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SUMMARY

Annual Action Programme 2018 for Sustainable Energy under the Global Public Goods and Challenges Thematic Programme to be financed from the general budget of the Union

1. Identification

Budget heading	21.020702 Sustainable energy
Total cost	EUR 84 955 842 of EU contribution
Basic act	Regulation (EC) N° 233/2014 of the European Parliament and of the Council of 11 March 2014 establishing a financing instrument for development cooperation for the period 2014-2020[1], and in particular Article 7 thereof. Regulation (EU) No 236/2014 of the European Parliament and of the Council of 11 March 2014 laying down common rules and procedures for the implementation of the Union's instruments for external action

2. Thematic background

The Annual Action Programme 2018 sets out measures to implement the strategic area regarding sustainable energy of the Global Public Goods and Challenges (GPGC) thematic programme as set out in Article 7 of the Development Cooperation Instrument (DCI) and detailed in the Multi-annual IndicaFtive Programme for 2014-2020.

With more than 1.3 billion people around the globe without access to electricity and 2.7 without clean cooking facilities, energy poverty is one of the most pressing challenges the developing world is facing. With its Agenda for Change, the EU was one of the first to recognise that insulating developing countries from shocks (such as scarcity of resources and supply and price volatility) helps to provide the foundations for sustainable growth. Inequalities should be tackled by giving poor people better access to energy without harming the environment.

In order to provide universal energy access by 2030 the International Energy Agency estimates that USD 48 billion per year in investment is needed. Therefore for making the best use of limited development funding, it is important to strengthen and leverage actions at a global scale, to promote the creation of an enabling market and regulatory environment that attracts massive private investment in sustainable energy

[1] OJ L 77 of 15 March 2014, p. 44.

services providing simultaneously for the extension of benefits to those categories of energy poor that risk being left behind. It will equally be important to integrate in future energy policies the need to cut greenhouse-gas emissions to a level consistent with the internationally agreed goal to limit the rise in global average temperature to below 2°C above pre-industrial levels.

In 2015, the 2030 United Nations Agenda for Sustainable Development was adopted. It is a universal framework for all countries to help eradicate poverty and achieve sustainable development by 2030. It encompasses an ambitious set of 17 Sustainable Development Goals including access to affordable, reliable, sustainable and modern energy (SDG 7), Sustainable cities (SDG 11) and Gender equality (SDG 5). Sustainable energy is also crucial to the successful implementation of other SDGs under the agenda, in particular SDG 13 on Climate action.

The EU is also one of the partners of the Africa Renewable Energy Initiative (AREI), launched in COP21, an Africa-led initiative whose main objective is to increase the continent's renewable energy generation capacity by at least 10 GW by 2020.

A Staff Working Document (SWD) on 'Empowering Development' was issued in December 2017, delineating how energy cooperation contributes to the implementation of the new European Consensus on Development.

In line with the EU policy priorities, the European Commission has identified two key cooperation initiatives and support measures which shall be financed under the GPGC Annual Action Programme 2018 for Sustainable Energy.

3. Summary of the Action Programme

With this AAP 2018, all the funds remaining available under the 2018 budget for line 21.020702 will be committed.

3.1. Identified action

1. Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth

The first Action entitled "Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth" aims at identifying and stimulating financially sustainable business models of energy micro- and mini-grid investments that employ innovative digital solutions, focus on productive uses of local renewable energy, on delivering electricity, digital and other services contributing to financial inclusion, job creation, sustainable economic growth and mitigation of root factors of irregular migration.

The overall objective of this project is to create sustainable and inclusive economic growth in partner countries, especially among the vulnerable parts of the population and in the least developed states (LDS).

The specific objectives are: (i) increased/improved access to modern, affordable and sustainable energy and to digital services; (ii) increased private sector investments in the 'missing middle' of sustainable energy projects, especially based on micro- and mini-grid business models and employing digital solutions; (iii) increased additional

financing for sustainable energy and digital solutions investments, including from DFIs, micro-financing institutions and crowdfunding platforms; (iv) evidence-based and data-driven policies in sustainable energy adopted and implemented by governments in partner countries.

The method of implementation: The main component of this Action shall be implemented in indirect management under the EU blending framework by entities to be indicated in complementary financing decisions. Direct management could be envisaged in cases where the size of investments is not attractive for DFIs.

Indirect management is foreseen with international organisations; the United Nations Development Programme (UNDP) for the continuation of the Climate Parliament 'Parliamentary Action on Renewable Energy - PARE' and the International Energy Agency (IEA) for the component on evidence-based and data-driven policies information in the sustainable energy sector.

2. Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy

This second action aims to provide high level policy advice and technical assistance aiming at the gradual improvement of the partner countries' capacities in the energy sector, in a way that is fully integrated in pillars II of the External Investment Plan (EIP) and regional blending platforms, and which will also assist to sector governance and improvement of the business environment related to pillar III of the (EIP). This action will from part the sustainable energy component of the EU's "Global Investment Technical Assistance Facility (GITAF)". The action will also assist the management of the "Africa Renewable Energy" (AREI) initiative.

Overall, the Action has the purpose of stressing the global character of the SDG7 objectives and related agreements but needs to be informed and enriched by the actions taking place at country level.

The overall objective of this action is to : Carry out catalytic and targeted actions in order contribute to establishing the necessary conditions for achieving the SDG7 goals in sustainable energy as well to contribute to the SDG13 goals related to climate action in DCI eligible countries with a focus on Africa

The specific objectives are :

i) To improve energy sector governance, planning and regulation
ii) To improve public and private investments and market conditions in the field of energy
iii) To increased knowledge management, dissemination and cross-fertilisation of sustainable energy regulatory, technical and investment practices between stakeholders.
iv) To increase partnerships and coordination between EU partners and global stakeholders towards major sustainable energy initiatives

The Action will be implemented in two components, the first being a directly management technical assistance component for a Technical Assistance Facility for sustainable energy. The Action will in parallel use indirect management to fund the newly established Global Energy Transformation Programme (GET.pro) managed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and expected to be co-funded by Germany, and other Member States. The Technical

Assistance to the "Africa Renewable Energy initiative" AREI will also be included in the component to be managed by GIZ also in cofounded by Germany and France.

3. Sustainable Energy Support measures 2018

This Action contributes to the sound management, the achievement of the objectives and specific results as well as to the measurement, analysis and reporting on the impact of the sustainable energy component of the Global Public Goods and Challenges (GPGC) Thematic Programme 2014-2020.

In accordance with Article 3 of Regulation (EU) No 236/2014 of the European Parliament and of the Council of 11 March 2014 laying down common rules and procedures for the implementation of the Union's instruments for financing external action, the Support Measures will be used to finance, among others, activities such as i) risk-based audits, monitoring and evaluations of projects and calls, ii) technical support for the identification and formulation of new actions, iii) studies and advisory services, organisation of and support for participation in trainings, seminars, conferences, workshops, meetings as well as production of related publications, and iv) technical support for the overall monitoring, evaluation and impact assessment of the programme.

For the coming years, the support measures will enhance activities related to the implementation of the main components of sustainable energy programming: (1) delivering access to energy, (2) Covenant of Mayors in Sub-Saharan Africa (3) global partnerships and (4) gender and energy.

3.2. Past EU assistance and lessons learnt

The Global Public Goods and Challenges programme is now in its fourth year of implementation, and global energy challenges have been tackled also under the previous DCI instrument via the thematic programme for environment and sustainable management of natural resources, including energy (ENRTP).

The actions undertaken so far under GPGC, mainly the Covenant of Mayors in Sub-Saharan Africa and Delivering access to affordable and Women & Sustainable Energy initiative, reliable, sustainable and modern energy have proven to be successful.

Lessons learnt for "Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth"

When considering the value-added of employing digital solutions in energy projects, the Commission has already supported in the framework of the Energy Facility and ElectriFI business models involving mobile applications to sell and buy electricity, projects linking telecom towers with sustainable electricity generation or consumption in remote rural communities, showing that such business models can successfully improve the performance of the energy systems or ensure a stable load.

Past experience has also shown that a more enhanced focus on the end use of energy and the promotion of productive uses of energy in other sectors is needed in order to exploit the potential for energy to become an enabling factor for other sectors and a means to meet many ends.

According to findings from the work carried out under the "Women in Sustainable Energy" initiative and previous studies, access to finance and the prices of sustainable energy equipment/products are both key barriers at the core of women engagement in the energy sector. Often women do not have any bank account, the interest rates are too high and the products too expensive etc. Mechanisms need to be in place to provide for affordable access of women to finance and to entrepreneurship opportunities in the energy sector, as well as adequate and adapted vocational trainings and awareness raising tools to the different levels of entrepreneurs and sustainable users to address the potential lack of technical knowledge and awareness of sustainable energy solutions.

Lessons learnt for "Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy"

During the last years and especially after the recognition of the energy sector as a priority for developing countries, several activities and programmes similar to those proposed in this action have been implemented by the EU.

The EU's Technical Assistance Facility for the SE4ALL initiative was approved as an Action document in 2012. A total of 3 contracts were signed, two of them concerning Africa in 2013 and one in 2014 concerning Asia, the Eastern and Southern Neighbourhood, Latin America, Caribbean and Pacific. The 4 year long experience and feedback have overall been very positive and these contracts become a key motor of development of important energy actions in both governance, regulatory, institutional issues but also in project identification and preparation.

The Global Energy Transformation Programme (GET.pro) initiative that is proposed to be funded under this action is building on the strong track record of the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF). The current goal is to act as an effective delivery platform linking EU actors for international energy and climate goals for the implementation of European flagship initiatives in the energy and climate sector and provide visibility to joint actions of both the European Union and its member states. Following the experiences in the existing action under EUEI PDF a new governance structure has been set up. The new programme will also aim at unlocking more EU member state expertise and participation since in the current programme only Germany, France, Austria, The Netherlands, Italy and Finland were active.

