plants constructions and less GHG emissions from fossil fuels resulting in reduced environmental degradation as well as addressing the issues of global warming. DRR will be taken into account especially when considering the construction of wind power sources in environmental disaster prone areas.

#### **Other considerations if relevant**

Most cross-cutting issues are at the core of the current programme, considering its inclusiveness and sustainability objectives. The Action will pay particular attention to targeting economically and climate-vulnerable populations, in particular women and youth, living in remote rural areas, in urban or peri-urban environments and persons displaced or at risk of displacement due to disasters, climate change and environmental degradation.

### 3.4 Risks and Lessons Learnt

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium/ Low)	Mitigating measures
2 Planning, Process & Systems	Risk 1 Contradictory decisions, change of political priorities and lack of willingness to cooperate, with staff turnover	L	H	Intensified technical and process consulting, strategic placement of specialized staff within the respective partner institution Dialogue on political priorities

	from the partners 'side			
1 to the external environment	Risk 2 Restrictions of work and travel due to the current COVID-19 pandemic	<b>L</b>	<b>L</b>	Increased efforts towards semi-remote or hybrid management and digital communication, along with adjustment to the 'new normal' situation
2/4 Planning, Process &systems/legality or regulatory aspects	Risk 3 Risks related to broader governance - including risk of corruption - and public sector reform issues, which are difficult to address from within the energy sector only. For example, the absence of a favourable green investment climate and business environment is a risk that challenges the preparation of private sector green investment pipelines.	<b>M</b>	<b>H</b>	Increased effort towards supporting holistic energy sector policy reforms, increased awareness on the benefits of a just, climate-proof green energy transition, and facilitated dialogue with civil society, including organisations representing women and groups in vulnerable situations, and the private sector.  Dialogue with relevant public stakeholders on good governance while coordinating with EU's other efforts in that area.
2/4 Planning, Process &systems/legality or regulatory aspects	Risk 4 Poor level of data reporting due to weak/not enforced policy and regulatory framework.	<b>H</b>	<b>H</b>	Increased efforts to reinforce the policy and regulatory framework and facilitating the making of data reporting/collection process mandatory.  Targeted capacity building programmes for relevant stakeholder group to improve capacities in data estimation and collection (including data disaggregated by sex/age and disability status whenever possible), monitoring and verification is part of the proposed action plan
2 Planning, process&systems	Risk 5 Low capacity and lack of interest of the private sector entities in the	<b>M</b>	<b>M</b>	Mapping of key private sector bottlenecks, capacity building and technology gap assessment and strategy for identification of best technologies. Design and creation of targeted financing schemes, and TA for the design of bankable projects

	uptake of RE/EE interventions			
2 Planning, process & systems	Risk 6  Few Member States with experience in the energy sector or concretely willing to work on this	<b>M</b>	<b>L</b>	Germany, France and the EIB, who have experience in energy in Bangladesh are fully on board also thanks to the TEI GET. Progressively encourage commitments from other member states and like-minded partners to join forces.

### Lessons Learnt:

The EU Delegation is currently conducting pre-identification studies on:

- Options for energy Storage in Bangladesh
- Women Engagement in Green Energy Transition
- Power Grid stability
- Study on Incentives for Green Investment in Bangladesh
- Opportunities for Improving Efficiency in Electricity Generation in Bangladesh
- (in preparation) Building a pipeline of grid-scale RE projects to be financed through EU blending schemes

The studies are identifying some the most viable options for the EU to support the power/energy sector in its green transition, while also selecting the actions with the highest EU added value. Also, interlinkages can be explored and identified with the ongoing operations in the region of some EDFIs, especially in terms of (M)SMEs sector financing.

In terms of policy/regulatory framework, a few donors (GIZ, WB, ADB) are engaged in TA/Capacity building in the sector. Germany through GIZ is conducting a multi-phase programme on Policy Advisory (PAP) for Renewable Energy and Energy Efficiency, as well as Energizing Development Bangladesh, EnDev. The proposed Action is meant to complement and create synergies with GIZ PAP programme.

