ANNEX XII

of the Commission Implementing Decision on the Annual Action Programme 2018 (part III) for Environment and Climate Change under the Global Public Goods and Challenges Thematic Programme, to be financed from the general budget of the Union

Action Document for the project “Support to the implementation of Trinidad and Tobago’s Nationally Determined Contribution”

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<thead>
<tr>
<th>INFORMATION FOR POTENTIAL GRANT APPLICANTS</th>
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<td>WORK PROGRAMME FOR GRANTS</td>
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This document constitutes the work programme for grants in the following sections concerning grants awarded directly without a call for proposals: 5.3.1. Installation of a solar park at the Piarco International Airport (PIA).

<table>
<thead>
<tr>
<th>1. Title/basic act/CRIS number</th>
<th>Support to the implementation of Trinidad and Tobago’s Nationally Determined Contribution - ENV/2018/041-552; financed under the Development Cooperation Instrument (DCI)</th>
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</table>
| 2. Zone benefiting from the action/location | The Republic of Trinidad and Tobago (T&T)  
The action shall be carried out throughout the country with the project team based in the capital Port-of-Spain. |
| 4. Sector of concentration/thematic area | Climate Change / Mitigation  
DEV. Aid: YES |
| 5. Amounts concerned | Total estimated cost: EUR 4,033,000  
Total amount of EU budget contribution EUR 4,000,000  
This action is co-financed by potential grant beneficiaries for an indicative amount of EUR 33,000. |
| 6. Aid modality(ies) and implementation modality(ies) | Project Modality  
Direct management – grant – direct award;  
Direct Management – procurement of services.  
Indirect management with UNDP |
|---------------------------------------------------|---------------------------------------------------------------|
| 7 a) DAC code(s)                                  | 23230 – Solar energy – 80%  
23183 – Energy conservation and demand-side efficiency – 10%  
23110 – Energy policy and administrative management – 10% |
| b) Main Delivery Channel                          | UNDP – 41114  
Public Corporation in recipient country - 12003 |
| 8. Markers (from CRIS DAC form)                   | General policy objective  
Participation development/good governance  
Aid to environment  
Gender equality (including Women In Development)  
Trade Development  
Reproductive, Maternal, New born and child health |
|                                                   | Not targeted  
X  
☐  
X  
☐  
X  
☐  
☐  
☐  |
| RIO Convention markers                            | Not targeted  
Biological diversity  
Combat desertification  
Climate change mitigation  
Climate change adaptation |
|                                                   | Significant objective  
☐  
☐  
☐  
☐  
☐  |
|                                                   | Main objective  
☐  
☐  
☐  
☐  
☐  |
| 9. Global Public Goods and Challenges (GPGC) thematic flagships | Global Climate Change Alliance (GCCA+) |
| 10. SDGs                                          | SDG Goal 13 on Climate Action (primarily)  
SDG Goals 7 on Affordable and Clean Energy, 12 on Responsible Consumption and Production and 9 on Industry, Innovation and Infrastructure (secondary) |
SUMMARY

The proposed action falls under the Global Climate Change Alliance+ Flagship Initiative of the Global Public Goods and Challenges Programme (2014-2020). The beneficiary country is Trinidad and Tobago, the allocated budget is 4 million EUR and the implementation will take place over a period of 48 months.

The action is designed to assist Trinidad and Tobago in the achievement of its commitments to the global community under the UNFCCC/Paris Agreement as laid down in its Nationally Determined Contribution (NDC) as well as in the achievement of its national policy target of 10% of total electricity generated from renewable energy sources by 2021. Specifically, the action aims at an increased availability and use of energy from renewable sources and at increased efficiency levels in the consumption of energy. To these ends, the action will (1) facilitate the installation of solar energy systems: small scale systems in public utilities and remote communities as well as a larger scale solar park with an annual generation capacity of 1,443,830 kWh at the Piarco International Airport; (2) provide technical assistance for the operationalisation of the new, RE/EE–conducive policy and regulatory framework; and (3) support the design and implementation of a public awareness raising campaign on energy efficiency, on correct pricing of energy and on the benefits of using renewable energy.

The action will be partly implemented under direct management and partly under indirect management. The component related to the solar park at the Piarco International Airport will be under direct management and implemented through a direct grant awarded to the Airports Authority of Trinidad and Tobago (AATT). The other components will be managed by the UNDP office in T&T (indirect management).

This action is relevant for the Agenda 2030. It contributes primarily to the progressive achievement of SDG Goal 13 on Climate Action, but also promotes progress towards Goals 7 on Affordable and Clean Energy, 12 on Responsible Consumption and Production and 9 on Industry, Innovation and Infrastructure.
1  CONTEXT

1.1  Sector/Country/Regional context/Thematic area

The Republic of Trinidad and Tobago (T&T) is a twin-island state located in the southern part of the Lesser Antilles in the Caribbean. T&T has an estimated population of 1.37 million inhabitants, with a growing rate of 0.3% per year.\(^1\) The majority (96%) of the population lives in Trinidad which is the largest island having a land area of 4,827 km\(^2\). The total land area of T&T adds up to 5,127 km\(^2\).

With a Human Development Index (HDI) as high as 0.78 (and 65\(^{th}\) position on the HDI country ranking),\(^2\) T&T is one of the most prosperous countries in the Caribbean region. The island largely owes this favourable position to its oil and natural gas reserves. Within the region, T&T is the leading producer of oil and gas and its economy is mainly based on these two resources. The oil and gas sector accounts for about 18.8\(^3\) of the Gross Domestic Product (GDP) and 80% of export income,\(^4\) though less than 5%\(^5\) of employment. Due to falling energy prices, the sector’s contribution to the GDP has significantly diminished over the last period from 44.8% in 2011 to 18.8% in 2016. The country’s economy is characterised as a “dual economy” with the energy sector being wealthy and well-advanced while the rest of the economy is lagging behind. Further, T&T belongs to the group of Small Island Developing States (SIDS) with the attendant constraints of limited technological, technical, financial and human resources and a relatively small-scale economy. The above facts and trends suggest an unmistakable level of economic vulnerability, inspite of the country’s high position on the HDI ranking.

As a SIDS, T&T is highly vulnerable to the effects of climate change (CC), particularly to sea level rise affecting coastal habitats and to changing rainfall patterns causing increased flooding and hill erosion. Though T&T is not located within the main Atlantic Hurricane Belt, the country, and particularly Tobago, has been experiencing an increased frequency and intensity of tropical storms since climate change was recognised as a global phenomenon.