One of the lessons learned in terms of achieving both relevance and effectiveness is to fully involve EU Delegations in the conception, design and the management of the different actions while ensuring, in parallel, cross-fertilisation of knowledge and practices. Technical assistance actions in countries should go hand in hand with policy dialogue led by the EU Delegations and the EU Member states present as well other development partners. It is important to ensure that these actions largely benefit from the knowledge and information produced from the Action in other countries.

For the above reason and for the reason of coherence with the EIP pillars II and III it has been decided to launch the EU's Global Investment Technical Assistance Facility (GITAF) that will concern all economic sectors and will result I more than 1 billion EUR of funding. The current Action will therefore be labelled as "GITAF for sustainable energy".

Lessons learnt for "the sustainable energy support measures 2018"

The GPGC is now in its fifth year of implementation, whilst its 'predecessor' covering sustainable energy cooperation, namely the 'Environment and sustainable management of Natural Resources, including Energy, Thematic Programme (ENRTP)' ran for seven years, 2007-2013. Throughout this period, several AAP's included support measures resulting in studies, audits, evaluations, trainings, etc. that in turn facilitated assessing individual actions and supported the introduction of improvements in the implementation of the programme. Lessons learnt from past and current interventions were reflected in the design of the new multi-annual indicative programme under the GPGC.

3.3. Complementary actions/donor coordination

The policy advice technical assistance and capacity building action, will play a leading role in ensuring project and donor coordination initially between EU member states and secondly between the wider donor community active in the energy sector. The Action will assist the diffusion of information between active partners in high level dialogue but also at country level, thus avoiding information gaps. It will promote synergies in many ways, such as between financiers and project promoters between national, regional and global priorities but especially by strengthening the links between the private sector in each country and the different public entities.

The Actions will avoid duplications of existing activities and seek complementarity with other EU programmes and financing instruments relevant for sustainable energy. Actions proposed under GPGC are also complementary with geographical programmes at both country and regional level.

4. Communication and visibility

Communication and visibility measures should be based on specific Communication and Visibility Plans of each action, and will be elaborated before the start of implementation by the relevant implementing partners. 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.

5. Cost and financing

Proposed 2018 Annual Action Programme

Annex	Action's Title	EU contribution (in EUR)	CRIS Nr.
1.	Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and	26 500 000	DEC 2018/41-119

	growth		
2.	Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy	58 000 000	DEC 2018/41-039
3.	Sustainable Energy Support measures	455 842	DEC 2018/41-118
Total (in EUR)		**84 955 842**	

Increases or decreases of up to EUR 10 million not exceeding 20 % of the contribution, or cumulated changes to the allocations of specific actions not exceeding 20 % of that contribution, as well as extensions of the implementation period shall not be considered substantial within the meaning of Article 94(4) RAP.

The Committee is invited to give its opinion on the attached Annual Action Programme 2018 for Sustainable Energy under the Global Public Goods and Challenges Thematic Programme to be financed from the general budget of the European Union.

ANNEX 1

of the Commission Implementing Decision on the Annual Action Programme 2018 for Sustainable Energy under the Global Public Goods and Challenges (GPGC) thematic programme, to be financed from the general budget of the Union

Action Document on identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth

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

1. Title/basic act/ CRIS number	Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth CRIS number: ENERGY 2018/041-119 financed under Development Cooperation Instrument (DCI)
2. Zone benefiting from the action/location	Global The Action shall be carried out in all regions/countries eligible under DCI but will specifically, though not exclusively, prioritise energy investments in Sub Saharan Africa, with a particular focus on the Sahel region and fragile states. Moreover, a particular focus will also be put on Small Island Developing States (SIDS), which are currently underserved in terms of support received under investment facilities. Partner countries in other regions, such as Asia and Latin America are not excluded.
3. Programming document	"Commission Implementing Decision of 23.7.2014 adopting a Multiannual Indicative Programme for the Thematic Programme "Global Public Goods and Challenges" for the period 2014-2020" C(2014) 5072 final
4. SDGs	**Main SDGs** **SDG 7**: Ensure access to affordable, reliable, sustainable and modern energy for all **Secondary SDGs** **SDG 13**: Take urgent action to combat climate change and its impacts

	SDG 5: Achieve gender equality and empower all women and girls **SDG 8**: Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all **SDG 9**: Industry, innovation, infrastructure **SDG 3**: Ensure healthy lives and promote well-being for all at all ages	
5. Sector of intervention/ thematic area	Sustainable energy/Increasing or improving access to affordable, sustainable reliable and modern energy	DEV. Assistance: YES
6. Amounts concerned	Total estimated cost: the EUR 26.5 million EU contribution is expected to leverage additional contributions (amount tbc) Total amount of EU budget contribution: EUR 26.5 million (from the general budget of the European Union for 2018). This Action will be co-financed by entities participating under the EU blending framework as well as by the beneficiaries and will be leveraged by private sector contributions (leverage tbc). Possibly, additional NIP/RIP credits will be executed under the leadership of the respective Delegations/geo services.. The Action has a global focus and there is no ex-ante geographic allocation of the funds, but an ongoing EU Technical Assistance Facility (TAF) assignment will identify ways of intervention in priority countries, namely in the Sahel region, fragile states and SIDS (through the assessment of the regulatory framework and the market conditions and through field trips organised with the close cooperation of the EUDs).	
7. Aid modality(ies) and implementation modality(ies)	Project Modality: a combination of management modes • The main part of this Action (pilot projects development and investments) shall be implemented ideally by indirect management under the blending framework (thematic blending) by entities to be indicated in complementary financing decisions; The draft allocation is of approximately EUR 21.5 million. In cases where the size of investments is not attractive for development finance institutions (DFIs) (in particular for delivering benefits to the most vulnerable population groups, women and youth), especially in countries with challenging market environments, such as those from the Sahel region and fragile states, direct management options could be considered. • Another part (capacity building, awareness raising) will be implemented by indirect management with: - the United Nations Development Programme (UNDP) for a contribution of approximately EUR 2 million earmarked for the 'Parliamentary Action on Renewable Energy' (PARE) initiative and	

	- the Organisation for Economic Co-Operation and Development (OECD) (through the International Energy Agency (IEA)) for a contribution of approximately EUR 3 million.			
8 a) DAC code(s)	23110 Energy policy and administrative management[1]			
b) Main Delivery Channel	47 000 Other multilateral institution (Micro-finance institutions, crowdfunding platforms and European Development Financial Institutions)			
9. Markers (from CRIS DAC form)	**General policy objective**	**Not targeted**	**Significant objective**	**Principal objective**
	Participation development/good governance	☐	☑	☐
	Aid to environment	☐	☐	☑
	Gender equality and Women's and Girl's Empowerment	☐	☑	☐
	Trade Development	☑	☐	☐
	Reproductive, Maternal, New born and child health	☑	☐	☐
	RIO Convention markers	**Not targeted**	**Significant objective**	**Principal objective**
	Biological diversity	☑	☐	☐
	Combat desertification	☑	☐	☐
	Climate change mitigation	☐	☐	☑
	Climate change adaptation	☑	☐	☐
10. Global Public Goods and Challenges (GPGC) thematic flagships	GPGC Sustainable Energy			

[1] And related DAC codes 23181, 23182, 23183, 23210, 23220, 23230, 23240, 23250, 23260, 23270, 23410, 23620, 23630.

SUMMARY

The Action aims at identifying and stimulating financially sustainable business models of energy micro- and mini-grid investments that focus on productive uses of renewable energy, on delivering electricity, digital and other services contributing to financial inclusion, job creation, sustainable economic growth and mitigation of root factors of irregular migration.

The Action will explore different business models that aim at reducing the cost of services to the end user, such as providing them in a bundle: electricity along with internet connectivity and other services, such as water-pumping and water-purification solutions, common refrigeration solutions for agro-businesses etc. Moreover, business models based on digital-enabled mini-grids combining a number of digital-energy nexus solutions (drones, artificial intelligence software and algorithms, internet of things[2], smart meters, web servers and mobile phone applications, big data cloud computing, online marketplaces etc.) will be identified and supported. Moreover, the synergies between energy and health will be exploited, with an aim to enable access to essential health services, reduce health inequalities worldwide and contributing to prevent deaths or significant health problems due to indoor air pollution through clean cooking solutions or more broadly, through clean energy solutions. Digital technologies, such as PAYG for purchasing cleaner-burning fuels, will be considered in order to enable more efficient and affordable solutions.

The Action will contribute to meeting the pledge of the ex-President Barroso, for the EU to assist developing countries in providing energy access for 500 million people by 2030. The Action is expected to unlock and promote promising energy access business models based on digital technologies. While these business models are applicable in various contexts, they will focus on remote and rural areas. Through investments in micro- and mini-grids, the Action aims to address the 'missing middle' in sustainable energy investments, namely the area between, on the one hand, large-scale investments in generation and transmission/distribution covered under regional blending and, on the other hand, independent household systems such as Solar Home Systems, that are already achieving a high level of penetration in local markets.

The Action will consist of two main work streams:

1. Project development and investments: The main component of this Action will aim at boosting a pipeline of investment projects and supporting projects delivering access to affordable, reliable, sustainable, modern energy and digital services through digital-enable micro- and mini-grids, in particular in those countries where the private sector participation in sustainable energy investments is low.

2. Capacity building and awareness raising: Additionally, in order to maintain and capitalise on the momentum of the (pilot) projects, particular focus will be given to supporting awareness raising and capacity building activities to be carried out under smaller actions: one in partnership with the UNDP/Climate Parliament on the 'Parliamentary Action on Renewable Energy - PARE' initiative and another with the OECD/IEA (Organisation for Economic Co-

[2] The Internet of Things (IoT) is the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these objects to connect and exchange data. IoT can be used as the platform to design and deploy the monitoring and control systems for energy systems in general and off-grid systems in particular.