In terms of RE investments, EU Member States GIZ, KfW, AFD are mostly engaged in several renewable energy solutions like grid connected solar power investments, solar rooftop, Solar mini-grids, solar agriculture, empowering women through RE investments, supporting youth innovation in RE sector etc. The proposed actions for energy generation will be implemented in synergies with the current projects. With reference specifically to wind power investments, Denmark, Spain and Netherland with limited scope and progress are engaged in wind power sector in Bangladesh in terms of preliminary/(pre)identification activities. Proposed actions will take stock of these and would help to overcome current bottleneck to engage in wind power investments and scale up European world class technical expertise in this sector.

With reference to grid infrastructure, European partners like KfW and AFD are active in grid efficiency and development/extension investments. The proposed actions will be implemented in synergies with the current projects, and namely: Energy Efficiency Program III, Improvement of Power Transmission Programme in the Western Zone, Energy Efficiency in the grid-based Power Supply, Modernization of Distribution Grid (KfW); Power factor and Smart Grid under DPDC (AFD and EU)- ref. PCC-414850.

Regarding RE/EE investments at industrial level, GIZ, commissioned by the German Federal Ministry for Economic Cooperation and Development, currently provides technical assistance to improve the environmental and social standards as well as health and safety in factories of the textile industries. Activities focus on financial systems development, promotion of the availability of information in the textile sector, and developing training opportunities for service providers. Focus is principally for factories located in Dhaka.

A multi-donor action led by AFD, and financed by EU, GIZ, KfW: "Programme to Finance Safety Retrofits and Environmental upgrades in the Bangladeshi Ready-Made Garment (RMG) Sector"(Ref. PCC-378599) has, among its objectives, increased green and social investments by RMG factories (reduction of pollution, improved resource and energy efficiency, and a more decent place to work). The action is not specifically addressed to SMEs, and this action's end beneficiaries are rather larger size RMG exporters, mostly already part of the Accord initiative.

Also, the Bangladesh Central Bank also offers subsidized green lines of credit for the financing of renewable energy and specific environmentally friendly projects, including effluent treatment plants and more efficient hybrid kilns for



example. Uptake for this program has been low however, largely on account of very strict eligibility criteria, and cumbersome reporting requirements. Moreover, the Central Bank only allows for a very narrow timeframe to draw the funds, which makes it difficult for borrowers to have sufficient projects in that timeframe. The program also suffers from a lack of technical support. A new instrument recently introduced consists of Green Bonds, which is currently at a relatively early stage.

The Proposed project will be designed to operate in coherence and in synergy with the existing initiatives.

Complementarities will also be identified with ongoing and pipeline regional/global programmes as:

- Regional Project on Accelerating Climate Smart Infrastructure (ACSIIS) - Ref. INTV-12785 - 2020
- Promotion of Clean Cooking Ecosystem - Ref. INTV-17764 - 2021
- Integrated National Financing Framework for Accelerating Achievement of Sustainable Development Goals (INFF4SDGs), particularly on SDG 7 - ACT-60952 - 2021
- Knowledge stemming from the Switch Asia TA on green buildings with the Ministry of Environment, Forestry and Climate Change Ref. ACA2015/368-739
- A possible ElectriFI support

### 3.5 The Intervention Logic

The underlying intervention logic for this Action is based on the fact that, in the current scenario, despite an increasing political commitment toward a green energy system: i) the national substantial GDP growth is leading to increased energy demand, addressed with power generation mainly by fossil fuels, and subsequent ecological degradation ; ii) the share of traditional energy sources (including imported ones) remains high, while RE share targets are not met and there is no structured action plan to this end; iii) the current policy/regulatory aspects related to RE need to be enforced needs implementation support: particularly on data availability for energy audit targets, standard and labelling, awareness raising, capacity among distribution utilities, quality, inclusiveness and diversification of offer of energy services; iv) transmission/distribution losses and grid instability remain a critical issue, with social, economic and environmental consequences; v) the high potential and interest from the private sector side remains untapped; v) The, so far unexplored, deployment of energy storage in the power system for grid stability/reliability and RE integration can be expanded;