T&T is a Non-Annex I Party to the United Framework Convention on Climate Change (UNFCCC) and a signatory to the Paris Agreement (ratification: February 2018). The country participates actively in the UNFCCC negotiations and submitted already in 2015 its intended Nationally Determined Contribution (iNDC) to the global fight against CC, which turned with the recent ratification of the Paris Agreement into a genuine Nationally Determined Contribution (NDC).

1.1.1  Public Policy Assessment and EU Policy Framework

T&T’s overarching development policy is laid down in the document “Vision 2030 – National Development Strategy (NDS) 2016-2030”. The NDS aims to address the current challenges that the country is facing due to falling energy prices and – as a consequence -

\(^1\) https://worldpopulationreview.com
\(^2\) http://hdr.undp.org/en/composite/HDI
\(^3\) This figure reduced in 2016 due to low energy prices. In previous years these data were 44.8%(2011); 41.1%(2012); 37.2%(2013); 34.2%(2014); and 24.8%(2015) - Central Bank of T&T Data Centre.
\(^4\) Carbon Reduction Strategy, 2015
decreasing public revenues, threatening T&T’s actual standard of living. The strategy builds on a vast consultation process that was conducted to develop Vision 2020 but “
*modifications were made to include relevant issues like climate change and renewable energy, thereby creating an enhanced National Vision to 2030*”. The latter clearly marks the importance that the country currently attaches to CC and renewable energy, both key areas of the present GCCA+ action. The NDS is also characterized by a strong alignment with the United Nations Sustainable Development Goals (UN SDGs).

Specifically related to CC, T&T has a relatively well-developed policy framework with the National Climate Change Policy (NCCP), adopted in 2011, providing overall guidance to the sector. As laid down in the document, the NCCP aims to provide policy guidance for the development of an appropriate administrative and legislative framework, in harmony with other sectoral policies, for the pursuance of a low-carbon development path for T&T through suitable and relevant strategies and actions to address CC, including sectoral and cross-sectoral adaptation and mitigation measures. Reducing and avoiding greenhouse gas (GHG) emissions from all emitting sectors is one of the main objectives of the policy. The associated mitigation measures that are most relevant to the GCCA+ Action, include: (1) to increase the use of renewable energy by (a) developing a renewable energy policy and standards, (b) by developing suitable fiscal incentives for domestic use and sale to the national grid, and (c) by developing concrete initiatives; and (7) to enhance research and development (R&D) by (a) encouraging R&D in the maximisation of renewable energy sources such as solar, wind, oceans and tides through the development of incentives and institutional arrangements for multipartite involvement including private sector, academia, government and NGOs.

In view of operationalising the NCCP, the “Strategy for Reduction of Carbon Emissions (CRS-Carbon Reduction Strategy)” was developed and adopted in 2015. The strategy targets the country’s three main emitting sectors, which are electrical power generation, industry and transport, and establishes a mitigation action plan over the period 2013-2040.

The country’s policy and legislative framework related to energy is presently in transition. While the current need, mainly driven by the economic trends and global commitments to mitigate CO2 emissions, to shift from a heavily fossil fuel based economy towards a low carbon economy is explicitly recognised in policy documents (e.g. Vision 2030, Energy Policy6) and public statements7, the policy measures and regulations in force have not yet been adjusted to this new situation. In fact, some of these current policy measures (e.g. subsidised electricity prices) and regulations (e.g. prohibition for small-scale renewable energy producers to connect to the grid) put barriers to an effective shift to renewable energy (RE) and energy efficiency (EE). Ongoing steps to make the policy/legal/regulatory environment more conducive to RE/EE include the development of a national energy policy green paper and the development of regulations to implement a Feed-in-Tariff (FiT).

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6 “Maximise, where practicable, the use of RE (such as solar, wind and wave energy) through incentives, concessions and enabling legislation, and make reduction of T&T’s carbon footprint a priority by setting appropriate renewable energy production targets, as has been done in the EU where countries have been mandated to achieve a target of 20% of energy production from renewable energy sources by the year 2020.” http://www.energy.gov.tt/about-us/gortt-policy-context/

7 “By the year 2021, 10% of the country’s energy will be generated from renewable sources”. Ministry of Finance, Budget Statement 2016.
In relation to the EU policy framework, the action falls under the GCCA+ which is one of the Flagship Initiatives under the Global Public Goods and Challenges (GPGC) programme (2014-2020). The overall goal of the GCCA+ initiative, as outlined in its latest concept note, is to assist the world’s most vulnerable countries to respond to CC. Within this overall framework, the GCCA+ adopted priorities in terms of countries, thematic areas and types of interventions. The present action is fully coherent with the following priorities: T&T is recognised as a SIDS; the foreseen support falls within the thematic area of “Support the creation and implementation of concrete adaptation and mitigation strategies”; and the proposed intervention aligns with the priority “implementation of UNFCCC commitments, including NDCs”.

Further, the GPGC programme promotes synergy and co-benefits with its other programmes/objectives. In this respect, the present action considerably contributes to the area/component for Sustainable Energy, which specifically aims at (1) improving access to modern, affordable, secure and sustainable energy and renewable energy as a key driver for poverty eradication and inclusive growth; (2) energy efficiency; (3) sustainable energy in poor urban and semi-urban communities; and (4) smart energy use and the implementation of innovative projects including decentralised approaches. The proposed action further supports the transformation towards an inclusive green economy in T&T by creating a market for the national private sector active in the area of renewable energy, while also engaging this sector in building capacity amongst the users/beneficiaries in the proper maintenance of solar power systems.

1.1.2 Stakeholder analysis

The main stakeholders for the action include:

- The Multilateral Environmental Agreements Unit (MEAU) of the Environmental Policy and Planning Division (EPPD) of the Ministry of Planning and Development (MPD). The MEAU is the designated National Focal Point for the UNFCCC and is the Government Agency in charge of coordinating all CC-related actions in the country, including NDC implementation. Availability of sufficient human resources is an issue within the MEAU. Only three technical officers are dedicated to managing requirements under the UNFCCC, which appears to be less than the minimal complement of staff required to coordinate the implementation of both the climate change mitigation and adaptation requirements of the Convention⁸.

