Note to the Members of the EDF Committee

Annual Action Programme 2018 in favour of Belize to be financed from the 11th European Development Fund

1. Identification

EDF allocation	EUR 14 015 000
Total cost	EUR 14,015,000 of EU contribution
Basic act	Council Regulation (EU) 2015/322 of 2 March 2015 on the implementation of the 11th European Development Fund

2. Country background

Belize is a sovereign state governed by the principles of parliamentary democracy on the basis of a written constitution. Prime Minister Dean Barrow from centre-right United Democratic Party is now in his third consecutive term. After losing 3 out of 8 municipalities in 2018 municipal elections, in particular the most populated Belize City, he announced to hand over party leadership early 2019. Next general elections are due in 2020.

Since the independence of the country in 1981 Guatemala has a claim on more than 1/3 of Belizean territory (southern border). Upon a commitment signed in December 2008 an arbitration of the International Court of Justice is on the agenda of both countries to be approved by referenda in both countries, initially programmed to be a simultaneous process. On April 15th 2018, Guatemala carried out its referendum with a 96% approval though voters' turnout was only of 26%. In response, Belize announced its own referendum for April 10th 2019, after the re-registration of its voters register.

Belize is an Upper Middle Income Country with a GNI/capita of USD 4 163 (2016). The structure of the economy of Belize has changed over the past 20 years, with a decline of primary and secondary sectors. Agriculture now accounts for 13%, industry 23% and services for nearly 64% of economic activity. The bulk of manufacturing output comes from the processing of primary products, particularly sugar, shrimp and citrus. This sector employs about 25% of the workforce. The services sector, including tourism, has emerged over the last decade as the industry leader, representing 54% of the gross domestic product (GDP) and around 78% of the workforce. Apart from retail and government services, tourism is the largest employer (13%).

The economic outlook for Belize remains challenging. The International Monetary Fund (IMF) Article IV consultation reports published in September 2017 point to growing macro-economic instability due to increasing public debt, close to 100% GDP. Belize remains subject to external risks such as hurricanes and fluctuations of commodity prices (EU driven sugar and banana preferences will cease soon). On the positive side, the real economy has shown some early signs of recovery driven by a strong performance in the tourism sector and some improvement in revenue generation by the agricultural sector.

Belize's main development challenges are rooted in its high vulnerability to external shocks, including terms of trade, natural hazards and impacts of climate change, while the government's ability to address these challenges is constrained by high debt levels and limited fiscal space as well as a weak institutional framework.

3. Summary of the Action Programme

Renewable energy is recognized as an important pillar of Belize´s attempt for sustainable and shock resilient development. Consequently, the sector has become one of the three focal sectors of cooperation under the 11th European Development Fund (EDF) National Indicative Programme. The "Support to Belize Sustainable Energy Roadmap" has a duration of 48 months, with a financial allocation of EUR 14 015 000, and will support the country to implement its policy in the sector.

The overall objective of the project is: **Universal access to electricity from a clean and productive energy sector in Belize**.

The specific objective of the project is: **Enhanced energy efficiency and access to electricity for unserved areas in partnership with private sector providers**.

In order to achieve these objectives, the project will produce the following results:

1. Improved energy infrastructure for unserved villages and households on behalf of the Government and BEL.
2. The capacities and awareness of energy efficiency measures by public and private actors is enhanced.
3. The strategic energy planning process, including improvements in sector governance, regulatory framework, data analysis, and capacity building is strengthened.

4. Communication and visibility

Adequate communication and visibility is a legal obligation for all external actions funded by the EU. The actions will contain communication and visibility measures based on a specific Communication and Visibility Plan for each action, to be elaborated at the start of implementation and supported with the budget provided under each decision. The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations. These plans will be implemented by the Commission, the partner country, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations are included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

5. Cost and financing

Main Activities	EU contribution
Sustainable Energy	13,500,000
CSO funding	515,000
Total EU contribution to the measure	**14,015,000**

The Committee is invited to give its opinion on the attached Annual Action Programme 2018 in favour of Belize.

EN

Annex

of the Commission Decision on the financing of the annual action programme in favour of Belize for 2018

Action Document for Technical Assistance Project for 11th EDF support to the implementation of the "Belize Sustainable Energy Roadmap"

ANNUAL PROGRAMME
This document constitutes the annual work programme in the sense of Article 110(2) of the Financial Regulation and action programme in the sense of Articles 2 and 3 of Regulation N° 236/2014

1. Title/basic act/ CRIS number	Technical Assistance Project for 11th EDF support to the implementation of the "Belize Sustainable Energy Roadmap" CRIS number: **2015/039-231** financed under the 11th European Development Fund	
2. Zone benefiting from the action/location	The action shall be carried out at the following location: Belize	
3. Programming document	11th EDF National Indicative Programme (NIP) for the period 2014-2020	
4. SDGs	Main SDG: 7 Ensure access to affordable, reliable, sustainable and modern energy for all", but also promotes progress towards the goals Other significant SDG(s): 3, 8, 13	
5 Sector of intervention/ thematic area	Climate Change adaptation and mitigation, Environment and Sustainable Energy	DEV. Aid: YES
6. Amounts concerned	Total estimated cost: EUR 14 815 000 Total amount of **EDF contribution**: **EUR 14 015 000** Percentage of NIP: 52%	

7. Aid modality(ies) and implementation modality(ies)	Project Modality Direct management through • Grants: a) directly awarded to Belize Electricity Limited, (BEL) and b) Call for proposals for Civil Society Organisations. • Procurement, direct management (International Technical Assistance Contract); • Direct management will be used for audit, evaluation and visibility contracts. Indirect Management with the Inter-American Development Bank, IDB			
8 a) DAC code(s)	– 230 Energy generation, distribution and efficiency; – 231 Energy generation, distribution and efficiency - general – 232 Energy generation, renewable sources			
b) Main Delivery Channel	European Development Fund_42003			
9. Markers (from CRIS DAC form)	General policy objective	Not targeted	Significant objective	Main objective
	Participation development/good governance	☐	■	☐
	Aid to environment	☐	■	☐
	Gender equality (including Women In Development)	☐	■	☐
	Trade Development	■	☐	☐
	Reproductive, Maternal, New born and child health	■	☐	☐
	RIO Convention markers	Not targeted	Significant objective	Main objective
	Biological diversity	■	☐	☐
	Combat desertification	■	☐	☐
	Climate change mitigation	☐	■	☐
	Climate change adaptation	☐	■	☐
Global Public Goods and Challenges (GPGC) thematic flagships	n/a			

SUMMARY

Renewable energy is recognized as an important pillar of Belize´s attempt for sustainable and shock resilient development. Consequently, the sector has become one of the two focal sectors of cooperation under the 11th EDF National Indicative Programme.