A green energy transition implies a shift of perspective on the entire power system. The use of renewable energy sources for on and off-grid power generation, electrification of vehicles, cooling and industrial production, the use of different/innovative technologies have broad implications on many aspects of life, including the environmental footprint and pollution reduction, the society, the economy and governance in line with the UN Sustainable Development Goals. This also affects costs and tariffs, trade in terms of energy import changes. Hence, this fundamental transformation needs the backing of the institutional decision makers, but also of most of the population. Energy transition requires demanding political frameworks across sectors. This major effort needs strong political leaders that push the matter forward, also through targeted policy and regulatory reforms.

To this end, fundamental steps are the shift towards more energy conscious policy makers and people, but also efficient and harmonized regulatory and policy framework, including the removal of investment barriers and generally a more conducive and inclusive investment ecosystem.

Therefore, this Action aims at achieving these goals, in partnership and synergy with the relevant development partners under the TEI umbrella. The policy/regulatory framework gaps and RE investments' needs will be addressed through studies, capacity building, technical assistance and financial instruments. Investment climate enhancement and market aspects will be integrated to create a renewable and sustainable energy system with empowerment of consumers. Green energy services will be strengthened in their quality, spectrum and inclusiveness.

In parallel, an increased renewable energy generation will be supported through targeted investment leverage and capacity building using a blending operation with IFIs and, wherever possible, EFSD+ guarantees. This will be done with an International Financial Institution that has relevant experience in the energy sector and country/region through blending and/or sovereign loans. The IFI should be eligible for EFSD+ funding. The preferred option identified is EIB (EFSD+ Dedicated Investment Window 1). Should this option turn out to be not feasible, others will be considered. Would other IFI express interest to participate in the programme (AFD, KFW, etc.) additional funding could be leveraged at a later stage. This will be coordinated through a TEI GET approach.

### 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.

Results	Results chain (@): Main expected results (maximum 10)	Indicators (@): (at least one indicator per expected result)	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	To support the Government of Bangladesh to reduce GHG emissions, hence to achieve the NDC targets.	<ol style="list-style-type: none"> <li>Increased share of RE in the total generation capacity</li> <li>Reduced overall GHG emissions or CO2 emission per unit of value added</li> <li>Fuel consumption by GDP</li> </ol>	<ol style="list-style-type: none"> <li>3.56% 2022</li> <li>TBC</li> <li>TBC</li> </ol>	<ol style="list-style-type: none"> <li>10% (2025)2 provided during intervention</li> <li>3 xxx</li> </ol>	<ol style="list-style-type: none"> <li>SREDA<sup>21</sup>, 8<sup>th</sup> FYP</li> <li>NDC Progress Reports</li> <li>3 provided during intervention</li> </ol>	<i>Not applicable</i>
Outcome 1	To improve the policy and regulatory framework for implementing the green energy transition in Bangladesh for the benefit of all, women and men, boys and girls, in all their diversity.	<p>Number of measures supporting the NDC energy targets are adopted.</p> <p>Extent to which proposed for adoption climate change adaptation and mitigation policies, and environmental protection strategies and plans (including energy policies/ strategies) are based on a gender analysis of risk, need, demand, barriers, and supply (GAP III indicator).</p>	<ol style="list-style-type: none"> <li>1.1 provided during intervention</li> <li>1.2 provided during intervention</li> </ol>	<ol style="list-style-type: none"> <li>1.1 provided during intervention</li> <li>1.2 provided during intervention</li> </ol>	<ol style="list-style-type: none"> <li>1.1 Government reports/national statistics/NDC report</li> <li>1.2 Intervention's monitoring and reporting system along with government reports</li> </ol>	Partner government has commitment and capacity to manage the processes of measures' adoption with a results-based and inclusiveness approach; Accurate and reliable reporting/data availability/ statistics system in place
Output 1	The implementation of the existing policy framework for renewable energy is scaled up	<ol style="list-style-type: none"> <li>1.1 Number of measures that support scaling up the implementation of existing policies/regulations/guidelines/action plans are adopted;</li> <li>1.2 Number of relevant actors (disaggregated by sex) engaged in trainings/awareness raising/activities;</li> </ol>	<ol style="list-style-type: none"> <li>1.1.1 provided during intervention</li> <li>1.1.2 provided during intervention</li> </ol>	<ol style="list-style-type: none"> <li>1.1.1 provided during intervention</li> <li>1.1.2 provided during intervention</li> </ol>	<ol style="list-style-type: none"> <li>1.1.1 Measures and related documents, intervention's monitoring and reporting system</li> <li>1.1.2 Intervention's monitoring and reporting system, events' and activities' attendance and related reports</li> </ol>	Consistent political priorities and willingness to cooperate from partner Government