- The European Development Fund (EDF) Unit of the Ministry of Planning and Development (MPD). This EDF Unit is responsible for keeping oversight of all donor-funded interventions in the country and coordinates with the Ministry of Finance on financial issues related to donor funding.

- The Energy Research and Planning Division (ERPD) of the Ministry of Energy and Energy Industries (MEEI)⁹. Increasing the use of Renewable Energy Technologies is one of the objectives of the Division’s Strategic Plan. In line with this objective, the ERPD works on the adjustment of the current legislative and regulatory framework to make it more RE-friendly. The Division also monitors the effectiveness and progress in the implementation of the Sustainable Energy Roadmap, prepared with

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⁹ http://www.energy.gov.tt/about-us/the-organisation/divisions/energy-research-and-planning/
EU-funded Technical Assistance (TA). The ERPD counts with a dedicated Renewable Energy and Energy Efficiency Team.

- The **Airports Authority of Trinidad and Tobago (AATT)**. The AATT is a statutory body, established by the Airports Authority Act, No. 49 of 1979, under the umbrella of the Ministry of Works and Transport. Its mandate is to develop and manage the country’s airport estates, including the development, maintenance and improvement of its facilities, thereby ensuring the availability of efficient, secure and safe aviation services and commercial viability.

- The **Tobago House of Assembly (THA)**. The THA was created by Act 37 of 1980 for “making better provision for the administration of Tobago and for matters therein”. The THA comprises a Legislative Arm, an Executive Arm and 10 operational divisions. Project activities carried out in Tobago will have to be coordinated with the concerned division(s) of the THA.

- The T&T Office of the **United Nations Development Programme (UNDP)**. Over the past decade, UNDP T&T has been supporting the country in complying with UNFCCC-related obligations such as the National Communications, including GHG inventories, as well as with the development and - recently – the implementation of the NDC. For the latter, an NDC Implementation Plan was developed based on extensive consultations. Currently, under the second phase of the Low Emissions Capacity Building (LECB) programme, UNDP is providing assistance in the effective implementation of parts of the NDC. Based on the shortage of human resources at the MEAU and on its relevant experience in both NDC implementation and project management, UNDP is proposed as implementing agency for the present GCCA+ action.

- The **University of Trinidad and Tobago (UTT)**. UTT has excellent expertise in conducting GHG inventories based on the more advanced international methodologies. Accordingly, UTT has been the main collaborating partner of the Government as well as of the UNDP Office (National Communications, NDC development and implementation) in matters related to GHG inventories and reduction estimates. This collaboration, where appropriate, will be continued in the frame of the GCCA+ project activities.

- **T&T population**. The population in general will be targeted in the public awareness activities supported by the action. Further, the population will benefit from the transition to a modern low carbon economy which will (1) be less dependent (and hence less vulnerable) on oil and gas prices set by the world market, (2) make available public funds - currently used for subsidising electricity consumption - for other more sustainable development objectives, (3) create new green jobs and markets, and (4) reduce local air pollution levels.

- **Private sector**. Referring again to the above-mentioned potential of creating new green jobs and markets, the private sector will benefit from new opportunities to grow and diversify.

### 1.1.3 Priority areas for support/problem analysis

Due to its dominant fossil fuel based economy, including its high domestic consumption of fossil fuel induced by the low, subsidised tariffs for electricity, Trinidad and Tobago has a level of energy consumption and per capita emissions of GHG that are exceptionally high for a SIDS. For example, the average bi-monthly energy consumption of households was about 2,100 kWh in 2015. When compared to other regions, 43% of the households in T&T have a
consumption level that is on par with the average North American household, twice the level of an average European household and 3 times the global average. As for GHG emissions, Trinidad and Tobago contributes less than 1% of the global annual emissions. Nevertheless, the country’s per capita emissions amount to 34.16 metric tonnes of CO₂, putting Trinidad and Tobago on the second highest position in the country ranking for per capita GHG emissions.

The above clearly shows that there is ample scope in the country for improvements in energy efficiency and for reductions in GHG emissions, which is e.g. well reflected in T&T’s Carbon Reduction Strategy and in the Nationally Determined Contribution to the UNFCCC/Paris Agreement. Regarding the NDC, T&T committed to achieve a reduction in overall emissions of 15% from the Business as Usual (BAU) scenario by 2030, which in absolute terms corresponds to 103,000,000 metric tonnes of CO₂ equivalent. In line with the Carbon Reduction Strategy, the three main emitting sectors (power generation, industry and transport) will be targeted. The estimated cost of meeting the NDC objective is USD 2 billion, which is expected to be met partly through domestic funding (unconditional commitment) and partly through international funding (conditional commitment). The unconditional commitment concerns the reduction of public transport emissions by 30% or 1,700,000 metric tonnes of CO₂e compared to the 2013 level by December 2030.

The present GCCA+ action is designed to assist Trinidad and Tobago (1) in the achievement of its conditional NDC commitment as well as (2) in the achievement of its national policy target of 10% of total electricity generated from renewable energy sources by 2021.

2 RISKS AND ASSUMPTIONS

<table>
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<tr>
<th>Risks</th>
<th>Risk level (H/M/L)</th>
<th>Mitigating measures</th>
</tr>
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</table>
| The Trinidad and Tobago Electrical Company (T&TEC) continues to resist grid connection for the energy generated by the solar power systems installed by the project and the existing legislation - acting as a barrier to allow RE on the national grid – will not be timely amended. | M                  | The AATT to conclude an agreement with T&TEC.  
The existing legislation allowing T&TEC to refuse grid connection of RE systems is currently heavily under pressure / review.  
Converting the installations to off-grid systems. |
| The AATT does not succeed in raising enough funding for the solar energy project in Piarco International Airport (PIA). | L                  | Active fundraising has not really started yet and the European Investment Bank (EIB) already expressed an interest. Also, funding opportunities under the United Arab Emirates (UAE) – Caribbean Renewable Energy Fund were explored and the PIA solar energy project results to be suitably eligible.  
Promotion of the project in view of |
fundraising is envisaged for the coming months (June – September 2018). GCCA+ funds will cover the completion of one (out of six) stand-alone solar park.

| The Public Awareness Campaign does not lead to the envisaged changes in behavior. | M | This component will be implemented through grant awarding following a call for proposal. The quality of the design of the campaign, in particular related to its potential of effectively inducing changes in behavior, will be a major criterion in the selection of the best proposal. |

**Assumptions**

The political will as expressed in (draft) policies, statements and legislative proposals to adjust the current energy-related policy and regulatory framework and make it more conducive for the production and use of RE and for increasing EE, will soon be approved at the highest levels so that it can be put into practice.