In line with this, the proposed project "Technical Assistance Project for 11th EDF support to the implementation of the Belize Sustainable Energy Roadmap" has duration of 48 months, with a financial allocation of EUR 14.015 million, and will support the country to implement its policy in the sector.

The **overall objective** of the Project reads: "*Universal access to electricity from a clean and productive energy sector in Belize*".

The Project will contribute to this overall objective by assisting all stakeholders to act for moving the country in this direction. Consequently, the **specific objective** is: *"Enhanced energy efficiency and access to electricity for unserved areas in partnership with private sector providers"*.

In order to achieve these objectives, the Project will produce the following **results**:

1. *Improved energy infrastructure for unserved villages and households on behalf of the Government and BEL.*
2. *The capacities and awareness of energy efficiency measures by public and private actors is enhanced.*
3. *The strategic energy planning process, including improvements in sector governance, regulatory framework, data analysis, and capacity building is strengthened*.

The field mission provided clarifications on a number of still open issues but the architecture of the implementation modalities required further consultation between EU, the government and the respective agency. These consultations were done during a HoD April mission and resulted in the following:

1. For the first component, it is proposed to conclude a Grant contract directly awarded to the majority Government-owned Belize Electricity Limited (BEL) for the identification of villages and individuals who would benefit from the program, for the design of micro/mini grid systems, the tendering of corresponding works and service contracts and for the procurement of the main hardware elements for the rural electrification strategy by means of an international open supply tender with different lots.
2. For the second component, indirect management is anticipated by means of a PAGoDA contract with the Inter-American Development Bank (IDB), which has the respective experience and a strong presence in the country[1].
3. For the third component, procurement (direct management) is projected for a Technical Assistance service contract with a suitable consulting consortium to manage the component through partially decentralized management.
4. The Civil Society Organizations will be offered grants through a call for proposals.
5. Audit, evaluation and visibility contracts will be concluded under direct management.

[1] NB: Options for such an agreement with other International Organisations operating in the country, such as the United Nations Development Programme (UNDP), the Caribbean Community Climate Change Centre (CCCCC), the Latin American Energy Organisation (OLADE), or GIZ, were explored, but have proven not to be promising.

1 CONTEXT ANALYSIS

1.1 Context Description

Renewable energy is recognized as an important pillar of Belize´s attempt for sustainable and shock resilient development. Consequently, the sector has become one of the two focal sectors of cooperation under the 11th EDF National Indicative Programme.

The 11th EDF National Indicative Programme (2014-2020) with the EU was signed in November 2014, with a total envelope of EUR 27 million. It contains an amount of EUR 13.5 million for supporting Belize in its energy sector, as a second sector to health, and supplemented by support to public finance management. As a Budget Support modality assessment end of 2016 noted an uncertain macro-economic outlook and a relatively slow performance on the PFM Action Plan, this Action follows the Project approach modality.

Between 2006 and 2013, Belize received a total of EUR 72.4 million under the Accompanying Measures for Sugar Protocol Countries, which was used to improve the efficiency of cane production and processing, as well as in promoting economic diversification. This helped the sector to also diversify into electricity generation and bio-ethanol production. During the period 2012-2013 Belize also received EUR 22.7 million under the Banana Accompanying Measures which also included the electrification of several villages and farms through a grid extension.

1.2 Policy Framework (Global, EU)

The European Union has strong historic ties with Belize. EU relations with Belize are based on the legal framework of the Partnership Agreement with the African, Caribbean and Pacific States (the so called Cotonou Agreement)[2]. Belize is also member of the EU-Cariforum cooperation and as such signed the Economic Partnership Agreement with the EU.

A regional EU sector support programme for the promotion of renewable energies through CARICOM should shortly start. In particular with view to its advanced level of making use of hydropower and biomass for electricity generation, Belize is an important member country for the sector in CARICOM and CARIFORUM, and can provide excellent case studies for other member states in this respect.

1.3 Public Policy Analysis of the partner country/region

Public Policy Assessment[3]

The Project is systematically aligned to a series of policy and strategy documents elaborated by the responsible Ministry in collaboration with several cooperation partners, such as the EUEI-PDF, the IDB, Canada, and OLADE.

In particular, it should serve to assist in the implementation of the **Belize Sustainable Energy Roadmap 2030**. This Roadmap rests on five pillars:

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2 The latest Cotonou Agreement was revised in 2010. http://www.eeas.europa.eu/acp/cotonou_en.htm.

3 C-SERMS, Phase I (2013), Summary and Recommendations for Policymakers; CARICOM-Worldwatch Institute - IDB

1. Efficient Energy End–Use (EE): Dramatically lower energy intensities compared to business-as usual (BAU) in transport, industry, residential and commercial buildings, and public buildings and lighting.
2. Renewable Energy (RE): Shift the energy matrix for electricity, heat and mechanical power away from fossil fuels.
3. Clean Production (CP): Upgrade production systems using the output from Agriculture and Forestry for the co-production of Food, Feed, Fibre, Chemicals and Fuel (including electricity & heat), e.g. solids: pellets, charcoal; gas: biogas, syngas; liquids: ethanol, pyrolysis liquids, biodiesel.
4. Governance: Enhancing national capacity in clean energy and clean production.
5. Infrastructure: Universal access to affordable, modern energy services, including having a resilient grid.

Secondly, it is aligned to Belize's national development framework the "Horizon 2030" which is currently started to be implemented as the **Growth and Sustainable Development Strategy (GSDS).**

The **National Energy Policy Framework** 2011 (NEP) sets out the basic principles and strategies for integrating energy more deeply into Belize's development, striving at making Belize into an electricity exporting country by 2030.

The **National Sustainable Energy Strategy & Action Plan 2014 (NSES)** identified the potential for energy efficiency savings and renewable energy generation of Belize and has become the blueprint for realizing Belize's sustainable energy goals within the electricity sub-sector.

The Nationally Determined Contribution (NDC) prepared for the Paris Agreement considers that Climate Change is the single major threat to food and nutrition security, employment and economic prosperity and may obliterate some of the achievements made towards sustainable development within the country. The NDC fully backs the NSES, putting sustainable energy a main priority for Mitigation. Further, proposed actions in the electricity sector are expected to produce additional adaptation co-benefits such as reduced water and air pollution, energy security, improved energy access, employment creation, and ecosystem protection; all of which lead to increase resilience to climate change.

1.4 Stakeholder analysis

The stakeholders identified can be divided in four major groups:

1. **Government and Public Institutions directly involved in the sector:** Energy Unit of the Ministry of Public Services, Energy and Public Utilities (MPSEPU, the Public Utility Commission (PUC) as the regulator, as well as the Department of Environment (DoE), the Belize Bureau of Standards (BBS), and the Ministry of Economic Development (MED);
   Focus: Coordination of policies and legal framework, facilitation of investment finance, steering, public sensitisation, and rising profile; as well as regulating the sector in accordance with the legal framework;
2. **Power producing and energy service companies:** the Electricity utility BEL (Public Enterprise), Independent Power Producers (IPPs), energy service providers, eventually NGOs.