<b>Output 2</b>	The implementation of regulatory framework for energy efficiency and conservation is enhanced	<p>2.1 Number of measures that support scaling up the implementation existing policies/regulations/guidelines/action plans are undertaken;</p> <p>2.2 Number of relevant actors (disaggregated by sex, disability status) engaged;</p>	<p>1.2.1 provided during intervention</p> <p>1.2.2 provided during intervention</p>	<p>1.2.1 provided during intervention</p> <p>1.2.2 provided during intervention</p>	<p>1.2.1 Measures and related documents, intervention's monitoring and reporting system</p> <p>1.2.2 Intervention's monitoring and reporting system, events' and activities' attendance and related reports</p>	Consistent political priorities and willingness to cooperate from partner Government
<b>Output 3</b>	A more favourable and inclusive investment climate for sustainable energy solutions, including access to finance, is established	<p>3.1 An Action plan for enabling an investment climate conducive to green energy solutions, including digitalization, is developed;</p> <p>3.2 Number of networking events organised and number of public and private actors attending them (disaggregated by sex/age of participants)</p>	<p>1.3.1 No Action Plan (2022)</p> <p>1.3.2 provided during intervention</p>	<p>1.3.1 Action Plan developed (2024)</p> <p>1.3.2 provided during intervention</p>	<p>1.3.1 SREDA website and Government reports</p> <p>1.3.2 Intervention's monitoring and reporting system, events' and activities' attendance and related reports</p>	Accurate and reliable Government reporting and statistics system in place, with sufficient available data
<b>Output 4</b>	The access, quality, spectrum and inclusiveness of green energy services are increased	<p>4.1 Number of relevant actors (disaggregated by sex, disability status) whose awareness/abilities have been raised with project support</p> <p>4.2 Number of women, men, girls and boys equally provided with access to sustainable energy services, disaggregated at least by sex (GAP III indicator)</p> <p>4.3 Number of key stakeholders participating in awareness raising events on the topic.</p>	<p>1.4.1 Baseline : 2022: 0</p> <p>1.4.2 provided during intervention</p>	<p>1.4.1 to be determined during the intervention</p> <p>1.4.2 provided during intervention</p>	<p>1.4.1 Intervention's monitoring and reporting system, events' and activities' attendance and related reports</p> <p>1.4.2 Government reports and statistics, Intervention's monitoring and reporting system</p>	Consistent political priorities and willingness to cooperate from partner Government

<sup>21</sup> <http://www.renewableenergy.gov.bd/index.php?id=7>

## 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 72 months from the date of entry into force of the financing agreement.

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

### 4.3 Implementation Modalities

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the Action with EU restrictive measures<sup>22</sup>.