### 3 Lessons learnt, Complementarity and Cross-Cutting Issues

#### 3.1 Lessons learnt

The performance of the EU-funded budget support programme for the environmental sector in T&T has been unsatisfactory. The agreed targets for several of the indicators were not achieved, a second tranche of the allocated budget could not be disbursed and the interest of the concerned government agencies to remediate the situation has been minimal. Amongst other factors, the implementation of the project has seriously suffered from bureaucratic processes and excessive delays in official responses and validations. Based on this very recent experience, the implementation of the present GCCA+ action will be delegated to an international organisation. (see section 5 for further details).

The following factors, generally recognised as “success factors”, have been incorporated in the design of the action:

- Strong alignment with national/local policies and priorities. The action directly contributes to the achievement of national objectives (by 2021, 10% of the produced energy must come from RE sources) and commitments to the global community (NDC to the UNFCCC/Paris Agreement).
- Involvement of national/local stakeholders during the formulation phase. Several stakeholder meetings were conducted during the formulation mission and priorities as expressed by the stakeholders were taken on board.
- Focus on a well-defined area (CC mitigation through enhancing RE and EE, with a direct link to NDC implementation) that is addressed holistically (awareness, institutional support, effective installation of RE systems to demonstrate tangible outputs and results).
- Good balance between the different key elements of the project: the range of activities & expected outcomes, the number of involved stakeholders, the budget, the duration, and the procurement requirements.

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3.2 Complementarity, synergy and donor coordination

The action builds on the outcomes of previous, donor-funded interventions. More specifically, the GCCA+ action will implement elements of proposals/plans/studies that were outputs of other donor-funded interventions:

- The solar power project in Piarco National Airport constitutes a direct implementation of the study “Feasibility study on renewable energy at Piarco International Airport, April 2018”, carried out under the EU-funded ICAO-EU Joint Assistance Project “Capacity Building for CO2 Mitigation from International Aviation”.
- All proposed activities directly contribute to the implementation of the Sustainable Energy Roadmap (2021-2030) which was developed by the EU Technical Assistance Facility for the Sustainable Energy for All Initiative (SE4ALL) under the title “Providing Technical Support to the EU Delegation to T&T to organise and implement the Clean Energy Conference aiming at providing EU Expertise in the field of Sustainable Energy”.
- All proposed activities are listed and referenced in the NDC Implementation Plan, developed under the UNDP-implemented Low Emissions Capacity Building (LECB) Programme, jointly funded by the EU, the German Ministry of Foreign Affairs, and the Australian Government.

During implementation, close coordination will be ensured, and, if relevant, synergies established with:

- Phase II of the LECB programme, implemented by UNDP/MEAU/MPD. Phase II of the programme focuses on supporting NDC implementation, particularly through the operationalisation of the already designed Measuring, Reporting and Verification (MRV) system and through the development and implementation of a Financial Investment Plan as well as NDC-related Gender Action Plan. Possible synergies: (1) the GCCA+ action will cooperate in the MRV implementation and e.g. provide the required data in the required format; (2) the GCCA+ action can learn from the Gender Action Plan and apply relevant elements of this Plan.
- The EU/11th EDF funded project, still in preparation, that aims to provide support to a Competitive and Innovative Economy in Trinidad and Tobago. Under this project, the establishment is envisaged of a Centre of Excellence in Energy Efficiency (EE) and Renewable Energy (RE) with the objective of enhancing networking amongst the active players in the EE/RE sector to develop and implement innovative sustainable, low carbon solutions to current and future energy needs in T&T. Energy audits will form part of this activity. Possible synergies: exchange of experiences and lessons; and active participation in the foreseen networking activities.
- The UNDP/GEF supported project “Preparation of T&T’s Third National Communication and first Biennial Update Report to the UNFCCC”. Possible synergies: the GCCA+ project will provide the project with relevant data and hence contribute to the accuracy and quality of the mentioned documents.

The European Commission and the EU Member States have recognised the specificity of small islands' energy systems and markets. These islands have the potential to be frontrunners in the clean energy transition by adopting new technologies and implementing innovative solutions. Through the Clean Energy for EU Islands Initiative, the Union is acting to develop and support the clean energy potential of European island communities and intends to share its experience with island communities across the world. The programme will use the opportunity created by the Clean Energy for EU Islands Initiative to access and promote best
practices shared by EU islands.

3.3 Cross-cutting issues

Environment/Climate Change: Climate Change mitigation is the main objective of the present action. T&T’s current GHG emission levels will be reduced by the generation of supplemental solar energy and less reliance on fossil fuel-based energy production. In addition, energy efficiency will be promoted through a public awareness campaign (aiming to behavioural change) and through the development and operationalisation of policy measures, including direct incentives. Project implementers will be requested to ensure appropriate waste management measures to deal with hazardous waste associated with solar PV systems.

Rights Based Approach: As mentioned in section 1.1.2 (T&T population), promoting EE and the use of RE comes with a significant potential for T&T to save on public expenditure. These savings can be allocated to other development-relevant purposes that directly contribute to Human Rights targets. This statement is supported by the Sustainable Energy Roadmap which highlights the following co-benefits from a more general uptake of renewables and energy efficiency measures: (1) the opportunity cost from natural gas utilisation lying between 1.6 and 3.2 billion USD by 2030 could be gradually avoided leading to huge foreign exchange gains; (2) large-scale uptake on the demand side (10% savings) can lead to savings of approximately 1 TWh; (3) the promotion of RE and EE according to the prescribed targets could lead to investments of 600 million USD and 400 million USD respectively up to 2030; and (4) the large-scale uptake of RE and EE could lead up to 10,000 direct and indirect new jobs throughout the total value chain of technologies.

Gender: The GCCA+ action has no strong gender focus but principles such as equal opportunities, access and participation will be duly taken on board and compliance will be monitored. If and when the gender component of the LECB programme, Phase II (see above) launches other feasible ideas to promote gender equality in the area of RE and EE, these will be integrated into the action’s implementation.