Focus: Implementing innovative green investment opportunities in the sector for the generation of renewable energies and for serving off-grid communities; cooperation partners for energy efficiency measures.

3. **International Organisations: EU,** IDB, 5Cs, UNDP, GIZ, OLADE, CDB/DFC
   Focus: Potential cooperation partners with own portfolio in the sector, for the promotion of either renewable energy generation, or energy efficiency.
4. **Direct Beneficiaries:** Individual households, public institutions including hospitals, schools, and churches, as well as private sector companies.
   Focus: Customers for off-grid electrification solutions; Implementers of energy efficiency measures.

1a) The Energy Unit under the Ministry of Public Services, Energy and Public Utilities (MPSEPU) constitutes the institutional beneficiary for the EU-Programme and is the main Government actor involved. The Unit was recently upgraded and has in the meanwhile seven qualified professional staff members, well-motivated and eager to initiate progress in the sector. It has been integrated into a Ministry that is responsible for the human resources in the whole public sector which may affect its focus on the energy topics.

1b) The regulator PUC, with its Electricity Sector, is tasked with the regulation of all entities that are licensed under the Belize Electricity Act. Apart from the Belize Electricity Limited (BEL), this applies also to a number of major Independent Power Producers. PUC activities under its Electricity Sector include *inter alia* the prescribing of service quality and related tariff setting for BEL, as well as compliance audits, setting of tariffs, fees and charges, reliability and efficiency reviews for licensees.

1c) The Ministry of Economic Development (MED) as the National Authorising Office is responsible for the cooperation with the EU. For the current action, the Department of Environment (DoE) will have to be involved for the proper disposal of refrigerants, and the Belize Bureau of Standards (BBS), will have to take the lead in setting the appropriate energy efficiency standards.

2a) The Belize Electricity Limited (BEL) is the public utility with a license to generate and supply, transmit and distribute power and energy throughout Belize. The Government holds directly 36.9% of the shares, and through the Social Security Board another 26.9%, in total 63.8%. Fortis Cayman Inc., the holding company of BECOL which operates the three main hydropower dams in the country, owns 33.3%, while the remaining 2.9% is held by about 1,500 minor shareholders. With respect to distribution and transmission, BEL has been granted a monopoly, whereas generation is mostly done by Independent Power Producers (IPPs), with the balance being imported from Mexico (where the share of renewables according to IRENA figures in 2010 was just 4.4%).

2b) So far, only a few major IPPs have a licence to feed into the grid. These are BECOL and Hydro Maya Limited (hydropower facilities), BELCOGEN Limited and Santander Sugar Energy Limited (utilizing bagasse, a by-product from sugar cane production), and BAPCOL (using No. 6 HFO fuel oil). A provision for allowing distributed generation by means of renewable energies is currently under review, but has not been formalised yet. An anomaly operating in parallel to the current legislation is the Farmer's Light Plant Limited (FPL) which is engaged not only in generation, but also in distribution in a separate grid just serving the Mennonite communities of Spanish Lookout.

2c) There are a number of smaller companies in the country which have been specialising in renewable energy solutions, mainly off-grid solar systems for private customers. These include Plenty Belize, GoGreen, ProSolar, and SESB and others. With donor funding from the Swiss Government and some other donors, including the Government of Belize, SESB has installed a mini-grid in La Gracia, serving 43 households with electricity from a solar system. The system is in operation since May 2017 and has been conceived as a pilot project for other mini-grids in Belize. At the moment, it is under negotiation on how the ownership and operation of the scheme is transferred to BEL.

3a) Among the International Organisations operating in the country, it is probably first of all the Inter-American Development Bank (IDB) which has to be mentioned. IDB is the leading source of long-term financing for economic, social and institutional development in the country, also assisting with technical cooperation through grants. The Bank provided several rounds of technical assistance to the former Ministry responsible for the sector, the Ministry of Energy, Science and Technology, and Public Utilities (MESTPU). They supported, e.g., the identification of the energy efficiency and renewable energy potential of Belize, as well as assessing the barriers that prevent that potential from being realized. The technical assistance also included developing recommendations for interventions to overcome the barriers to Belize's energy efficiency and renewable energy potential and an action plan to implement the recommendations. And the IDB is also the hemispheric hub for the Sustainable Energy for all (SE4ALL) initiative. However, under the current country portfolio, energy is not a focal area for cooperation with Belize. The current focus is more on infrastructure and tourism as an economic activity. Nevertheless, their Sustainable Tourism Programme II and their support to the National Transport Master Plan are closely related to aspects of renewable energy and energy efficiency. The Bank also seems to be inclined to consider a re-engagement in the energy sector, upon request from the Belize Government.

3b) The Caribbean Community Climate Change Centre (5Cs) is a regional institution under CARICOM, based in Belize. It runs a number of projects with mainly regional activities and scope, of which some are also directly benefitting the country. For example, the 5Cs has been implementing over the last couple of years the Regional Energy for Sustainable Development Programme. This Programme is coming to an end shortly, in April 2018. Under this Programme, an integrated expert for renewable energy has been seconded by the German Government through GIZ/CIM to the Centre. Among others, they also supported, together with GIZ, the compilation of an assessment of the biogas potential from various sources. However, in general, the activities and Programmes implemented by 5Cs are not considered as having had a great impact in Belize.

3c) The German agency GIZ itself is highly engaged with renewable energies and energy efficiency at the regional level. With its REETA programme, GIZ has been involved in a number of support measures that also benefitted Belize. Because of this leading role, the EU in 2016 agreed to entrust them with the management of its EUR 9 million regional TAPSEC Programme. However, GIZ itself is not accredited in the country, and does not maintain a permanent presence. Therefore, it is not considered a suitable partner for a PAGODA contract ("Pillar Assessed Grant or Delegation Agreement") for implementing the current EU support in the energy sector in Belize.

3d) UNDP is currently operating a national programme in the climate change resilience sector. However, they are operating with relatively junior staff and are not prominent in the energy sector.

3e) The Latin American Energy Organization (OLADE), with headquarters in Quito, Ecuador, is currently Belize's principal partner in respect of the provision of ongoing technical assistance for developing the energy sector. It is supporting a pilot bulb exchange pilot programme with a scope limited to one district, Dangriga which is run by the Energy Unit. However, the organisation does not maintain a significant presence in Belize on which a PAGODA cooperation could be established.