#### 4.3.1 Indirect Management with a pillar assessed entity

This Action may be implemented in indirect management with an entity, which will be selected by the Commission's services using the following criteria:

- An entity that has a long-standing experience and capacity in policy advisory/design, capacity building and technical assistance;
- The entity needs to have solid experience in the Bangladesh country context, and in the energy sector, especially green/sustainable energy, on and off-grid. Specific experience in renewable energy and energy efficiency in Bangladesh would be required;
- Knowledge and capacity on facilitating investment climate and business environment, including through support to innovation is a plus;
- Preference will be given to an entity that is familiar with EU Green Deals, and more generally EU policies towards sustainable and possibly with TEI GET in Bangladesh.

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

If this Action cannot be implemented in indirect management specified in 4.3.1 due to circumstances outside of the Commission's control, it will be implemented in direct management instead (procurement or grant) for the full amount of EUR 5 million:

##### **Procurement (direct management)**

Procurement will contribute to achieving the specific objective specified in 3.1. with the global budgetary amount is indicated in 4.5.

##### **Grants (direct management)**

###### **(a) Purpose of the grant(s)**

To support the Government of Bangladesh to reduce GHG emissions, hence to achieve the NDC targets. Specifically to improve the policy and regulatory framework for implementing the green energy transition in Bangladesh

<sup>22</sup> [www.sanctionsmap.eu](http://www.sanctionsmap.eu). Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.



**(b) Type of applicants targeted**

International organisation or local entities with capacity for policy advisory in the energy sector, with a focus on renewable energy and energy efficiency.

#### 4.4 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).

#### 4.5. Indicative Budget

Indicative Budget components	EU contribution (amount in EUR)	Third-party contribution, in currency identified
<b>Implementation modalities</b> – cf. section 4.3		
<b>Objective:</b> to improve the policy and regulatory framework for implementing the green energy transition in Bangladesh composed of:		
Indirect management with a pillar assessed entity cf. section 4.3.1	5 000 000	EUR 3 000 000
<b>Evaluation</b> – cf. section 5.2 <b>Audit</b> – cf. section 5.3	N.A. <sup>23</sup>	N.A.
<sup>24</sup> <b>Totals</b>	5 000 000	EUR 3 000 000

#### 4.6. Organisational Set-up and Responsibilities

The entrusted entities are responsible for development partner coordination, joint administration of the resources allocated by development partners, the mobilisation of additional resources and project implementation.

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.

EU will be invited to the main monitoring missions and will receive the reports, and will be invited to the Project steering Committee's meetings.

<sup>23</sup> To be financed under the Cooperation Facility.

<sup>24</sup> To be financed under the Cooperation Facility.

## 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. .

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:

- 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. It will include regular monitoring, annual reports and auditing process, with the support of independent consultants & auditors where needed.
- Indicators shall be disaggregated at least by sex. All monitoring and reporting shall assess how the action is taking into account gender equality.
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The implementing agency from the partner Government side will also actively contribute to monitoring and provide regular feedback. Joint supervision missions will be conducted by the implementing agency, on a yearly basis, to closely monitor implementation and the active and meaningful participation of stakeholders.

### 5.2 Evaluation

Having regard to the nature of the action, a mid-term and final or ex-post evaluation may be carried out for this action or its components via independent consultants contracted by the Commission.

Carrying out of mid-term evaluation will be the subject to the decision of the Project Steering Committee, in agreement with the Commission. In such case, the mid-term evaluation will be carried out for problem solving, learning purposes.

A final or ex-post evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that this is a relatively innovative action.

The Commission shall inform the implementing partner at least 1 month 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<sup>25</sup>. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, apply the necessary adjustments.

The financing of the evaluation may be covered by another measure constituting a Financing Decision.

### 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.

<sup>25</sup> See best [practice of evaluation dissemination](#)

## 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.

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.