4 DESCRIPTION OF THE ACTION

4.1 Objectives/results

The overall objective of this action is to support T&T in the achievement of its commitments to the global community under the UNFCCC/Paris Agreement as laid down in its Nationally Determined Contribution (NDC).

The specific objectives are (1) to increase the availability and use of energy from renewable sources; and (2) to increase the efficiency levels in the consumption of energy.

The expected outputs are: (1) strengthened capacity to produce electric energy through solar energy systems and maintain these systems, (2) operational systems for the effective implementation of the new RE/EE-conducive policy and regulatory framework in place; and (3) public awareness raised on energy efficiency, on correct pricing of energy and on the benefits of using renewable energy.

By completion of the project, a significant amount of solar energy systems will have been installed: small scale systems in public utilities and remote communities and a larger scale solar park with an annual generation capacity of 1,443,830 kWh at the Piarco International
This programme is relevant for the Agenda 2030. It contributes primarily to the progressive achievement of SDG Goal 13 on Climate Action, but also promotes progress towards Goals 7 on Affordable and Clean Energy, 12 on Responsible Consumption and Production and 9 on Industry, Innovation and Infrastructure. This does not imply a commitment by the country benefiting from this programme.

4.2 Main activities

4.2.1 Installation of solar energy systems

4.2.1.1 The installation of a large-scale solar panel system at Piarco International Airport

This activity builds on preparatory work carried out by the ICAO-EU Joint Assistance Project “Capacity Building for CO2 Mitigation from International Aviation”. Under that project, a draft feasibility study on the use of renewable energy at Piarco IA has been recently prepared on which this proposal is based. The study is directly linked to T&T’s NDC Implementation Plan, specifically to action E.3.12. Develop and implement a pilot macro-installation project for PV solar at Piarco International Airport.

Airports provide a good potential for the mitigation of GHG emissions as significant emissions can be avoided by eliminating Auxiliary Power Unit (APU) power and replacing it with solar energy when the aircrafts arrive at the gate. The concept is already applied elsewhere (e.g. in Jamaica) and known as the “solar-at-gate” mechanism. The feasibility study examined volumes of solar energy needed and potential locations for installing the required solar panels, carried out a financial analysis and calculated the amounts of avoided GHG emissions under different scenarios. As a result, the study proposes the installation of solar panels at 6 locations with a total annual generation capacity of 23,982 MWh, a total installation cost of USD 29,027,600 and an emission of 16,780 tonnes CO₂ annually avoided. All equipment proposed is hurricane (category 5) – proof, hence in line with CC adaptation key requirements, and appropriate measures to deal with hazardous waste associated with solar PV systems will be put in place.

The Airport Authority of T&T (AATT) will oversee the implementation of the project. For the day-to-day management a project unit will be established. Immediate concerns related to the implementation of the overall project include the search for funds to cover the investment costs and the identification of a contractor.

The present GCCA+ action will support the project by financing the installation of solar panels at location nr. 4 which is close to an existing open car park. Ground-mounted solar panels will be installed over an area of 1.54 ha with an annual generation capacity of 1,443,830 kWh and the potential to avoid annually an emission of 1,010 metric tonnes CO₂. The installation cost is estimated at 1,701,000 USD (equivalent to 1,409,279 EUR).
4.2.1.2 Installation of solar energy systems\(^{10}\) in public utilities and remote communities with increased capacity to maintain solar power systems

As indicated above, by 2021 T&T aims to generate 10% from its energy from renewable sources. Implementation, however, is slow mainly due to lack of incentives and existing regulatory barriers. While the government is making progress to make the policy/legislative environment more conducive for the desired shift towards renewable energy sources (RES), the project will support the process by installing solar energy systems that will supply public utilities and/or remote and more vulnerable communities with RE. Apart from making clean and sustainable energy available to the direct beneficiaries, the systems will also serve as pilot or demonstration projects with a view to enhancing their adoption and replication, as well as providing visibility and utilitarian value. In that sense, preference will be given to grid connected RE projects as there is limited experience with these in the country. The MEEI hopes to learn from these pilot projects in view of subsequently running an efficient and informed roll out process of small-scale grid-connected RE systems.

The activity is directly linked to the following action under the NDC Implementation Plan: “E.3.11. Develop and implement pilot micro-installation projects (1 MW) for PV solar for low income communities and geographically remote communities in Trinidad and Tobago”.

Chronologically, the following steps will be undertaken:

- Identification of adequate locations, based on criteria developed in consensus with MEEI, MEAU and THA (in defining the criteria, this step provides an opportunity to promote gender equality).
- Preparation of a technical/financial dossier for each of the selected locations. All systems will be hurricane – proof.
- Procurement of equipment and materials (supply contracts) and procurement of labour services for the installation (works contracts).
- Enhance the chances for future sustainability by (1) capacity building\(^{11}\) of the different categories of beneficiaries in proper maintenance and basic repair works of the solar power systems and (2) guiding the beneficiaries in the establishment of a financial system that will provide the necessary funds for covering future maintenance and replacement costs.
- Appropriate measures to deal with hazardous waste associated with solar PV systems will be put in place.
- Monitoring the implementation of the supply and works contracts (supply, installation, capacity building) and the effective operation of the solar energy systems.

In view of the importance as a learning experience, staff of the RE & EE team of the MEEI will actively participate in relevant steps of the process.

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\(^{10}\) According to the Sustainable Energy Roadmap, the optimum mix of sources for RE is roughly 70% solar, 20% wind and 10% waste.

\(^{11}\) Capacity building needs will be addressed in the technical/financial specifications prepared by the TA and will consequently be part of the supply contracts.
4.2.2. Support to the implementation of the new, RE/EE-conducive policy and legislative framework

Referring to the ongoing work of adjusting the current policies and regulations to make them more conducive to power generation by renewable sources (RE) and to reduced energy consumption (EE), the MEEI requested a project component under which technical assistance could be provided for the operationalisation of the new policies and regulations. As the situation is rapidly evolving with many players involved (including donor-funded interventions), the precise nature of the support needed at the moment that the project will be implemented cannot be predicted. But, in more general terms, it will concern the design of operational systems, inspection and monitoring schemes, certification schemes, etc. as well as the development of a series of incentives (e.g. for replacement of old electrical appliances with low efficiency) to enhance uptake. In terms of resource allocation, this activity will be considerably less important than the previous activity. The idea is to have some provision to address barriers and challenges as they appear and/or to fill gaps that will be identified during project implementation.