3f) With financing from the Caribbean Development Bank (CDB), the Belizean Development Finance Corporation (DFC) has set-up a credit line of 1m USD for low-interest loans to businesses in the productive sector for green energy and energy efficiency investments of up to 250,000USD, and even higher through a slightly more expensive blending with other funds, plus additional small grants for retrofits under a GEF fund of 200,000 USD. An additional credit line of 1m USD is also available for such measures for residential households, but both have shown a limited uptake so far. While the DFC is not in a position to manage part of the EU funding, they would be a perfect partner for facilitating the implementation of energy efficiency measures by non-state actors, which could be advocated under an EU-funded sensitization campaign.

3g) With grant funding from the United States Trade and Development Agency (USTDA), the Global Environmental Fund (GEF), Rocky Mountain Institute (RMI) and OLADE, the country is conducting a countrywide wind and solar resource assessment study, a least cost generation study and an integrated resource planning all aimed to guide the country's investment in clean, reliable and cost effective generation sources. These studies will all be completed in 2019

3f) A project to improve the country's energy resilience for climate change will commence later this year. This project is financed by a Global Environmental Fund (GEF) grant with co-financing by BEL; this project is scheduled to be completed by mid-2020.

4a) The final beneficiaries include, above all, the population still living off-grid. In 2016, about 3,500 households did not have access to the national grid, with a total population of about 20,000 people. They are among the poorest in the country, with many of them belonging to the indigenous Maya. More than half of these households are concentrated in the southern district of Toledo, along the border with Guatemala. A few of these off-grid households have already acquired a small solar home system. But as they are poor, they had to resort to very basic, cheap, and low quality components. It is especially the batteries of such systems which are getting easily exhausted and then pose an environmental hazard in these rural areas when disposed-off indiscriminately. As of June 2018, BEL with its on-going system expansion program have supplied a further 1,200 households.

4b) According to the latest BEL figures, the grid serves about 70,000 residential customers, plus just over 6,000 customers connected under a preferential social tariff, as they are classified as poor. In addition to these, there are some 16,500 small commercial customers, 1,500 larger ones, and 9 customers classified as "industrial", in addition to the public sector. These BEL customers are the target groups for the Programme, to implement energy efficiency measures that help to reduce the overall energy consumption with a peak power demand of currently about 96MW.

1.5 Problem analysis/priority areas for support

As outlined above, about 2,300 households or approx. 13,000 people do not have access to modern forms of energy. While universal access is an essential pillar of Belize's energy strategy, the cost and efforts to close this gap through grid extension projects are enormous, and cannot be achieved in the short to medium term, if at all in the foreseeable future. But on the other hand, it is clear that these households cannot afford modern and efficient stand-alone solar systems, and cannot be served on a cost-reflective basis through a private sector operator (if that indeed would be legally possible). However, only private sector operators would be in position to cater for these customers, through a suitable business model for the distribution of stand-alone solar systems, or the installation of mini-grids. This is only possible – and fair – if the served off-grid customers are being offered affordable tariffs with regular payments according to usage, while the private service providers are also allowed to make a reasonable profit.

Universal access is recognized as a basis for socio-economic development and as being fundamental to raising living standards. The national target is to achieve it by 2030. BEL is adhering to this strategic guidance by extending its grid lines, and projects that 98% of the population will have access to electricity by 2020.

Although Belize exports crude oil and oil products, it has remained a net importer of fossil fuels for transport and of gas for electricity production. It also receives regularly about 40% of its electricity supply through imports from Mexico, mainly produced by the gas generation capacities established there. This exposes the country to the volatility of price fluctuations in the fossil fuel sector, limits economic development, and degrades the natural environment.

In regional comparison, the average projected electricity tariffs in Belize for the period 2016-2020 are relatively high, at 0.19USD/KWh, thereby having a direct impact on the competitiveness of businesses and on household expenditure. In addition, high import bills for fuels and 80% of electricity is procured in US Dollars which contribute to increasing the countries' foreign exchange deficits and indebtedness.

With view to the wasteful use of electricity which can be observed in the country (e.g. the still widespread use of incandescent bulbs, energy inefficient refrigerators and air-conditioners), promoting energy efficiency is probably the main and most cost-effective tool for Government to reduce the country´s USD requirements to pay its electricity bill. It is not clear why Government has not yet introduced a ban on the import and sale of inefficient household appliances in line with generally accepted efficiency standards, and as has been in place in most other countries in the region. This applies, first of all, for incandescent bulbs which are still for sale in the country, but also for refrigerators, air-conditioners, and washing machines which are also not regulated and account for a large percentage of current household energy consumption. The various Government agencies are aware that the display of energy efficiency standards and labels for these items ought to be made mandatory as soon as possible, but have not yet initiated a Cabinet decision in this respect. These regulatory measures are urgent, in order to prevent the continuation of the import and sale of new, but energy wasting appliances of sub-standard quality which cannot be sold anywhere else anymore in the region. While this would be a first step to slow down the trend of wasteful energy use in the future, this is certainly not enough to change individual behaviour and to get rid of the most wasteful household appliances.

On the other hand, Belize has a large, but still widely untapped potential of renewable energies, in particular wind, but also solar, hydro, biomass, and wave energy which may offer attractive opportunities for generation and energy saving measures, at the prevailing tariffs. The development of this potential could enable the country to reduce its dependency on the main export products for now, sugar, bananas, fruit juice, and fish products, and reduce the enormous trade deficit the country has been experiencing in the past (exports of USD 452 million against imports of USD 1,211 million, resulting in a negative trade balance of USD 759 million in 2015, of which electricity imports contributed USD 21.6 million)[4].

Recognizing the need to develop the sector, Belize has developed and adopted a series of policy and strategy documents, focussing on energy efficiency measures and the development of renewable energies. The country has taken a strong political commitment towards a "green" development path that harnesses indigenous renewable energy resources and maximizes energy efficiency, while minimizing environmental impacts and boosting employment potential in this new sector. By 2030, it intends to become a net exporter of electricity, and to generate 98% of its own electricity needs on the basis of renewable energies. However, the roadmap to reach this target is not yet totally sketched out through practical and feasible projects and actions. Of note however, BEL is presently conducting an IRP (CPP) financed by CCI and a least cost generation plan financed by OLADE and such studies define clearly the roadmap to achieve the 2030 goal.

The proposed action which is addressing these issues is directly relevant to Focal Area 1 of the 11th EDF National Indicative Programme 2014-2020, which focuses on Sustainable Energy. Consistent with the NIP, the action recognises the vulnerability of the country to external shocks. By supporting the implementation of the Belize Sustainable Energy Roadmap, it will be possible to increase and improve access to modern, affordable and sustainable energy services for the whole population in the country, triggering widespread benefits including for the poor in rural areas.