Operation and Development/International Energy Agency) which will target interventions informing policy / decision makers and energy related authorities and stakeholders of the merits of the respective business models, increasing support for evidence-based and data-driven policies in the energy sector.

While the Action has a global coverage, it is believed that Sub-Saharan countries and especially the Sahel region and fragile states, currently underserved in terms of support received from investment facilities, will especially benefit from this Action due to the acute energy access challenge and the digital divide that characterises them and can, thus, create tangible business opportunities.

To this end, the establishment of a mechanism / revolving fund offering contingent debt / reimbursable grant type of support is being explored. This would target: the pre-financing of connection costs (focusing on off-grid/ mini grid connections in poor rural areas), access to early financing to those to be connected to mini-grids for appliances linked to basic life line services and productive uses, and the application of affordable (social) tariffs for a minimum life line consumption for households and social infrastructure (including health facilities). On the other hand, countries that currently show particular interest in emerging technologies in the energy-digital sector will also be targeted and synergies sought with EU technology providers.

Through a strong gender focus, the Action also aims at enhancing women (and girls) status and their role in promoting sustainable energy and as benefiting from it. The Action will stimulate activities in sustainable energy in developing countries, including catalysing the involvement of women in the sustainable energy value chains, boosting their role in the sector as actors and improving their lives as beneficiaries.

1 CONTEXT ANALYSIS

1.1 Context Description

Universal energy access by 2030 is one of the main driving forces in alleviating poverty and ensuring a sustainable and inclusive economic growth. However, worldwide, about 1.2 billion people have no access to electricity, mainly in rural areas, whilst up to a billion more have access only to unreliable electricity networks. Based on recent trends and policies, the number of people without electricity access is expected to remain over 670 million in 2030, with over 80% of those lacking access concentrated in rural areas of sub-Saharan Africa, where the average electrification rate is less than 25%.

Meanwhile, Small Island Developing States (SIDS) are increasingly exposed to vulnerabilities due to climate change and they face an urgent need to focus on renewable energy deployment and infrastructure resilience to shift to sustainable and affordable energy and to grant energy access to rural communities.

The access to energy challenge takes a toll on the quality of livelihoods of the population and health effects are among the most damaging consequences. Some four million deaths a year are attributed to household air pollution generated from a lack of clean and modern energy for cooking alone. These estimates fail to account for the health and safety risks posed by heating, lighting and supplementary cooking practices. Women and children bear the largest share of

the health risk and burdens associated with the reliance on polluting and inefficient energy systems, including in terms of time loss collecting fuel.

In a context where conventional energy sources have a significant impact on climate, the European Commission has focused its efforts on three big bets for empowering development: increasing partner countries' access to affordable, reliable, sustainable and modern energy; increasing renewable energy generation; and contributing to the fight against climate change. Electrification - which remains as the main promise for tackling the access challenge, has seen an important progress over the past years, especially in Asia and in some countries in sub-Saharan Africa. The fast uptake of renewable energy, its continuously declining costs, as well as the huge potential that some partner countries have in terms of renewable generation have played an essential role in improving rates of energy access.

In certain situations, such as, low population density, regulatory and institutional hurdles or high investment costs and when costs may not be recoverable by utilities, grid extension is no longer the most suitable solution. Therefore, decentralised options emerge as a cost-efficient alternative to on-grid electrification in order to deliver energy access. In this context and to achieve the universal energy access goal by 2030, it is estimated that decentralised options are the least-cost option for 60% of people currently lacking access. In regions with no or unreliable electricity supply, these solutions can provide energy not only to residential consumers but also for productive uses, contributing among others, to job creation and empowerment of women. Decentralised installations can power industrial and commercial sites in remote areas or in areas with low quality of electricity supply, while - depending on the context - remaining the immediate solution to communities that the grid cannot reach or offering the possibility to work in tandem with the traditional large-scale grid. The range of available solutions spans from stand-alone PV systems to mini-grids utilising a variety of renewable energy sources with different levels of availability and storage technologies, which, in combination with efficient use of energy, can meet energy needs. Moreover, mini-grids and autonomous power systems can scale-up and respond to growing electricity demand as the purchasing power of local population grows.

Furthermore, digital progress is acknowledged to be transforming our societies and economies to the core. In this context, energy and digitalisation can act together as accelerators and enablers of many, perhaps all of the SDGs. In a new era of energy transition and digital transformation, technological advances have the potential in boosting results of the work in the energy sector, offering options which are increasingly enhancing the technical and financial viability of projects. Digitalisation and energy efficiency measures along the energy supply chain help in building energy systems which are now more intelligent, efficient, sustainable, reliable and cost-effective. Thus, the idea of a nexus between digital solutions and the energy sector emerges.

And as partner countries have already shown a capability of leapfrogging in several domains, their level of readiness in up taking the latest digital innovations is also promising. By enhancing decentralised systems with digital solutions, such as Pay-As-You-Go (PAYG) mobile payment solutions, the value-added is that this creates opportunities to also target the most vulnerable or isolated parts of the population to increase access to energy while ensuring affordability of consumed energy, financial inclusion by enabling access to financial services even to that part of the population that does not own a bank account. Moreover, technologies like smart grids and innovative solutions like distributed ledger technology are rapidly spreading globally, putting ever more control in the hands of individual producers and

consumers. This is an area where the EU industry is developing products and solutions that excel in standards and quality.

However, investments in the field of energy in developing countries, and especially in the area of micro- and mini-grids, currently confront inter alia, high political, technology, market and currency risks. This largely explains the reluctance of commercial banks to provide suitable lending conditions and in the cases of smaller-investments, even that of development financing institutions. On the other hand, stakeholders in the developing world (developers, investors and local financiers), demonstrate capacity limitations in terms of structuring and bringing projects to financial close and financing projects in the energy sector, respectively. Therefore, one of the aims of this Action is to focus efforts on addressing these challenges.

1.2 **Policy Framework (Global, EU)**

This Action supports the EU priorities on sustainable energy and climate change, sustainable investments, jobs and growth.

More specifically, several major international initiatives, policy decisions and communications are related to this Action including, starting from the most recent:

(i) the Commission Staff Working Document on the "Implementation of the new European Consensus on Development in energy cooperation"
(ii) "Tallinn Declaration on eGovernment" at the ministerial meeting during Estonian Presidency of the Council of the EU on 6 October 2017
(iii) "The new European Consensus on development 'Our world, our dignity, our future'";
(iv) the Joint Communication to the European Parliament and the Council for a renewed impetus of the Africa-EU Partnership;
(v) the Commission Staff Working Document "Digital4Development: mainstreaming digital technologies and services into EU Development Policy"
(vi) the Council Conclusions for "Implementing the EU Global Strategy – strengthening synergies between EU climate and energy diplomacies and elements for priorities for 2017";
(vii) the European Parliament resolution on access to energy in developing countries;
(viii) the Council Conclusions on energy and development;
(ix) the "Paris Agreement" and the related "Nationally Determined Contributions" (NDCs) along with other initiatives launched at COP21 and as confirmed at COP 22 and COP 23, including AREI;
(x) "Transforming our world: the 2030 Agenda for Sustainable Development";
(xi) "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy";
(xii) "A Stronger Role of the Private Sector in Achieving Inclusive and Sustainable Growth in Developing Countries";
(xiii) "Sustainable Energy for All (SE4All), A Global Action Agenda, Pathways for Concerted Action towards Sustainable Energy for All ";
(xiv) "Increasing the impact of EU Development Policy: an Agenda for Change".
(xv) "Commission Communication on Accelerating Clean Energy Innovation".

1.3 **Public Policy Analysis of the partner country/region**

The ongoing EU Technical Assistance Facility (TAF) assignment will identify ways of intervention in priority countries, namely in the Sahel region, fragile states and SIDS and will ensure that the projects to be supported are in line with the energy sector needs of the respective countries and with the priorities set under their energy strategies.

1.4 **Stakeholder analysis**

The main stakeholders of the Action are:

- The final beneficiaries (households, productive users and social infrastructure) to which the access to energy and digital services will make a huge difference in terms of growth and poverty reduction.
- Private stakeholders including companies and financing institutions, including micro-finance institutions and crowdfunding platforms (EU, local or other); financial intermediaries and associations active in the energy cooperation development field, the energy-digital nexus and interlinked sectors (water, agriculture, health, education etc.) both as a source of finance and as partners for governments in partner countries, operators and donors.
- All Finance Institutions eligible under the EU blending framework (both multilateral and national European development finance institutions), either directly or indirectly through their central, regional and local administrations.
- Local private sector and local communities and authorities, public service bodies;
- EU Delegations and the relevant Commission services active in this area (e.g.: Directorates-General for: Energy; Research and Innovation; Communications Networks, Content and Technology etc.).
- Civil Society Organisations (CSOs)/non-governmental organisations (NGOs), associations, cooperatives, including those active in the area of gender equality and empowerment of women.

In the context where this Action falls within a wider initiative in the sustainable energy cooperation area in blending credits and mobilising the private sector, the concerned stakeholders have been widely consulted to confirm evidence of their interest. Moreover, specific consultations and workshops have been organised as part of the EU TAF-led preparatory phase to collect stakeholders' feedback on the proposed Action, allow them to share their experiences, lessons learned and needs in order to scale-up and replicate their activities in more partner countries, as well as to identify opportunities for collaboration, especially in terms of tailor-made solutions, depending on the location of deployment.

1.5 **Problem analysis/priority areas for support**

In terms of sustainable energy investments in partner countries, large-scale projects in generation and transmission/distribution are already being covered under regional blending. On the other hand, independent household systems such as Solar Home Systems, are already achieving a high level of penetration in local markets. Therefore, this Action aims to address the 'missing middle' between these two areas, and therefore focuses on identifying and stimulating financially sustainable business models of energy micro- and mini-grid investments that would deliver sustainable energy access.