Two examples of actions from the NDC Implementation Plan that could be covered under this activity are: “E.2.7. Conduct research and determine local energy standards (and energy ratings) for key household appliances and products”; and “E.4.1. Establish an appropriate public-private partnership model for funding projects for energy conservation, energy efficiency and renewable energy and climate change issues in the industry and commercial sectors in T&T.”

4.2.3. Public awareness raising on Energy Efficiency, Correct Pricing and Renewable Energy

Pending the expected increases in the electricity tariff to reflect real costs, coupled with the general lack of awareness on energy conservation, the MEEI sees a critical need for a Public Awareness Campaign to inform on the financial and ecological costs of energy production and to promote efficient use of electricity. Such a campaign is believed to be instrumental to initiate and to promote the highly needed transition from an energy inefficient culture to a more sustainable, energy conserving society. The campaign will focus on the following outputs:

- Population understanding the background and the need for the review of the current electricity tariffs;
- Population understanding the benefits of using energy generated by renewable sources versus fossil fuel;
- Population sensitized on the need for efficient use of energy;
- Population informed on different practical ways and mechanisms to increase their energy efficiency;

and aim at attendant changes in behaviour, ultimately resulting in a reduction of T&T’s per capita carbon footprint, and contributing to meeting the country’s local and international commitment to climate change mitigation.

The activity aligns with several actions from the NDC Implementation Plan. Under the Energy Sector, the activity aligns with: E.1.2. Undertake public awareness campaigns on the envisaged adjustment (increase) of the electricity rates to better reflect the real cost; E.2.4. Design and implement a public awareness programme on energy conservation and energy efficiency; E.2.8. Design and implement a local voluntary energy rating programme (including public awareness) to promote energy efficiency in homes, businesses and products;
E.3.6. Design and implement a public awareness programme for Feed-in-Tariffs for Renewable Energy installations; and E.4.2. Design and implement an education campaign on energy efficiency, energy conservation and renewable energy which is integrated into the national school curriculum for primary and secondary schools. As for the Industry Sector, there are: I.1.2. Design and implement a sectoral awareness campaign on the ESCO (Energy Service Company) policy for energy efficiency in the power generation, industry (light and heavy) and commercial sectors to promote energy audits for implementing energy efficiency measures; I.3.4. Design and implement a public awareness programme on the T&T ETS (Emissions Trading Scheme), including its design and contribution to GHG emission reductions and to the NDC implementation; and I.5.3. Design and implement a public awareness programme on the Industry Energy Conservation and Efficiency Challenge and Recognition Programme, including success stories, case studies and contribution to GHG emission reductions and to the NDC implementation.

4.3 Intervention logic

The overall objective of the GCCA+ action is to support T&T in the implementation of its NDC, and hence in meeting the GHG emission reduction targets as laid down therein. The achievement of the overall objective will be measured in GHG emission reductions.

As indicated in the specific objectives, the action will focus on the areas of Renewable Energy and Energy Efficiency, both providing ample scope for reductions in GHG emissions, and hence contributing to the Overall Objective and its indicator in a direct way.

The main activity (4.2.1.) envisages the concrete installation of solar power systems, in different types of locations and of different scales in capacity. Once operational, they will be directly effective in avoiding CO₂ emissions caused by fossil fuel burning. Activity 4.2.3. (public awareness) aims at a population-wide change in behaviour related to energy consumption. When successful, also this activity should directly lead to a reduction in GHG emissions. Activity 4.2.2 addresses the policy and regulatory environment, but with a focus on operationalising the new elements and adjustments (e.g. policy measures and adapted regulations) that are currently in different stages of development and validation, and that should provide a more enabling environment for the adoption of RE and for being EE. In that sense, the activity also contributes to the ultimate target, though in a more indirect way.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country, referred to in Article 110 of Regulation (EU, Euratom) No1046/2018.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4.2 will be carried out and the corresponding contracts and agreements implemented, is 48 months from the date of entry into force of the financing agreement. Extensions of the implementation period may be agreed by the Commission’s authorising officer responsible by amending this decision and the relevant contracts and agreements; such amendments to this decision constitute technical amendments in the sense of point (i) of Article 2(3)(c) of Regulation (EU) No 236/2014.

5.3 Implementation modalities

Both in indirect and direct management, 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 affecting the respective countries of operation\textsuperscript{12}.

5.3.1. Grant: direct award for the installation of a solar park at the Piarco International Airport (PIA) (direct management)

(a) Objectives of the grant, fields of intervention, priorities of the year and expected results

The grant will allow the full implementation of activity 4.2.1.1. Concretely, the grant will finance the installation of solar panels at location nr. 4 of the entire PIA solar power project. At this location, which is close to an existing open car park, ground-mounted solar panels will be installed over an area of 1.54 ha with an annual generation capacity of 1,443,830 kWh and the potential to avoid annually an emission of 1,010 metric tonnes CO\textsubscript{2}. The installation cost is estimated at 1,701,000 USD (equivalent to 1,409,279 EUR).

The necessary procedural steps for this grant awarding will be undertaken in the very early stages of the implementation of the GCCA+ action.

(b) Justification of a direct grant

Under the responsibility of the EU Delegation to Trinidad and Tobago, being the Commission’s authorising officer responsible, the grant may be awarded without a call for proposals to the Airport Authority of Trinidad and Tobago (AATT). A prior approval is being drafted and to be included in the submission.

Under the responsibility of the EU Delegation to Trinidad and Tobago, being the Commission’s authorising officer responsible, the recourse to an award of a grant without a call for proposals is justified because the action has specific characteristics requiring a specific type of beneficiary for its technical competence, specialisation or administrative power (Article 190(1)(f) of the RAP). In fact, the envisaged beneficiary, the Airports Authority of Trinidad and Tobago (AATT) has the legal mandate to develop and manage the country’s airport estates, including the development, maintenance and improvement of its facilities, thereby ensuring the availability of efficient, secure and safe aviation services and commercial viability. The implementation of the broader solar energy project for Piarco International Airport, a part of which is proposed to be funded by this GCCA+ action, falls under AATT’s official mandate. AATT is thus the implementer with the legal mandate. Additional reasons why this component is not made part of the Delegation Agreement with UNDP are that AATT is used to manage large budgets, it has substantial responsibilities exceeding those of the UNDP office in T&T, the activity is not the core technical expertise UNDP has, and UNDP would have to be paid a substantial commission for administrative costs. The AATT has the administrative capacity to comply with Devco rules for grants. The Finance Department has mechanisms in place to handle large scale disbursements proven by its loan management. The Feasibility Study on the use of solar energy at Piarco international airport confirms the corporate profile of the Authority and its capacity to manage major airport development projects. Moreover, visibility advantages are expected compared to implementing it through UNDP.