2 RISKS AND ASSUMPTIONS

Risks	Risk level (H/M/L)	Mitigating measures
Low capacity to address the renewable energy and energy efficiency sector	M	Support technical capacity among players in the renewable energy sector, including project developers, financiers, engineers and technicians, policymakers, planners and tertiary level institutions. Strive for complementarity with other donor-supported projects and national initiatives to provide for a reasonable improvement of capacities
Growing vulnerability to natural hazards such as hurricanes, floods and droughts and their implication on investment levels.	M	Support policies, research and projects that focus on climate resilient solutions, and contribute to climate change adaptation and mitigation. Strive for complementarity with other

[4] http://atlas.media.mit.edu/en/profile/country/blz/ ; accessed 04. Sept. 2017

		donor-supported projects and national initiatives to provide for a reasonable improvement of capacities
Assumptions		
A stable political and financial climate in the country is needed to promote sustainable energy and secure investments. Belize will concentrate efforts and allocate relevant resources to acelerate sustainable energy policies adoption and will steer their implementation.		
Regionally, adapt a harmonized energy standards and labels (ESLs) for household appliances [Lighting, Fans, Refrigerators and A/C's], machinery, and buildings, with mandatory minimum standards, are introduced through a Statutory Instrument.		

3 LESSONS LEARNT AND COMPLEMENTARITY

3.1 Lessons learnt

With a small population in comparison to its land area, Belize experiences challenges with the quality and distribution of senior government staff in particular related to project management. UN agencies are present in Belize (UNDP, UNICEF, PAHO, and UNFPA), however the implementation of projects through these agencies also showcased their issues of limited core staff and promoting local ownership of projects. National and international civil society organizations and private sector entities operating in the country are also few and with limited management expertise.

Lessons learnt from ongoing and past EU funded interventions in Belize (EDF, AMS, and BAM) indicate that the choice of appropriate aid modalities is important for improved aid effectiveness and local ownership.

The Swiss Government, through its REPIC Platform, has provided a 50% grant for the implementation of a solar powered mini-grid in La Gracia, which is to serve as a pilot project and proof of concept for the further electrification of off-grid areas in the country. The Belize Government also supported the Project financially, and the UK provided some additional funds for the last meter connections into the households. Belize Electricity Limited (BEL) is committed to develop and construct micro-grid solutions, where grid extension is less viable, as a pathway to universal access. BEL is also committed to partner with the government to seek funding for these solutions.

3.2 Complementarity, synergy and donor coordination

As outlined above, it is in particular the Inter-American Development Bank (IDB) which provides services to Belize which are in complementarity to the proposed action. In addition to this, other international organisations have also been supporting the renewable energy and energy efficiency sub-sectors. These include 5Cs, UNDP/UNIDO, and OLADE, the Latin American Energy Organisation, and GIZ. In addition, Canada, and the World Watch Institute provided support, mainly for the formulation of certain specialised studies. Currently, it is the Clinton Foundation and the Rocky Mountain Institute which are supporting Belize by making available specialised expertise for studies.

Within the framework of its regional Programme REETA, the German GiZ has been involved in a number of support measures that also benefitted Belize in the past. With EU funding under the TAPSEC Programme, this support is now continuing and will be providing services to Belize, although under a regional perspective. Close coordination with this programme will be required, in order to achieve the maximum benefit for the country.

But apart from some small and isolated projects and these above mentioned regional programmes, the Commission is at present the only active EU donor in Belize, maintaining a relatively low profile local office. With view to the limited presence of international cooperation agencies, there is only a low level of donor coordination. The responsible EU Delegation in Jamaica increased over the past two years its presence and interaction with the multilateral donors and international organisations active in the country, mainly through regular missions.

4 DESCRIPTION OF THE ACTION

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

In line with the above outlined policies, the **overall objective** of the Action is aligned with the Vision Statement of the Sustainable Energy Roadmap[5] as proposed for the consideration of the Energy Council:

> **"Universal access to electricity from a clean and productive energy sector in Belize".**

The proposed action will contribute to this overall objective by assisting all stakeholders to act for moving the country in this direction. Consequently, the **specific objective** is phrased as follows:

> **"Enhanced energy efficiency and access to electricity for unserved areas in partnership with private sector providers".**

The above statement covers all five Strategic Focus Areas presented in the Sustainable Energy Programme – Strategy and Work Plan 2015–2020: 1) energy efficiency, 2) generation of renewable energy, 3) clean energy production, 4) infrastructure for universal access to electricity, and 5) enhanced governance and capacity in the sector.

In order to achieve these objectives, the Project will produce the following **results:**

1. Improved energy infrastructure for unserved villages and households on behalf of the Government and BEL.
2. The capacities and awareness of energy efficiency measures by public and private actors is enhanced.
3. The strategic energy planning process, including improvements in sector governance, regulatory framework, data analysis, and capacity building is strengthened.

[5] Belize becomes a net energy exporting nation with a thriving clean and productive energy sector that helps create opportunities for improving Belizean's lives in an inclusive and equitable manner and where its entire people have access to modern, affordable, and sustainable energy services to achieve sustainable development - Belize Sustainable Energy Roadmap, p. 11f

It is to be noted that these results can realistically be achieved with the EU financial and technical assistance, taking into consideration the current sector context in Belize. Actual investment decisions and change in behaviour by target groups and other stakeholders such as the private sector, or individual households, are stimulated by these services, and are captured as Project impacts at the level of the higher objectives outlined above.

The main activities are presented in general terms and can be grouped as follows:

Result 1 - Electricity is provided to the unserved villages and households on behalf of the Government/BEL.

1.1 Conclude a direct grant contract between the EU and BEL under which:
1.2 Identify the communities and the households for receiving mini-grid or individual renewable energy systems, in coordination with technical assistance services and by using GIS surveys and developing economic assessment tools.
1.3 Complete engineering and construction designs for micro-grid and individual solutions, inclusive of the communication network to remotely operate these networks, and elaborate the tender documents for launching respective works and service contracts. These designs will also indicate how waste management and recycling of batteries, inverters and panels will be handled in an appropriate way.
1.4 Adopt the most appropriate and economic system for operating off-grid networks for a minimum of three years. Parts of the EU resources under this action are direct to fund the selected off-grid systems.
1.5 Procure the goods and services required for the essential components for rural electrification by means of mini-grids and stand-alone systems through an international open supply tender with lots for 2-3MWp of solar panels, li-ion batteries, grid-tie inverters, minor components, and solar street lamps;
1.6 Launch a (local) service tender for the installation, operation and maintenance of mini-grids in 7 villages (with about 1,000 households / customers), including collecting the electricity charges in line with PUC approved tariffs;
1.7 Launch a (local) service tender for the installation, operation and maintenance of stand-alone / solar home systems for up to 2,000 households / customers, including collecting the electricity charges in line with PUC approved tariffs, through suitable regular payment systems such as pre-paid meters for remote topping-up through the mobile phone system or the like;
1.8 BEL to install 200 solar street lights in selected public places, upon selection of locations and installation done in cooperation with the Ministry of Rural Development and the respective village councils;

Result 2 - The adoption of energy efficiency measures by public and private actors is promoted.