As technological advances prove to have a potential in boosting results of the work in the energy sector, offering options which are increasingly enhancing the technical and financial viability of projects, the Action will exploit opportunities offered by digital solutions on one side to enhance the performance of the energy systems and on the other, will look into possibilities of providing services in a bundle – e.g.: electricity, internet connectivity and other services. By exploring the energy-digital nexus, this Action also responds to the Commission's commitment to mainstream digital solutions and technologies in the EU development policy in line with the Digital for Development (D4D) initiative, while putting the immediate focus mainly in Africa, since the digital divide there is the greatest. It will encourage digitalisation in the EU partner countries and the use of innovative digital technologies, especially in the energy sector, that could positively impact millions of people globally.

In order to address the challenge of energy access in remote (including SIDS) and rural areas, that the national grid cannot reach, a particular preference will be given to micro- and mini-grid investments. For instance, a digital-enabled mini-grid would combine a number of digital-energy nexus solutions, as following: drones for mapping the area and setting of the grid poles; artificial intelligence software for design and sizing of the energy producing subsystem; artificial intelligence algorithms for the energy management in the mini-grid; internet of things (IoT) for the communication among the sensors and actuators that comprise the energy management and control system of the mini-grids; smart meters for logging the energy consumption and control of connection/disconnection of users to the mini-grid depending on their payment status; a web server and a mobile phone application for implementing a PAYG model and mobile money; big data for storing operational data of the system; cloud computing for forecasting the production of renewables based on meteorological conditions (a more comprehensive list of the considered digital solutions is available in Appendix II; given the innovative character of these solutions, the list is not exhaustive, as technological progress might allow for the identification of additional ones throughout the implementation period of the Action).

The Action will focus in particular on providing energy access for productive uses and on creating the market capacity in the targeted rural areas through pre-financing the acquisition of energy efficient appliances - that can both have a significant impact on ensuring the financial sustainability of the investments. When productive users already use diesel generation engines, opportunities of hybridising their energy generation and installing storage solutions will be sought. Drawing from the experience of micro-grid development so far, more than 80% of their power production may need to be allocated to productive uses to secure commercial viability of these projects. Their viability can be ensured, for instance, by income generation in agriculture (e.g. irrigation pumps), industry, manufacture and other productive or commercial activities (e.g. milling, rice de-husking, oil pressing, wood/metal workshops, shops, bars, ice-makers, battery charging and renting, lantern renting), which can all improve the potential to make economic gains. Moreover, by targeting provision of energy to anchor loads (e.g. telecom towers, mines, greenhouses), a constant and reliable demand of electricity can be ensured and thus the financial sustainability of the projects increased. In cases where energy access is needed for social infrastructure in remote and rural communities, such as education and health services, possibilities of providing a social tariff will be considered.

Moreover, digital application can play a significant role in alternative financing activities through 'online marketplaces', as reward-based crowdfunding, equity crowdfunding, peer-to-peer consumer and business lending, invoice trading third party payment platforms. Alternative finance instruments can include cryptocurrencies, SME mini-bond, social impact bond, community shares, private placement and other 'shadow banking' mechanisms. Alternative finance solutions enable due to innovative technology 'disintermediation', which means utilising third party capital by connecting fundraisers directly with funders, and in turn, reducing transactional costs and improve market efficiency compared to traditional banking or capital market finance.

In addition, particular attention will be given to targeting as well the vulnerable parts of the population (women, youth). In line with the EU Gender Action Plan, investments will include to the utmost degree a gender component. Women will be beneficiaries of this Action, but will also take up the role of entrepreneurs or key actors in the energy sector value chains (including energy providers, decision-makers, technicians and active/productive users) and will thus play a significant role in leveraging the full economic potential of the energy-digital nexus and in building business models. As women who will benefit from the Action may have different needs and resources level, this will determine the corresponding activities, services and accompanying measures to be proposed by the implementing partner(s).

Access to reliable energy supply in health facilities is essential to deliver many health services, including in childbirth, vaccination, provision of hot water, lighting, sterilization of equipment as well as for maintaining health care staff in remote areas. Moreover, taking into consideration that millions of people in partner countries are still living without access to clean cooking technologies, this Action will also give enhanced attention and will focus on boosting investment in clean cooking. In a context where there is no single solution – no single stove or single fuel -- for this complex issue, the Action aims at taking a whole systems approach and at making use to the extent possible of innovative solutions. Therefore, one of the identified and supported business models will target clean cooking, including the use of digital technologies, such as PAYG, smart canisters or smart gas valves, cloud-connected kiosks to buy cleaner fuels (compared to solid fuels) such as liquefied petroleum gas (LPG) or ethanol and overcome the affordability barrier previously faced by consumers unable to afford the upfront cost of household energy products. In addition, high energy efficient slow cookers that do not require connection to high voltage electricity will also be considered.. In those cases where conventional clean and energy efficient cook stoves – without integrating innovative solutions - would show benefits, for instance being sold as part of a package together with the electricity consumed, these will also be considered.

As lessons learned from successful digital technologies and innovative business solutions are not sufficiently capitalised and shared to a wider audience of decision-makers, the Action will also include awareness raising and capacity building activities through partnerships with the OECD/IEA and the UNDP/Climate Parliament.

2 RISKS AND ASSUMPTIONS

Risks	Risk level: High (H) / Medium (M) / Low (L)	Mitigating measures
Low response from the private sector (in relatively advanced markets)	L/M	The private sector response to similar initiatives such as ElectriFI confirms the readiness and determination of industry and the financiers to put forward adequate number of quality project proposals. The preparatory phase for this Action, ensured through a TAF assignment and in close cooperation with the EU Delegations will screen potential challenges and will map the opportunities and the optimal business models per targeted partner country in order to provide more certainty to the private sector and the financiers. The concerned stakeholders are already invited to participate in meetings and workshops organised by the Commission, allowing for a proper consultation on the needs and opportunities in the energy-digital nexus. Moreover, the familiarisation of the industry and development financiers with the Action will result in an increased numbers and improved quality of projects.
Low response from the private sector in LDCs, fragile states and SIDS	H	This risk will be higher in challenging market environments, such as LDCs, fragile states and SIDS, where there is still reluctance in terms of investments, both from IFIs and the private sector. This is being mitigated through the organisation of targeted field missions to these partner countries, including consultations with the concerned stakeholders to identify their needs in order to enter such challenging markets and in order to increase interest and awareness with regards to existing opportunities in the energy-digital nexus. Should the low interest and response from the private still persist, a direct management method of implementation is foreseen (i.e.: call for proposals giving

		priority to specific LDCs that would meet a minimum set of criteria, including on the business model).
Risk for unsuccessful implementation of the projects submitted	L	A pre-screening of the investment-conducive regulatory frameworks and optimal sites is being carried out within the TAF assignment. Due diligence will be carried out as appropriate prior to the allocation of financing support by the financial institutions concerned.
Non-reimbursement of pre-financed connection costs and/or sale of appliances by mini-grid consumers	M	The mitigation measures include the performance of studies in order to assess the sustainability and affordability of the proposed business models in specific sites, as well as surveys and use of simulation tools as part of due diligence.
Interventions under the Action are not sustainable	L	The private sector involvement in the investments is per se a factor that increases chances for sustainable activities. The focus on providing energy access for productive uses and anchor loads will further increase the financial viability of the projects.
Affordability issues related to mini-grid business models and digital solutions	L	The TAF assignment will look into the optimal business models that can ensure affordability and thus, also financial viability. At a later phase, due diligence will be performed as appropriate to address such risk ensuring that the Action support is provided to projects delivering affordable energy and energy services. Bundling services will be sought as a solution to ensure affordability.
The level of involvement of women in the Action is low due to discriminatory approaches in the targeted communities or the digital solutions proposed are not used to the same degree by women as by men due to a lack of skills	L/M	Women are often discriminated against access to and control over resources (energy, finance etc.) Awareness campaigns will be developed at community level and men will be involved in the process in order to sensitise the community. Following surveys with disaggregated results by gender, trainings will also be organised in order to improve digital, technical and financial literacy of the targeted community and ensure that the benefits of the implemented projects and

		the usage of the proposed solutions are equal for both men and women.
Environmental impacts of the Action	L	High standards on environmental and social conditions to be met, in line with the European practice and the Guidelines on "*Integrating the Environment and Climate Change into EU International Cooperation and Development towards Sustainable Development*" will apply. Due diligence will be carried out as appropriate, including with regard to social and environmental aspects including the safe disposal and recycling of polluting elements.
Poor promotion of the Action/Lack of visibility for the EU	L	Visibility for the upcoming Action is already being ensured through the TAF assignment. Meetings and workshops organised by the Commission already raise awareness about the Action and follow-up measures will also be taken after its launch and ensured through appropriate contractual obligations.
Emerging challenges related to digitalisation, such as cybersecurity, privacy etc.	M	Energy systems employing digital solutions may be at risk from emerging challenges of these transformative approaches. Risk screening will be applied as appropriate and mitigating measures taken through usage of the best available technology.
Assumptions		
• Conducive regulatory framework in place and quality projects pipeline so as to attract interest. • Services available thanks to the infrastructure built are affordable • Technical assistance for financing applications will be provided by the EU TAF • Models and data developed with the support of this Action are used for development of new policies in the field of energy.		

3 LESSONS LEARNT AND COMPLEMENTARITY

3.1 Lessons learnt

While decentralised mini-grids business models have shown some uptake in developing countries, including in East Africa, deployment of mini-grids faces a number of challenges, out of which attracting private sector funding is the most pronounced. Therefore, based on feedback from the market, boosting mini-grid development with the mobilisation of the private sector needs to be prioritised.