(d) Essential selection and award criteria
The essential selection criteria are the financial and operational capacity of the applicant. The essential award criteria are relevance of the proposed action to the objectives of the call; design, effectiveness, feasibility, sustainability and cost-effectiveness of the action.

(e) Maximum rate of co-financing
The maximum possible rate of co-financing for this grant is 100% of the eligible costs of the action.

If full funding is essential for the action to be carried out, the maximum possible rate of co-financing may be up to 100%. The essentiality of full funding will be justified by the EU Delegation to Trinidad and Tobago, being the Commission’s authorising officer responsible in the award decision, in respect of the principles of equal treatment and sound financial management.

It should be noted though that the action covers the costs (100%) of installing solar systems at only one location out of six locations planned. The total installation cost (6 locations) is estimated at 29,027,600 USD. In that sense, the action cofinances the full Piarco International Airport solar park project for about 6% of the total cost.

(f) Indicative quarter to conclude the grant agreement: First quarter of the year 2019.

5.3.2. Procurement (direct management)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Type (works, supplies, services)</th>
<th>Indicative number of contracts</th>
<th>Indicative quarter of launch of the procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit &amp; Evaluation</td>
<td>Services</td>
<td>2</td>
<td>Quarter 16</td>
</tr>
</tbody>
</table>

5.3.3. Indirect management with an international organisation
A part of this action may be implemented in indirect management with UNDP. This implementation entails the activities 4.2.1.2, 4.2.2 and 4.2.3. Firstly, UNDP will organise the different procurement and grant awarding processes and closely follow-up on the subsequent steps in the respective procedures. The entrusted entity will carry out the following budget-implementation tasks and, concretely, the following contracts/grants must be awarded following the required procedures:

- A service contract to provide technical Assistance for the implementation of activities 4.2.1.2 and 4.2.2. The procurement procedure for this contract must be initiated as soon as possible after the start of the action’s implementation period. The contract
will concern the provision of a full time Technical Assistant for a period of 3 years and of 8 months additional short-term TA inputs. The specific needs for the latter will be determined during project implementation, but most likely they will relate to the implementation of activity 4.2.2.

- Works and supplies contracts in relation to activity 4.2.1.2. More specifically, it will concern the purchase of equipment, materials and labour to install the solar power systems in the locations as identified and specified by the TA in charge. The procurement will be carried out in close collaboration with the TA. The details will be specified during the initial identification survey. The process will start as soon as the identified locations and technical specifications will have been validated by the action’s steering committee.

- A grant contract for the implementation of activity 4.2.3 will be awarded on basis of a Call for Proposals (CfP) procedure. As mentioned before, a key criterion in the assessment of the submitted proposals will be their potential to effectively generate changes in behaviour. Only one contract will be awarded. Importantly, implementation of the mandatory EU communication and visibility component will be integrated in this CfP/contract.

Further, UNDP will assume responsibility for the day-to-day management of the implementation of the above contracts. This includes: monitoring implementation progress and quality as well as performance of the contractors, financial management (payments, accounting and reporting, budget monitoring and – if needed – revision, and organising the required external audits), ensuring coordination with the relevant stakeholders and with similar interventions/programmes, and providing secretariat services to the action’s steering committee (convening meetings, establishing agendas, writing minutes and related action plans, monitoring progress on implementation of action plans).

Implementation by UNDP is justified because of (1) being at present the main actor in the country supporting NDC implementation as well as compliance with other UNFCCC related commitments (national communications) and (2) having the required human capacity in-house (contrary to the EUD and the MEAU where staff resources are too limited). Besides, UNDP has a longstanding presence in T&T and a well-established Country Office in Port-of-Spain, both facilitating coordination tasks and continuity.

5.4 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 in accordance with Article 9(2)(b) of Regulation (EU) No 236/2014 on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

5.5. Indicative Budget
### Table 1: Financial Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>EU Contribution (amount in EUR)</th>
<th>Indicative Third Party Contribution (amount in EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3.1. Direct grant award to the Airport Authority of Trinidad and Tobago</td>
<td>1,500,000</td>
<td></td>
</tr>
<tr>
<td>5.3.3 Indirect management with UNDP</td>
<td>2,400,000</td>
<td>33,000</td>
</tr>
<tr>
<td>5.8 Evaluation</td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>5.9 Audit</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>4,000,000</td>
<td>33,000</td>
</tr>
</tbody>
</table>

#### 5.6. Organisational set-up and responsibilities

A Project Steering Committee will be established to oversee and to provide overall guidance to the implementation of the entire action. The Committee will comprise representatives of the EUD, the MPD/EDF, and MEA Units (with MEAU being the Chair of the Committee), the MEEI/EPRD, the AATT, the beneficiary of the TA Service Contract, the beneficiary of the Grant Contract (public awareness and communication and visibility), and the UNDP office of T&T. The latter will provide secretariat services to the Steering Committee and convene meetings at least 3 times per year.

UNDP will organise a project office in Port-of-Spain; the TA will operate from this office. Other responsibilities of UNDP as main implementing partner were listed under section 5.3.3.

The AATT (Piarco International Airport component) and the grant beneficiary (public awareness/communication and visibility) will operate from their respective offices.

#### 5.7. Performance 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 UNDP’s responsibilities. To this end, UNDP 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 report shall be laid out in such a way as to allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of the action implementation.

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

#### 5.8. Evaluation

[21]
Having regard to the nature of the action, a final evaluation will be carried out for this action or its components via independent consultants contracted by the Commission.

It will be carried out for accountability and learning purposes at various levels (including for policy revision), giving particular attention to the resulting uptake of RE, behavioural change in relation to EE, an estimation of the amounts of GHG emissions avoided and to the identification of remaining gaps and barriers to RE/EE adoption.