2.1 Conclude a PAGoDA contract between the EU and IDB under which:
2.2 Design and implement an Energy and Standards Labelling Programme with a broad based public awareness campaigns through various media channels, covering a wide range of different energy efficiency topics (e.g. lighting, cooling, household appliances, buildings, transport);
2.3 Organise and implement a bulb replacement programme to eliminate incandescent bulbs all over the country, with a limited number of CFL lamps also being replaced for social tariff customers;

2.4 Organise and implement a refrigerator rebate scheme which incentivises the proper disposal of old, inefficient refrigerators, in particular the ones still operating with CFCs as refrigerants, and their replacement with energy efficient new ones;
2.5 Conduct an EE audit and implement recommendations for retrofitting some selected public buildings and services with a high outreach to the public (e.g. court rooms, hospitals, ministries) as demonstration projects for energy efficiency, for example by installing highly energy efficient solar-powered air conditioners, or by demonstrating electric mobility solutions in combination with (bi-directional) solar charging stations.
2.6 Organise / conduct training measures for a) customs officers, b) sales agents for appliances, and c) professionals in the field of energy audits.

Result 3 - The energy unit of the MPSEPU is strengthened for leading the strategic energy planning process, including improvements in sector governance, regulatory framework, data analysis, and capacity building.

3.1 Conclude an international service contract between the EU and a Technical Assistance consultancy under which:
3.2 Support, equip and train the energy unit of the MPSEPU in the development and implementation of an energy sector wide monitoring, evaluation and reporting (MER) mechanism.[6]
3.3 Support BEL with the definition of the off-grid service packages in accordance with the demand profile of the off-grid customers, the elaboration of the tender documents for the procurement of the off-grid hardware (1.2) and the tenders for recruiting service providers (1.3 and 1.4).
3.4 Carry out capacity building in designing renewable systems and energy planning for tertiary level institutions in Belize.
3.5 Make an inventory of, and cover at (pre-) feasibility level including cost-benefit considerations, three (3) main potential sources for generating additional renewable energy in Belize, in particular for on-grid connection.
3.6 Elaborate a strategy to reduce the energy use in the country, including for transport purposes.
3.7 Cooperate with, and provide support to, data collection and analytical capacities in respect of mapping renewable energy resources, complementarity in generation, and use.
3.8 Advise Government on introducing and refining a conducive legal and institutional arrangement ("Energy Act") for an enabling regulatory environment in the energy sector.[7]
3.9 Identify suitable intervention areas for complementary actions through Civil Society Organisations or Non State Actors, prepare a Call for Proposals under EU modalities and follow up on the awarded grants under result orientated monitoring methodology.

The Project will also take care of all relevant cross-cutting issues. It will in particular ensure that women will be encouraged to participate in all activities and at all levels, and will

[6] This MER Mechanism will be elaborated (i) based on the logframe indicators proposed in Annex 1, with refined key performance indicators including reference sheets, data quality and data assurance mechanisms, as well as timely reporting that will allow to measure progress, define the need for changes in the project implementation and adjustments of the LogFrame, (ii) will cover a verification that rural access targets are met, and that the private service providers deliver on their contracts to the satisfaction of the consumers and the Government of Belize, and (iii) will also expand to other areas not included in the proposed main activities of this AD, like cooking (residential and commercial), and other productive activities using process heat, as well as the transport sector.

[7] One of the key features of the Energy Act and other enabling legislation is to create an Energy Secretariat that has legal standing and financing certainty to design/implement multi-year programmes.

demonstrate target achievement in this respect by systematically monitoring all indicators in gender-disaggregated form.

4.2 Intervention logic

In comparison to its neighbouring countries and the Caribbean countries in general, Belize has already made considerable progress in generating electricity from renewable energy sources. However, barriers still exist with respect to the broad-based acceptance of sustainable energy solutions in the country, in line with the ambitions of the Roadmap. These barriers are in particular affecting the pace and scale of actual implementation. Action is needed in areas such as capacity building, regulatory framework and governance structures, broad-based efforts to harness the potential of energy efficiency measures, and new business models for achieving universal access to electricity.

The main intervention of the project will provide solar energy mini grids and stand-alone systems for rural communities and individual households in Belize which are not yet connected to the national electricity land grid. It is expected that the initial mapping will cover all currently unserved communities for posterior priorizing and sequencing of the investment. Special attention will be given to the southern part of the country where the extension of the national grid is still deficient due to the remoteness and low population of this region. These systems will also provide solar powered streetlamps in order to improve livelihood and increase security in rural communities. It is assumed the design of the new systems and works will be approved by both the local and the public authorities. Output 1 of the project will therefore contribute to a clean and green energy infrastructure of Belize and it is projected that 98% of the population will have access to reliable and affordable electricity at the end of the project.

The second component is focussing on the improvement of energy efficiency in Belize. On the one hand, the regulatory framework for energy labelling of household appliances will be presented for adoption by the Government and officials and participants from the private sector will be trained on the new standards and control systems. These courses need to be regularly updated and repeated in order to permit the participants to perform their new skills in their different functions. On the other hand, awareness on energy use of the wider population will be raised by retrofitting selected public building with energy efficient and solar energy appliances as well as a campaign to replace incandescent bulbs. It is assumed that the selected entities will be enabled to operate and maintain the new equipment. In addition, a refrigerator rebate system will be offered in order to replace the outdated and energy intense appliances in private households. A low credit scheme and other incentives will have to be proposed to the population in order to generate the expected impact of the rebate system. These outputs will increase institutional capacities and also raise public awareness on energy conscientious consumption.

The third mayor element of the present intervention is directed to consolidate the overall sector governance through increased data analysis, strategic planning and regulatory measures. For this purpose, the government will have to follow up closely the already formulated objectives and strategies contained in Belize' Sustainable Energy Roadmap, in addition to increasing the institutional capacities of the energy unit of the Ministry of Public Services. The Energy Act will probably need to be updated in order to provide incentives for private electricity investments through attractive feed-in tariffs. New projects for renewable

energy production will be developed to pre-feasibility level outlining the country's potential on renewable energy production for potential future export to neighbouring countries.