Secondly, when considering the value-added of employing digital solutions in energy projects, the Commission has already supported in the framework of the Energy Facility and ElectriFI a number of successful innovative business models involving mobile applications to sell and buy electricity and projects linking telecom towers with sustainable electricity generation or consumption in remote rural communities, showing that such business models can successfully improve the performance of the energy systems or ensure a stable load. There is clear added value of employing digital solutions in energy projects.

Past experience has also shown that, a more enhanced focus on the end use of energy and the promotion of productive uses of energy in other sectors will fully exploit the potential for energy to become an enabling factor for other sectors and a means for economic growth.

Lack of access to energy and energy services as well as to affordable finance prevents women from engaging in economic activities related to sustainable energy or activities generating income thanks to energy access. Without affordable access to energy they cannot spare time spent to collect wood etc. and invest it in other activities such as education and income generating activities. According to findings from the work carried out under the "Women in Sustainable Energy" initiative and previous studies, access to finance and the prices of sustainable energy equipment/products are both key barriers at the core of women engagement in the energy sector. Often women do not have any bank account, the interest rates are too high, the products too expensive etc. Mechanisms to provide for affordable access to finance and to entrepreneurship opportunities in the energy sector have shown to be successful. Also studies show that supporting/investing in women has a multiplier effect through their families and communities. It is also argued that women are able to scale distribution through their existing networks and reach new segments of the market. Other identified gaps are the lack of technical knowledge and awareness of sustainable energy solutions among women. Adequate and adapted vocational trainings and awareness raising tools to the different levels of entrepreneurs and sustainable energy users and their specific needs can address this issue.

As the Action will also focus on supporting and boosting clean cooking for better health and in order to fight household air pollution, it will also make use of the expertise and lessons learned of the WHO in monitoring the use of solid fuels for cooking and the related death and disease burden, as well as its continuous efforts in working with countries to raise awareness and build capacity to address the health impacts of indoor air pollution.

As it has been shown that policy dialogue is most effective and impactful when closely linked to operational interventions, the work on the 'PARE' initiative has successfully engaged local members of the parliaments in partner countries towards the end of establishing policies that help create an enabling environment for the private sector and encourage investment in financially sustainable business models. Moreover, by investing in structures that are more long-term instead of engaging only with individual parliamentarians, the new phase of the PARE initiative will better ensure continuity and persistence of the acquired results. The whole Action will thus, look into the EU support playing a more active role as an agent for change and reform in partner countries.

3.2 Complementarity, synergy and donor coordination

The Action will avoid duplications of existing actions and will ensure complementarity to other projects/programmes developed in sustainable energy. Activities will be complementary and highly contributing to the line of the National and Regional Programmes, as well as to advance efforts in the framework set by the conclusion of Joint Declarations on enhanced sustainable energy cooperation between the EU and partner countries, while being monitored together with EU Delegations and geographical services.

Complementarity

This Action builds on complementarities with the implementation of the "EU Technical Assistance Facility (TAF) for sustainable energy for all", especially as a preparatory phase has been ensured through the performance of a dedicated TAF assignment on the "*Identification of financially sustainable business models in the energy-digital nexus, focusing on productive use of energy and job creation*". The digital solutions and business models that would enable the deployment of mini-grids, especially in a rural context, have been identified in an Interim Report, while a Final Report will be available later in 2018 and will be duly taken into consideration when this Action would be launched. Moreover, the necessary assessment of the legal and regulatory framework in partner countries to identify the opportunities it offers for the deployment of mini-grid projects with private investment, including cost-reflective tariffs, as well as the market catalysts that would be necessary to this effect or potential challenges that might restrict the implementation and operation of such projects will benefit from the technical assistance and expertise supported under the other proposed Action in sustainable energy on "*Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy*". In addition, the programme GET.Invest, which is superseding the Africa-EU Renewable Energy Cooperation Programme (RECP), will be key in building a projects pipeline for this Action. As it is of utmost importance to ensure a stable regulatory framework and an investment-conducive environment for micro- and mini-grid investments, the Action will also make use of tools of the ongoing EU initiatives on policy dialogue, capacity building and investment support interventions.

The European External Investment Plan (EIP) – with a dedicated investment window on sustainable energy and connectivity – which combines ongoing blending activities with a new guarantee scheme to boost private investments by further reducing the risks involved is also complementary to the Action.

Moreover, given the particular focus on the Sahel region and fragile states, the Action will directly contribute to the Sahel Alliance initiative in the area of "Climate, energy access and green energy" that the Commission supports, which aims at increasing the energy access in five Sahel countries from 2.2 million households today to 4.4 million households and at raising the renewable energy generation capacity in the region with 500 MW by 2022. In addition, some complementarities might also be explored with the European Union Emergency Trust Fund for stability and addressing root causes of irregular migration and displaced persons in Africa (EUTF for Africa).

For Small Islands Development States, knowledge on sustainable energy solutions will be available through a database with an overview of the on-going and future support provided to

SIDS, as well as through a database compiled under the *Clean Energy for EU Islands Initiative*, which will both contribute to helping SIDS implement their energy transition, improve energy efficiency and security and create economic growth and jobs.

By integrating a strong gender component, this Action will be complementary to other ongoing Actions, such as the "*Women in Sustainable Energy*" initiative, through which projects targeting directly women are supported in order to help women establish sustainable businesses thanks to energy access and to promote women entrepreneurship in sustainable energy value chains through innovative approaches. In this context, this Action will build on the pilots initiated under the "Women in Sustainable Energy" initiative and will look into enhancing to the extent possible their use and integration of digital solutions. Moreover, lessons learned from these pilot projects will be used to adapt and improve the accompanying measures that this Action will employ in order to ensure gender equality and women empowerment.

Moreover, when the supported investments would provide additional services in a bundle – digital services/internet connection and for instance, electricity, and water-pumping or water purification solutions, synergies will be created with other sectors, such as water and agriculture.

Synergy

The Action also aims to strengthen the integrated approach of the energy-digital nexus, in close coordination with all parallel EU programmes and initiatives in the sector, whilst also taking advantage of the existing knowledge, expertise and networks established by the Commission services active in this area (e.g.: Directorates-General for: Energy; Research and Innovation; Communications Networks, Content and Technology).

The Action will also contribute to the implementation of the Commission Communication on Accelerating Clean Energy Innovation, in particular Action 15 on "*Joint deployment programmes in developing countries*". For this purpose, a screening of projects funded by the 7th EU Research Framework Programme and the current Horizon 2020 Programme will be performed in cooperation with DG RTD, in view of possible contributions to the implementation of the Action to generate additional benefits to the targeted population and contribute to the technology leapfrog in the partner countries. The screening will focus on the fields of renewable energy and energy efficiency, with an emphasis on innovative business models, the bundling of energy provision with other services, as well as innovative technology solutions to help micro- or mini-grid development. In addition, where relevant, innovative solutions identified during the preparatory stages of the EU-AU Joint Research and Innovation Programme on Renewable Energy to be funded by Horizon 2020 may also inform the implementation of this Action. In view of possible contributions to the implementation of the Action to be made through projects funded by the EU Research Framework Programmes, representatives of the Directorate-General for International Cooperation and Development and the Directorate-General for Programme Research and Innovation will regularly meet in the framework of the established technical committee to assist in the quality assessment of project proposals.

Awareness raising and capacity building activities will be carried out under the smaller actions in partnership with the UNDP/Climate Parliament 'Parliamentary Action on

Renewable Energy - PARE' initiative and with the OECD/IEA, which will increase support for evidence-based and data-driven policies in the energy sector. The activities carried out by the IEA will also complement their Clean Energy Transitions Programme (supported under Horizon 2020), which encompasses enhanced technical co-operation with key emerging economies across data, energy efficiency, renewable energy and electricity systems, policy advice and modelling and technology and innovation. Given that this targets emerging economies, there is no geographic overlap, as the component envisaged under the current Action will specifically target developing countries in Sub-Saharan Africa. These activities are also complementary to the IEA work on collecting available data in view of compiling the World Energy Outlook (an action that does not include however, capacity building activities in the targeted countries and thus, would not double the work carried out under the current Action). To ensure coordination between the different Actions, regular meetings will be organised with the IEA and the two other Commission lead DGs (CLIMA and ENER).

In close cooperation with the World Health Organisation (WHO), the synergies between energy and health will be exploited, with an aim to enable access to essential health services, reduce health inequalities worldwide and contributing to prevent deaths or significant health problems due to indoor air pollution through clean cooking solutions or more broadly, through clean energy solutions. Thus, the Action will also contribute to global initiatives such as the Global Alliance for Clean Cook stoves, in which the WHO is involved.

Donor coordination

Donor coordination will be ensured at local level through the participation of the EU Delegations in sectorial dialogues, as well as through EU's membership to international initiatives and partnerships, such as the Africa-EU Energy Partnership (AEEP) and the Africa Renewable Energy Initiative (AREI).

Continued coordination with all stakeholders will ensure the selection of the most suitable business models to be supported, aiming at optimal development impact and avoiding duplication with any on-going support programme. Coordination with EU Member States will be complemented through the EU Energy Initiative (EUEI).

4 DESCRIPTION OF THE ACTION

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

The overall objective of this Action is to create sustainable and inclusive economic growth in partner countries, especially among the vulnerable parts of the population and in the least developed states (LDS).A particular focus will be on supporting decentralised approaches, especially based on digital-enabled micro- and mini-grid models, that can significantly contribute to improving energy access for poor people in remote and rural areas, improve financial inclusion and boost job creation,

Thus, the specific objectives of the Action are the following:

SO1: Access to modern, affordable and sustainable energy and to digital services is increased/improved;

SO2: Private sector investment in the 'missing middle' of sustainable energy investments, especially based on micro- and mini-grid business models and employing digital solutions is increased;

SO3: Additional financing for renewable energy and digital solutions investments, including from DFIs, micro-financing institutions and crowdfunding platforms is increased;

SO4: Evidence-based and data-driven policies in sustainable energy adopted and implemented by the governments of partner countries.