The Commission shall inform the implementing partner at least 2 months in advance of the date foreseen for the evaluation mission. 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 report shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Indicatively, one contract for evaluation services shall be concluded under a framework contract at the end of the implementation phase.

5.9. Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements. Indicatively, one contract for audit services shall be concluded under a framework contract at the end of the implementation phase.

5.10 Communication and visibility

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

This action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan of the Action, to be elaborated at the start of implementation.

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

Assuming that the indirect management modality with an international organisation (UNDP) will be applied\(^4\), the Joint Visibility Guidelines for EC-UN actions in the field shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

6. PRE-CONDITIONS
None.

14 If not, the Communication and Visibility Manual for European Union External Action will be used.
The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and may be updated during the implementation of the action, no amendment being required to the financing decision. When it is not possible to determine the outputs of an action at formulation stage, intermediary outcomes should be presented and the outputs defined during inception of the overall programme and its components. The indicative logframe matrix will evolve during the lifetime of the action: new lines will be added for including the activities as well as new columns for intermediary targets (milestones) for the output and outcome indicators whenever it is relevant for monitoring and reporting purposes. Note also that indicators should be disaggregated by sex whenever relevant.

### Results chain

<table>
<thead>
<tr>
<th>Specific objective(s): Impact</th>
<th>Indicators</th>
<th>Baselines (incl. reference year)</th>
<th>Targets (incl. reference year)</th>
<th>Sources and means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall objective: Impact</td>
<td>OO: To support T&amp;T in the achievement of its NDC targets</td>
<td>Reduction in total GHG emissions (in % of BAU scenario)</td>
<td>0%</td>
<td>15%, by 2030</td>
<td>National Communications to UNFCCC</td>
</tr>
<tr>
<td>Specific objective(s): Outcome(s)</td>
<td>SO1. To increase the use of energy from renewable resources</td>
<td>1. Proportion of electrical energy produced by Renewable Energy Sources (in %)</td>
<td>1. TBD</td>
<td>1. 10%, by 2021</td>
<td>1. National Statistics, records of MEEI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Annual electricity consumption per capita (in kWh)</td>
<td>2. TBD</td>
<td>2. TBD</td>
<td>2. T&amp;TEC records, electricity bills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Purchase level of energy efficient electrical household appliances (measured as % of buyers opting for the most EE appliances)</td>
<td>3. TBD during survey before the start of the awareness raising campaign</td>
<td>3. 60% of surveyed population</td>
<td>3. Surveys conducted by MEEI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Acceptance level to pay the cost price for energy (measured as % of surveyed population supporting abolition of subsidised pricing) (sexr disaggregated)</td>
<td>4. TBD during survey before the start of the awareness raising campaign</td>
<td>4. 75% of the surveyed population</td>
<td>4. Surveys conducted by MEEI</td>
</tr>
<tr>
<td>Specific objective(s): Outcome(s)</td>
<td>SO2. To increase efficiency in the current levels of energy consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outputs</td>
<td>1. Strengthened capacity to produce electric energy through solar energy systems and maintain these systems</td>
<td>1.1. Power generation capacity of solar panels at location 4 of PIA (in kWh) <strong>(EURF L2 no12)</strong></td>
<td>1.1. 0</td>
<td>1.1. 1 443 830, by completion of the project</td>
<td>1.1. Project progress reports, AATT reports</td>
</tr>
</tbody>
</table>

### APPENDIX - INDICATIVE LOGFRAME MATRIX (FOR PROJECT MODALITY) 15]
2. Operational systems for the effective implementation of the new, RE/EE–conducive policy and regulatory framework in place

<table>
<thead>
<tr>
<th>Number of public utilities (disaggregated by sector or type of utility) and remote communities provided with solar power systems by the project</th>
<th>1.2. 0</th>
<th>1.2. TBD during foreseen identification study</th>
<th>1.2. Project progress reports</th>
<th>sufficiently convincing and result in effective behavioural changes. Energy efficient electrical household appliances are available in sufficient quantities and at reasonable prices.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total power generation capacity of solar panels installed in public utilities and remote communities (in kWh) <strong>(EURF L2 no 12)</strong></td>
<td>1.3 0</td>
<td>1.3. TBD during foreseen identification study</td>
<td>1.3. Project progress reports</td>
<td></td>
</tr>
<tr>
<td>Number of inhabitants (sex disaggregated) of remote communities benefiting from solar power systems provided by the project</td>
<td>1.4. 0</td>
<td>1.4. TBD during foreseen identification study</td>
<td>1.4. Project progress reports</td>
<td></td>
</tr>
<tr>
<td>Number of beneficiaries (sex disaggregated) trained in maintenance and repair</td>
<td>1.5. 0</td>
<td>1.5. TBD during foreseen identification study</td>
<td>1.5. Project progress reports</td>
<td></td>
</tr>
<tr>
<td>Number of beneficiary groups having installed a financial system for covering maintenance costs</td>
<td>1.6. 0</td>
<td>1.6. TBD during foreseen identification study</td>
<td>1.6. Project progress reports; records of beneficiary groups</td>
<td></td>
</tr>
</tbody>
</table>

3. Public awareness raised on energy efficiency, on correct pricing of energy and on the benefits of using renewable energy

<table>
<thead>
<tr>
<th>Number of new and/or improved operational systems developed by the project and submitted for official validation</th>
<th>2.1. 0</th>
<th>2.1. 6</th>
<th>2.1 Project deliverables, Project progress reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of RE/EE conducive measures and regulatory adjustments developed by the project and submitted for official validation</td>
<td>2.2. 0</td>
<td>2.2. 6</td>
<td>2.2. Project deliverables, Project progress reports</td>
</tr>
<tr>
<td>Validation</td>
<td>3.1. Number of people reached with messages on the benefits of using RE (sex disaggregated)</td>
<td>3.1. TBD during conclusion of concerned grant contract</td>
<td>3.1. Reports of grant beneficiary, Project progress reports</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>3.2. Number of people reached with messages promoting EE behaviour (gender disaggregated)</td>
<td>3.2. TBD during conclusion of concerned grant contract</td>
<td>3.2. Reports of grant beneficiary, Project progress reports</td>
</tr>
</tbody>
</table>

[25]

Electronically signed on 17/06/2018 23:40 (UTC+02) in accordance with article 4.2 (Validity of electronic documents) of Commission Decision 2004/563