The complementarity of and synergies among the above listed outputs will enhance the specific objective of the Project: Country wide access to electricity as well as efficient use of energy in Belize. Approximately 10.000 rural inhabitants will benefit from the social and economic prospects of energy supply as well as around 32 remote communities from solar powered streetlamps. It is however assumed that the selected communities will be enabled to operate and maintain their new systems, possibly through new business models appropriate for rural communities. The pre-feasibility studies will explore further Belize' potential of renewable energy production, supposed that public measures will create incentives for private partners to mobilise the funds for sector investments.

4.3 Mainstreaming

Crosscutting issues include in particular climate change adaptation and mitigation measures, social and gender impacts.

- The proposed Action is directly relevant for reducing the pace of climate change, by reducing the share of fossil fuel in the energy mix. To a less direct degree, the Action is also relevant for adaptation. This is because the Action demonstrates Belize´s seriousness in contributing its share to the global efforts in containing the problem, reducing its energy consumption while promoting a shift away from burning fossil fuels. With this, Belize gains credibility and thereby possibly additional international support for the general adaptation and mitigation measures the country needs to implement as soon as possible.
- The social relevance of the Action is in particularly addressed through the measures with respect to rural electrification, targeting the poorest sections of the Belizean society. Even the planned measures in the field of energy efficiency will also be targeted in particular to households under the so-called social tariff. Both major components, rural electrification as well as energy efficiency are highly gender relevant. Women are suffering most under the energy poverty in off-grid areas, as they are more often at home, responsible for household chores even after dark. Most energy efficiency measures aiming at behavioural change at household level will also have to address women in particular, in order to be adopted. Also Result 3 will put a special emphasis on gender-balanced participation, and the consideration of gender aspects in general, in all measures

4. 4 Contribution to SDGs

This Project is relevant for the Agenda 2030. It contributes primarily to the progressive achievement of SDG target(s) to “Ensure access to affordable, reliable, sustainable and modern energy for all” (SDG 7), but also promotes progress towards the goals “3. Achieve gender equality and empower all women and girls”. It also promotes progress towards “8. Promote sustained, inclusive and sustainable economic growth, full and productive and decent work for all” and “13. Take urgent action to combat climate change and its impacts”. This does not imply a commitment by Belize which is benefitting from this programme.

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 17 of Annex IV to the ACP-EU Partnership Agreement.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4 will be carried out and the corresponding contracts and agreements implemented, is 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 responsible authorising officer by amending this Decision and the relevant contracts and agreements.

5.3 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[8].

5.3.1 Grants: direct award (direct management)

a) Purpose of the grant

The provision of this grant will contribute to achieving Result 1.

b) Justification of a direct grant

Under the responsibility of the Commission's authorising officer responsible, the grant may be awarded without a call for proposals to Belize Electricity Limited (BEL).

Under the responsibility of the Commission's authorizing officer responsible, the recourse to an award of a grant without a call for proposals is justified because the utility company has a legal or factual monopoly, is the primary distributor of electricity in Belize and its national electricity grid connects all major all major municipalities of the country.

5.3.2 Grants (direct management)

a) Purpose of the grant

A call for proposals will be launched to allow the civil society, in particular the indigenous communities, to be informed and/or involved of the activities of the project, mainly the ones related to result 1.

b) Type of applicants targeted

Potential applicants are civil society and non-governmental organisations legally established in Belize, local authorities of Belize and international organisations.

5.3.3 Procurement (direct management)

The procurement of an international Technical Assistance contract to a consulting company for providing advisory services will contribute to achieving result 3.

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

5.3.4 Indirect Management with an international organisation

A part of this action may be implemented in indirect management with the Inter-american Development Bank (IDB). This implementation entails all activities detailed in the Result 2, including amongst others the management of a bulb replacement programme and a refrigerator rebate schemes as well as a series of targeted awareness creation campaigns for further promoting energy efficiency. The envisaged entity has been selected using the following criteria: extensive experience in other countries of the region in successfully implementing this kind of intervention.

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 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

The indicative budget for the Action is as follows:

Key Activities	**Amounts in EUR**			
	EU	**GoB**	**CSO**	**Total EUR**
Result 1 – Direct grant to Belize electricity Limited – cf section 5.3.1	4,500,000	500,000 (BEL contribution)		5,000,000
Result 2 – Indirect management with Inter-American Development Bank – cf section 5.3.4	4,500,000			4,500,000
Result 3 – Procurement (direct management) – cf section 5.3.3	4,000,000	150,000		4,150,000
Complementary actions of Civil Society Organisations – cf section 5.3.2 (Grants - direct management)	515,000		100,000	615,000
Evaluation and Audit – cf sections 5.8 and 5.9	200,000			200,000
Visibility – cf section 5.10	300,000	50,000		350,000
TOTAL	**14,015,000**	**700,000**	**100,000**	**14,815,000**

5.6 Organisational set-up and responsibilities

The action will be implemented under the leadership of the Ministry of The Public Service, Energy and Public Utilities (MPSEPU), in charge of Energy for Belize. The National Authorizing Officer (NAO) will advise the MPSEPU in specific tasks related to procedures, policy development and reporting.

The MPSEPU will establish and chair the necessary coordination mechanisms with both sector stakeholders and implementing partners aiming to achieve the expected results and specific objectives of the Financing Agreement.

It is crucial for the achievement of the results that close and regular coordination mechanisms are established between the implementing partners BEL, IDB, Technical Assistance and the Government of Belize respective public entities and information is shared in a timely and transparent manner in order to facilitate a mutual decision making under the leadership of the MPSEPU.

The CSO grants contracted under the Call for Proposals as well as the evaluation and visibility contracts will be managed by the EU Delegation.

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 the implementing partners´ responsibilities, with guidance and assistance provided through the TA contract under Result 3. To this aim, the implementing partners shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular bi-annual progress reports 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 Log Frame matrix. In order to fulfil the requirements for serving as a basis in this respect, the Log Frame will be refined and updated in particular with respect to meaningful indicators during the Inception Phase. The progress 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.

5.8 Evaluation

Having regard to the nature of the action, an external mid-term and an end-of-project evaluation are foreseen, to be carried out by independent consultants, contracted by the Commission. The mid-term evaluation will mainly serve for learning purposes, in particular with respect to the achievement of expected results of the implementing partners. The ex-post evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision).

The Commission shall inform the implementing partners at least three (3) months in advance of the dates foreseen for the evaluation missions. The implementing partners shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

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

Evaluation services may be contracted under a framework contract.

5.9 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 (1) contract for audit services shall be concluded under a framework contract in 2022.

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 after the Inception Phase, and contracted directly by the Commission with the budget indicated in section 5.5 above.

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

The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

APPENDIX 1 - INDICATIVE LOGFRAME MATRIX (FOR PROJECT MODALITY) [9] (MAX. 2 PAGES)

On the basis of this indicative logframe matrix, a more detailed logframe(s) might be developed at contracting stage linked to this AD. The indicative logframe matrix will evolve during the lifetime of the Intervention. The activities, the expected outputs and related indicators are indicative and may be updated during the implementation of the Intervention as agreed by the parties (the European Commission and the implementing partner/s).