Through this Action, it is expected that the following outputs will be achieved:

- Infrastructure for increased/improved access to reliable, affordable, modern and sustainable energy and digital services will be installed and/or enhanced;
- Strengthened evidence-base for investment in mini-grids and digital solutions;
- Reimbursable schemes financing for renewable energy mini-grid projects will be provided;
- The capacity of national authorities in energy data collection, modelling and statistics and evidence-based decision-making will be strengthened.

Main activities

The types of operations to be financed under this Action are:

Energy access

1. Building/improving energy access, including by installing micro- and mini-grids with a focus on off-grid solutions employing digital technologies, but exceptionally also connections to the existing grid and reinforcing and/or expanding the existing grid/distribution network. To this end minimising losses, in the sense of energy efficiency measures thanks to digital solutions, is also to be taken into consideration;
2. Energy generation from Renewable Energy Sources to ensure the provision of modern energy services along with digital services and energy efficiency measures to households, businesses and/or essential public services – schools, hospitals – operated by public or private organisations and energy storage. Decentralised (off-grid) generation will be mostly considered, but also grid connected generation;
3. Hybridisation of existing fossil fuel-based generation systems with Renewable Energy Systems ("greening") and integration of digital solutions;
4. Incorporating Renewable Energy Systems and digital solutions into production methods to promote productive uses of energy with a view to boosting economic development and job creation. Emphasis will be put on activities integrated in the energy-water-agriculture nexus, but also in synergy with other sectors, such as health, education, culture, tourism etc. Furthermore, specific activities allowing the economic empowerment notably of women of all ages, youth and supporting vulnerable groups will be targeted;

5. Introduction of digital and innovative technologies to improve the performance of public or private utilities through the creation of sustainable partnerships between local utilities and start-ups active in the energy-digital nexus;
6. Providing support to access financial services thanks to digital solutions on one side, and to affordable finance thanks to the financial mechanism established and the accompanying capacity building/training activities.

Several digital applications will be integrated in the business models and the micro- and mini-grid projects in order to decrease costs:

(i) Site data collection - including climate data, socio-economic data, local economy data and spatial planning data. Digital applications can facilitate and provide some of this data through the internet at no cost, or other software can be used to facilitate the data collection and analysis and further building of productive use activities around them.

(ii) Smart meters installation – as a starting point for any type of digital applications.

(iii) Design and sizing of the mini-grid - software for techno-economic optimization in order to properly match the demand with the design system.

(iv) Intelligent energy management system - that can further decrease the installation cost since the production of energy is optimised.

(v) Revenue collection system - depending on the model chosen, hardware and software combinations have to be chosen in order to allow PAYG schemes, mobile payments, and setting pricing strategies commonly for all produced product/services in order to ensure economic viability etc.

(vi) Operation monitoring system - a proper design data acquisition system can facilitate proper maintenance increasing the operational lifetime of equipment, decreasing excessive wear and ensuring that no considerably high drops in efficiency are observed.

Clean cooking solutions and energy access for improved healthcare

7. Installation of improved and clean cooking solutions (including energy efficient cook-stoves, mobile payment solutions);
8. In synergy with the operations described under 1-6, identification and support of appropriate energy service delivery models and options to promote demand-side energy management and improvements in energy efficiency to ensure access to energy and increase the reliability of energy services in health care facilities.

Evidence-based and data-driven policies

9. Tracking and monitoring African energy transition processes to guide policy priorities and assess effectiveness of investments by i) developing and improving reliable, harmonised country-level energy statistics and balances disaggregated by sex to the possible extent – including for energy supply, energy use and efficiency, energy access, investment, price, biomass and CO_2 emissions related to energy consumption emission – made freely available online alongside existing data as a public good to support energy planning, monitoring, decision-making processes and tracking progress towards a renewable energy transition and universal energy access; ii)

capacity building in energy data collection (including also through digital means), analysis and statistics and survey methodologies to sustain tracking and planning efforts;

10. The development of open-source energy models to map scenarios for the achievement of more ambitious NDCs objectives aligned with energy plans as well as SDG7 in collaboration with the institutions that have the mandate for energy planning and modelling;
11. Model training in the relevant institutions to ensure sustained development and use of open-source models for policy beyond the project lifetime.

Engagement of national parliaments in sustainable energy cooperation

12. Establishment of institutional structures that are long-term or permanent, such as inter-groups or joint parliamentary initiatives, in order to ensure the continuity of the policy dialogue with members of the national parliaments in partner countries with the aim to enhance support for sustainable energy policies and regulatory frameworks that enable investments in the identified business models;
13. Organisation of dedicated activities, such as regional conferences and roundtables, elaboration of guidebooks and toolkits, aimed at further engaging local members of the parliaments in partner countries towards the end of establishing policies that help create an enabling environment for private sector investments, on the one hand, and on the other, encourage investment in financially sustainable business models that employ innovative technologies and focus on productive uses.

The above list of activities is not exhaustive. Priority under this Action will be nevertheless given to projects having an important energy access component, addressing in particular the areas detailed above under Activities 1-6.

In "horizontal terms", even where not specifically indicated, all activities listed above will be accompanied by capacity building/training activities (when applicable) to ensure the transfer of know-how to the local business sector and enhance the element of ownership, as part of the activities' sustainability. Innovative activities especially those allowing significant leverage of private and commercial funding will be encouraged. Activities built on strong partnerships between the private sector and local actors and/or Civil Society Organisations (CSOs) of the respective countries will be prioritised.

Finally, information and communication activities designed to raise the awareness of specific or more general audiences on their benefits from the EU support in the country or region concerned, as well as of the results and the impact of this support, will be required in form of obligation of the implementation partner as well as in the contracts to be concluded with the beneficiaries. The promulgation of knowledge (and ideally minimum standards) addressing the electricity-dependency of specific health service packages will also help ensure the appropriate (and needs-based) sizing and deployment of solutions.

4.2 Intervention Logic

This Action is relevant for the Agenda 2030. It contributes primarily to the progressive achievement of SDG 7, but also promotes progress towards Goal(s) 13: Take urgent action to combat climate change and its impacts, 5: Achieve gender equality and empower all women

and girls, 8: Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all, 9: Industry, innovation, infrastructure, 3: ensure healthy lives and promote well-being for all at all ages. This does not imply a commitment by the countries which will be benefiting from this programme.

In order to tackle the worst impacts of poverty in partner countries and ensure an equitable economic growth, the Action aims at increasing or improving cost-efficient access to affordable, reliable, sustainable and modern energy, as well as to other services, including digital services (SO1) by supporting, unlocking, accelerating and leveraging investments in energy infrastructure based on financially sustainable business models in the energy-digital nexus output 1. The Action will contribute to improving financial inclusion and to boosting job creation (output 1, indicator 1.5) and a significant focus will be put on providing energy for productive uses (output 1, indicator 1.1, with a focus on commercial consumers). The generated energy will thus be used for a broad range of income-generating activities in agriculture, industry, manufacture and other productive or commercial activities. Furthermore, another benefit of enabling productive uses is that the commercial viability of energy investments will also be improved through a constant and reliable energy demand and stable payment revenues for developers. The sustainability of investments is thus ensured longer-term. Broadening the focus of the investments beyond households to include energy for productive uses will create a stronger business case for investors, as well as a greater impetus for policy-makers to adopt measures targeting off-grid solutions to improve access to electricity. Cooperation in the field of sustainable energy has a significant potential for job creation along the energy value chain including not only through direct and indirect jobs related to the construction, installation, operation or maintenance of the energy systems and during development, dissemination activities or capacity building in the sector, but also through induced jobs, created due to the energy services provided. Especially in rural and remote areas, new access to energy, most of the times off-grid, has the potential to completely transform the economy of a community. In addition, by enhancing decentralised systems with digital solutions, such as Pay-As-You-Go (PAYG) mobile payment solutions, opportunities will be created to boost financial inclusion even to the poorest part of the population by enabling access to financial services, even to those who, for instance, do not own a bank account.

If the evidence-base for investment in mini-grids and digital solutions through the implementation of pilot projects is strengthened (output 2), by demonstrating the feasibility of financially sustainable business concepts in the energy-digital nexus and thus providing more confidence to project developers, investors and financiers to sponsor or support more innovative projects in the 'missing middle' of sustainable energy investments - especially based on micro- and mini-grid business models and employing digital solutions - then the private sector investment in this area will be increased (SO2). To support this, the Action may provide – if need be, subject to the proposal(s) of the implementing institution(s) and as part of a specialised and project-specific Technical Assistance component with the aim of building a project pipeline - special early stage technical support related to digital solutions, as well as early stage support through standardised structuring and advice, targeting with main priority the "bankability" of investments. However, this will exclude technical assistance support that can already be covered under the current EU TAF or under the Action envisaged on "Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy", as described under section 3.2.

By providing EU reimbursable schemes financing for renewable energy mini-grids projects (output 3), the additional financing for renewable energy and digital solutions investments, including from DFIs, micro-financing institutions and crowdfunding platforms will be increased (SO3). In this context, by taking a more strategic approach to target the poorest of the poor (bottom of the pyramid), while ensuring affordability of consumed energy and the sustainability of projects in countries with more challenging market environments,, the Action will put a more ambitious focus on fragile states or regions such as the Sahel and the Small Island Developing States (SIDS), which are currently underserved in terms of support received under investment facilities. While the impact of the Action will be limited to a number of priority countries, it will have an effect on opening new markets through the implementation of pilot-projects with a high scalability and replicability potential, delivering cost efficient and fast results in terms of access to energy and digital services and prioritising productive uses in the energy-digital nexus with water, agriculture, health, education etc.