The logframe matrix must be used for monitoring and reporting purposes. At the latest in the first progress report, implementing partner/s should include the complete logframe including all baselines and targets for each indicator). Each progress report should provide the most up to date version of the logframe as agreed by the parties (the European Commission and the implementing partner/s) with current values for each indicator. The final report should enclose the logframe with baseline and final values for each indicator.

Indicators to be presented, when possible, disaggregated by sex, age, urban/rural, disability, any disadvantaged group, income quintile etc.

	Results chain	Indicators	Basel. (2017)	Target (2021)	Sources/means of verification	Assumptions
Overall Objective: Impact (Benefit)	**Universal access to electricity from a clean and productive energy sector in Belize**	OO-1. % of electricity self-sufficiency.	OO-1. 65%	OO1. 80%	MPSEPU statistics; BEL statistics	
		OO-2. % of electricity generated from RE sources in Belize. (*Belize NIP 2014-2020 Annex 3: 1.1) (**EU RF Level 1 #12)	OO-2. 57%	OO2. 60%	MPSEPU statistics; BEL statistics	
		OO-3. % of population of Belize with access to electricity. (*Belize NIP 2014-2020 Annex 3: 1.2) (** EU RF level 1 # 11)	OO-3. 95%	OO3. 98%	MPSEPU statistics; BEL statistics	

[9] Mark indicators aligned with the relevant programming document mark with '*' and indicators aligned to the EU Results Framework with '**'.

Specific objective(s): Outcome (Utilisation)	**Enhanced energy efficiency and access to electricity for unserved areas in partnership with private sector providers**	SO-1. No. of people connected through a) mini-grids, b) stand-alone systems. (*Belize NIP 2014-2020 Annex 3: 1.2) (** EU RF Level 2, #11)	 SO-1a. 0 SO-1b. 0	 1a. 1500 1b. 8500	BEL statistics; MPSEPU	The communities are able to maintain the installed facilities or served by the appropriate rural electricity services
		SO-2. No. of people in the off-grid villages served with solar street lamps .(by sex where possible) (*Belize NIP 2014-2020 Annex 3: 1.2)	SO-2. 0	SO-2. 32 villages	BEL to validate impact of intervention	
		SO-3. Level of Electricity consumption per grid-connected households under the programme (in KWh and %).	SO-3. KWh (%)	SO-3. KWh (20%)	BEL to validate impact of the programme	Private and public power producers can mobilise the required funding for new RE generation projects.
		SO-4. Level of Power consumption of public sector under the programme (in KWh and %). (*Belize NIP 2014-2020 Annex 3: 1.1)	SO-4. KWh (%)	SO-4. KWh (20%)		
		SO-5. Number of RE projects undertaken by the private investors or public-private partnerships among the inventory prepared by the project. (*Belize NIP 2014-2020 Annex 3: 3.2.1)	SO-5. 0	SO-5. 8		Private investors reveal interest in investing or entering into PPPs for RE projects

	Results chain	Indicators	Basel. (2017)	Target (2021)	Sources/means of verification	Assumptions
Outputs (Services provided)	**1. Improved energy infra-structure for unserved villages and households on behalf of the Government and BEL.**	O-1.1 – Renewable electricity generation capacity installed with intervention support.	O-1.1. 0	5 villages	BEL data MPSEPU	The Mapping Report covers all communities that are off the grid.
		O-1.2 No. of solar street lights installed.	O-1.2. 0	O-1.2 200 streetlights	BEL data	The design for systems and works are approved by local and public authorities / BEL for tendering.
		O-1.3. Status of completed engineering and construction design for mini-grids and standalone systems. (*Belize NIP 2014-20 Annex 3: 2.2)	O-1.3. None	O-1.3. 5 completed	MPSEPU and BEL Mapping Report	
	2. The capacities and aware-ness of energy efficiency measures by public and private actors is enhanced.	O-2.1.Status of the Energy and Standards labelling programme. (*Belize NIP 2014-20 Annex 3: 2.1)	O-2.1. None	O2.1. Adopted by the GoB and enacted	Decision on the adoption of Energy and Standards labelling	The Labelling programme is supported for implementation and monitored by the GoB.
		O-2.2 No. of incandescent bulbs replaced.	O-2.2. 0	O2.2. 200,000	IDB M&E System	Low-interest credit for EE measures is made available (e.g. DFC).
		O-2.3 Status of replacement of old refrigerators.	O-2.3. None	O2.3. 12/2020	IDB M&E System	
		O-2.4 No. of public buildings retrofitted as demonstration projects for EE.	O-2.4. 0	O.2.4. 10	IDB M&E System; Acceptance certificates for public buildings	Public entities are enabled to maintain/operate.
		O-2.5 No. of officials and specialists trained in energy appliances standards, disaggregated by sex and type of service:	O-2.5. 0	O-2.5. 50	IDB M&E System	Participants enabled to perform the skills received and realise internal training courses..

		a) customs officers, b) sales agents, c) energy audit professionals trained (*Belize NIP 2014-2020 Annex 3: 3.1.1)		a) 10/50% b) 30/50% c) 10/30%	Training testing results and certificates	
	3. The strategic energy planning process, including improvements in sector governance, regulatory framework, data analysis, and capacity building is strengthened.	O-3.1 No. of concrete RE power projects for which a pre-feasibility study has been completed.	O-3.1. 0	O-3.1. 8	MPSEPU data	Electricity feed-in tariffs in Belize are attractive for private sector.
		O-3.2 Status of the Strategy on EE. (*Belize NIP 2014-2020 Annex 3: 2.1)	O-3.2. None	O-3.2. Developed by 12/2019	MPSEPU data	EE Strategy has a budget and is monitored by the government.
		O-3.3 Status of RE resources map . (*Belize NIP 2014-2020 Annex 3: 2.1)	O-3.3. None	O-3.3. Developed by12/2020	MPSEPU data	RE Resource map is followed up by the government.
		O-3.4 Status of the Energy Act. (*Belize NIP 2014-2020 Annex 3: 2.1)	O-3.4. No revisions	O-3.4. The draft is submitted to the GoB by 12/2020	MPSEPU data	The Energy Act provides for incentives to the independent providers/investor.
		O-3.5. Level of capacity of MPSEPU Energy Unit. (*Belize NIP 2014-2020 Annex 3: 3.1.1)	O-3.5. As per its charter and functions	O-3.5. The Energy Unit has a M&E reporting for the Energy sector		MPSEPU enabled for full surveillance of the energy sector, data system and provides for regular reports.