Particular focus on these more challenging market environments is therefore ensured also during the preparatory phase of the Action, with the EU TAF-led study focusing on these areas both in terms of desk research and field missions. In this direction, the establishment of a mechanism / revolving fund offering contingent debt / reimbursable grant type of support is being explored, which would target:

(i) the advanced payment of connection costs (focusing on off-grid/ mini grid connections), which would increase affordability also for poorer households,

(ii) access to early financing to those connected to mini-grids for appliances linked to basic life line services and productive uses (generating new jobs and income for the beneficiaries and also improving the market capacity also in areas where energy needs would otherwise remain low),

(iii) reducing the cost of minimum life line consumption by offering lower (social) tariffs to households and social infrastructure (health centres, schools, police stations, security/street lighting).

This mechanism will provide in remote rural areas (in the off-grid context), the critical demand base that is indispensable for new financially sustainable investments, thus allowing new business models and a sustainable energy business ecosystems to emerge. An assessment targeting the viability of such measures would be carried out in order to mitigate existing risks, including a screening to flag those countries where for instance the provision of a social tariff is not endorsed in the partner country's legislative framework. Based on the efficiency and success of the operations supported under such fund, this could be continued and expanded in the future, beyond the 6 years duration envisaged for this Action.

Moreover, the Action will contribute to increasing evidence-based and data-driven policies in sustainable energy adopted and implemented by the governments of partner countries (SO4), by improving data for tracking and monitoring the African energy transitions, establishing common methodologies for measuring on- and off-grid energy access and traditional biomass and strengthening the capacity of national authorities in energy data collection, modelling and statistics and evidence-based decision-making (outputs 4, 5 and 6), helping national authorities in partner countries and guiding investments, policies and energy sector planning. More specifically, through the partnership with the OECD/IEA, the Action will help in proving through robust statistics that grid operation is not sufficient and will form the basis for data-driven policy dialogue with policy makers in order to enhance focus and priority on

the work with off-grid solutions in rural areas. Under the PARE initiative in partnership with the UNDP, members of national parliaments in partner countries will play a significant role in supporting and encouraging reforms and new regulatory frameworks that would allow for financially sustainable business models in the off-grid sector and the accommodation of new technologies.

4.3 Mainstreaming

The Action will aim at mainstreaming cross-cutting issues of the development cooperation. Gender, resilience, climate change and environment protection are fully integrated in the proposed action, as there is a clear contribution to climate change (SDG13) as well as to inclusive growth (SDG8).

Investments supported under this Action, besides providing access to energy and digital services, will help addressing climate change and environment degradation. More specifically, the Action will reduce dependence on fossil fuel-based systems and favour use of renewable energy, thereby contributing to climate change mitigation objectives. Explicit attention is also given to clean cooking solutions – which would tackle deforestation and indoor air pollution.

These investments, by providing energy for productive use, will also help tackle issues related to broader concerns, such as stability, food insecurity and under-nutrition, by improving agriculture practices and agribusinesses, and they will positively impact other sectors, such as education and health, by enabling the electrification of social infrastructure. Moreover, the Action will also contribute to the mitigation of the root causes of migration by providing opportunities for economic growth and employment and will strengthen the resilience of the targeted communities against shocks and disasters by helping to diversify the energy sources in given communities, the income of the beneficiary population, as well as by reducing environmental impacts and improving food security and nutrition.

Many of the countries with challenging market environments that this Action aims at focusing on experience fragility risks, where conflicts can be natural resource-based. Therefore, as a general rule, but especially in fragile and conflict-affected contexts, the investments to be supported will be conflict-sensitive, including by ensuring that grievances and inequalities among groups are not increased and that poor and marginalised communities are not displaced from land essential to their livelihoods.

Following the adoption in 2014 of the Tool-box "A Rights-Based Approach, encompassing all human rights, for EU development cooperation" and the subsequent adoption in 2014 of the related Council Conclusions, the European Commission committed to moving towards a Rights-Based Approach encompassing all human rights - whether civil, political, economic, social or cultural - in all external cooperation. All operations supported under this Action will therefore follow a Rights-Based Approach.

4. 4 Contribution to SDGs

This intervention is relevant for the 2030 Agenda. It contributes primarily to the progressive achievement of SDGs 7 and 13 while mainstreaming job creation and gender equality to address SDGs 8 and 5, thus contributing to the people, planet, prosperity and partnerships dimensions of the European Consensus on Development. Moreover, through its component

focusing on providing access to reliable electricity to health facilities and integrating clean cooking solutions to fight household air pollution, the Action also contributes to SDG 3.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this Action, it is not foreseen to conclude a financing agreement with any partner country

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 72 months from the date of adoption by the Commission of this Action Document.

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

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[3].

The project modality of this Action will consist of a combination of management modes, as presented below:

5.3.1 Indirect management under the blending facilities framework - Boosting a pipeline of investment projects and supporting projects delivering access to affordable, reliable, sustainable, modern energy and digital services in particular in those countries where the private sector participation in sustainable energy investments is low

The main part of this Action shall be implemented under indirect management with the entities, called Lead Financial Institutions, and for amounts of approximately EUR 21.5 million.

The Lead Financial Institutions are entrusted with budget-implementation tasks consist in the implementation of procurement, grants, financial instruments and payments. The entrusted Lead Financial Institution shall also monitor and evaluate the project and report on it. The Lead Financial Institutions are not definitively known at the moment of adoption of this Action Document.

5.3.2 Indirect management with an international organisation (UNDP)

A part of this action may be implemented in indirect management with the United Nations Development Programme (UNDP). This implementation entails the continuation of the

[3] https://eeas.europa.eu/sites/eeas/files/restrictive_measures-2017-04-26-clean.pdf

Climate Parliament 'Parliamentary Action on Renewable Energy - PARE'. This implementation is justified as the previous phases of the PARE have demonstrated benefits in informing policy / decision makers, especially in national parliaments of partner countries, of the merits of renewable energy policy and in building up their support. The EU supported 2 previous phases of the PARE initiative: PARE I, implemented between 2012 and 2016, which covered 4 sub-Saharan countries (Congo, Tanzania, Senegal and South Africa); 4 Arab states (Jordan, Lebanon, Morocco and Tunisia) and 2 Asian countries (Bangladesh and India); and PARE II, which was implemented between 2015 and 2017 and covered Senegal, Cote d'Ivoire and Benin.

Under this Action, the Technical Committee following it will steer the overall process and will ensure through monitoring activities that priority will be given to PARE activities targeting the engagement of members of parliaments in those partner countries where micro- and mini-grids would be implemented under the component on the energy-digital nexus. Parliamentarians would thus play a significant role in lobbying for new regulatory frameworks that would allow for the accommodation of new technologies. To this end, close cooperation with the respective EU Delegations will also be ensured.

The entrusted entity would carry out the following budget-implementation tasks:

- Establishment of institutional structures that are long-term or permanent, such as inter-groups or joint parliamentary initiatives, in order to ensure the continuity of the policy dialogue with members of the national parliaments in partner countries with the aim to enhance support for sustainable energy policies and regulatory frameworks that enable investments in the identified business models;
- Organisation of dedicated activities, such as regional conferences and roundtables, elaboration of guidebooks and toolkits, aimed at further engaging local members of the parliaments in partner countries towards the end of establishing policies that help create an enabling environment for private sector investments, on the one hand, and on the other, encourage investment in financially sustainable business models that employ innovative technologies and focus on productive uses.

5.3.3 Indirect management with an international organisation (OECD)

A part of this Action may be implemented in indirect management with the Organisation for Economic Co-Operation and Development (OECD). The OECD will delegate the implementation of the activities foreseen under this Action Document to the International Energy Agency (IEA). The IEA is an autonomous body within the OECD framework, operates within the financial framework of the OECD and works to ensure reliable, affordable and clean energy for its 30 member countries and beyond. This implementation entails interventions designed to inform policy and decision makers, energy-related authorities and stakeholders of the merits of respective business models when planning their energy futures, increasing support for evidence-based and data-driven policies in the sustainable energy sector. This implementation is justified as the IEA Energy Data Centre already provides a highly authoritative and comprehensive source of energy data. The IEA has collected, assessed and disseminated energy statistics on supply and demand and compiled them into energy balances since 1971, with the time series currently covering over 150 countries individually, including individual entries for 30 African countries. The emphasis on sound data provides a unique platform for modelling work and tracking countries' energy

transitions. Moreover, the IEA is the lead custodian agency for reporting progress towards substantially increasing the share of renewables in the global energy mix (SDG 7.2) and doubling the global rate of improvement in energy efficiency (SDG 7.3). The World Energy Outlook has been tracking progress on achieving universal electricity and clean cooking access (SDG 7.1) since 2002. As off-grid solutions become a crucial means of providing greater access to energy services, the IEA launched a new initiative to track off-grid electrification in 2017.

This part of the Action would also build on and complement existing IEA initiatives and joint work, including the Global Tracking Framework (in conjunction the World Bank and others), and the IEA's collaboration with the African Union Commission (AUC), the African Energy Commission (AFREC), the African Development Bank (AfDB) and the International Renewable Energy Agency (IRENA), including the joint IEA/IRENA database on policies. More specifically, the IEA has been working with AFREC since 2010, initially developing a simplified energy template, and most recently, a targeted energy end-use and efficiency template to collect residential energy-use data, with plans to expand further to other demand sectors. This work has been coupled with a series of successful training events in Sub-Saharan Africa since 2013, which have trained more than 300 energy statisticians across Africa and endeavoured to raise their profile.

The entrusted entity would carry out the following budget-implementation tasks:

- Tracking and monitoring African energy transition processes to guide policy priorities and assess effectiveness of investments by i) developing and improving reliable, harmonised country-level energy statistics and balances – including for energy supply, energy use and efficiency, energy access, investment, price, biomass and CO2 emissions related to energy consumption emission – made freely available online alongside existing data as a public good to support energy planning, monitoring, decision-making processes and tracking progress towards a renewable energy transition and universal energy access; ii) capacity building in energy data collection, analysis and statistics and survey methodologies to sustain tracking and planning efforts;
- The development of open-source energy models to map scenarios for the achievement of more ambitious NDCs objectives aligned with energy plans as well as SDG7 in collaboration with the institutions that have the mandate for energy planning and modelling;
- Model training in the relevant institutions to ensure sustained development and use of open-source models for policy beyond the project lifetime.

5.3.4 Direct management in cases where the size of investments is not attractive for DFIs

In cases where the size of investments is not attractive for DFIs (in particular for delivering benefits to the most vulnerable population groups, women and youth), especially in countries with challenging market environments such as those from the Sahel region and fragile states, direct management options could be considered, including a call for proposals to be managed by DEVCO C6.

5.3.4.1 Changes from indirect to direct management mode due to exceptional circumstances

When the indirect management implementation modality above cannot be implemented due to circumstances outside of the Commission's control, the preferred implementation modality to replace indirect management will be direct management.

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 realization of this action impossible or exceedingly difficult.

5.5 Indicative budget

	EU contribution (amount in EUR)	**Indicative third party contribution, in currency identified**
Indirect management – implemented under blending (unless DFIs/partners under blending demonstrate an interest for supporting this type/size of investments in poor rural areas, then alternative options including direct management will be considered)		
Energy-Digital Nexus investments	**21 100 000**	**tbc**
Monitoring and Evaluation	300 000	N.A.
Audit	will be covered by another decision	N.A.
Communication and visibility	100 000 + additional activities to be covered under another decision	N.A.
Indirect management with International Organisations (indicative amounts)		
OECD/IEA initiative on data collection and statistics	**3 000 000**	N.A.
Support to the UNDP/Climate 'Parliamentary Action on	**2 000 000**	N.A.

Renewable Energy' (PARE) initiative		
Totals	**26 500 000**	**tbc**

5.6 Organisational set-up and responsibilities

In terms of the main component of the Action, focusing on energy-digital nexus investments, the implementation will be regularly monitored via a Technical Committee to be invited by the Commission, gathering the Commission services active in the area of interest of the Action, as well as Finance Institutions eligible under the EU blending framework. Depending on the Agenda, participation to the Technical Committee meetings can be extended to include local authorities, Civil Society Organisations etc.

In terms of investment decision-making process, the governing structure, rules and procedures of blending will be applicable for blending operations. The Boards will be chaired by the European Commission and include the European External Action Service (EEAS) and the EU Member States as voting members, and Financial Institutions as observers. The set of criteria for assessing proposals are those applicable under blending, whilst financial institutions need to demonstrate systematic consultation of the EU delegations and Commission services concerned at the stage of project preparation, as well as during implementation. The Commission will have a veto right, regarding any investment proposal, which will determine that the investment proposal is rejected. It is anticipated such veto should be used by way of exception and as a rule be as early as possible in the process prevented through the regular reviews and discussions of pipeline.

For a project to be approved for support under this Action, it will have to include a study to identify a baseline and targets for the concerned country to allow for an efficient monitoring of the project's implementation and results. Moreover, stock taking missions and surveys for baselines and targets per country will be conducted in the inception phase of the Action, either under the EU TAF or by the respective implementing partner(s) if specialised expertise requires it.

The other activities, implemented in partnership with the OECD/IEA and the UNDP/Climate Parliament will be closely monitored per the respective contractual conditions and, if need be, will be reported to the Technical Committee in order to seek feedback and advice and to have their priorities and geographic area of focus aligned with the work on the energy-digital nexus investments. DG ENERGY will be invited to the Steering Committee of the project implemented by the OECD/IEA.

5.7 Performance and Results monitoring and reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (outputs and direct outcomes) as measured by corresponding indicators, using as reference the Logframe matrix.The baseline data will be identified during the inception period

by the implementing partner, with due consideration to the work carried out in partnership with the OECD/IEA on statistical data.

SDGs indicators and, if applicable, any jointly agreed indicators as for instance per Joint Programming document should be taken into account.

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).

In parallel to the above, JRC is working to set up an IT tool designed to host different energy related data and make sure that monitoring results are publicly accessible.

Finally, specific OVIs (objectively verifiable indicators) will be identified and approved for each specific project supported by this Action to facilitate their monitoring and reporting.

5.8 **Evaluation**

Having regard to the importance of the Action, a mid-term and an ex-post evaluation will be carried out for this Action or its components via independent consultants contracted by the implementing partners.

The mid-term evaluation foreseen will be carried out for learning purposes and respective problem solving, in view of a possible continuation and/or enlargement of the Action.
The ex-post evaluation foreseen will be carried out for accountability and learning purposes at various levels (including for policy revision).

The Commission shall be informed by the implementing partners at least one month 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 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.

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. In

this case, the financing of the audit shall be covered by another measure constituting a financing decision.

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 line with the budget envisaged in section 5. In addition, some communication and visibility activities to promote the initiative may be implemented with a procurement procedure including framework contracts, and/or, exceptionally, grants, to be covered under another decision.

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.

APPENDIX I - INDICATIVE LOGFRAME MATRIX

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	**Indicators**	**Baselines** (incl. reference year)	**Targets** (incl. reference year)	**Sources and means of verification**	**Assumptions**
Overall objective: Impact	Create sustainable and inclusive economic growth, especially among the vulnerable parts of the population and in the least developed states (LDS)	Employment rate in final project regions/countries, disaggregated by sex Poverty rate in final project regions/countries disaggregated by sex	Country dependent – National statistical data and IEA data at country level to be defined during the inception period	Increase of employment rate at national levels Decrease of poverty rate at national levels	National statistical data at country level and IEA statistical data	
Specific objective(s): Outcome(s)	SO 1 Access to modern, affordable and sustainable energy and to digital services is increased/improved	1.1 Increase in the rate of access to modern, affordable and sustainable energy and to digital services in the targeted communities 1.2 Increase in the rate of access to modern, affordable and sustainable energy and to digital services in the targeted countries (urban and rural)	Zero / 2018 Country dependent – National statistical data and IEA data at country level	25 micro-/mini-grids	Action reports Sample studies based on net metering data	Conducive regulatory framework in place and quality projects pipeline so as to attract interest

	SO 2 Private sector investment in the 'missing middle' of sustainable energy investments, especially based on micro- and mini-grid business models and employing digital solutions is increased	2.1 Number and amount of investments leveraged thanks to the Action	Zero / 2018		Monitoring, tracking and reporting on the overall Action will also be coordinated in an online interactive GIS-based platform currently under development by JRC Baseline and end line studies to be commissioned under the EU TAF	
	SO 3 Additional financing for renewable energy and digital solutions investments, including from DFIs, micro-financing institutions and crowdfunding platforms is increased	3.1 Amount of financing allocated to renewable energy and digital solutions projects by DFIs, micro-financing institutions and crowdfunding platforms	To be determined at inception phase			
	SO 4 Evidence-based and data-driven policies in sustainable energy adopted and implemented by the governments of partner countries is increased	4.1 Number of pieces of legislation on sustainable energy adopted or amended by the respective governments 4.2 Extent to which sustainable energy legislation is implemented in target countries	To be defined during inception period	To be defined during inception period		
Outputs	SO1/output 1 Infrastructure for increased/Improved access to modern sustainable energy and digital services installed/enhanced	SO1/1.1 Number of beneficiaries with new access/improved access to the mini-grids built by the Action (disaggregated by type of users: commercial or private/households; if private, number of people benefitting, disaggregated by sex) SO1/1.2 Installed	Zero / 2018	Over 1 million people	Action reports	Services available thanks to the infrastructure built are affordable Technical assistance for

		renewable energy production capacity SO1/1.3 Annual energy output produced from renewable energy sources SO1/1.4 GHG emissions avoided SO1/1.5 Number of people with new access to financial services				financing applications will be provided by the EU TAF
	SO2/output 2 Strengthened evidence-base for investment in mini-grids and digital solutions	SO2/2.1 Number of investors attending workshops showcasing new evidence organised by the Action (disaggregated by sex)	Zero / 2018	Country dependent To be defined during inception period	Progress reports for the Action	
	SO3/output 3 Reimbursable schemes financing for renewable energy mini-grid projects provided	SO 3/3.1 Number of projects funded by this Action (disaggregated by country and type of beneficiary: commercial or private; if private, disaggregated by sex) SO2/3.2 Amount of funding provided by this Action (disaggregated by country)	Zero / 2018	To be defined during inception period	Progress reports for the Action	
	SO4/output 4 Improved data for tracking and monitoring African energy transitions	SO4/4.1 Status of a publication showing data for energy-related indicators and energy balances for each country	1.1. No energy data publication available online for the countries targeted (2018)	National energy data reports published online	Country reports showing data for energy-related indicators and balances	Models and data developed with the support of this Action are

		subject to data availability		To be further defined during inception period		used for development of new policies in the field of energy
	SO4/output 5 Common methodologies established for measuring on- and off-grid energy access and traditional biomass	SO4/5.1 Number of models built for each country in collaboration with national experts		Zero / 2018	Progress reports for the Action	
	SO4/output 6 Strengthened capacity of national authorities in energy data collection, modelling and statistics and evidence-based decision-making	SO4/6.1 Number of statisticians trained;(disaggregated by sex) SO5/6.2 Number of parliamentarians in partner countries whose awareness on latest findings in renewable energy and digital solutions is raised by this Action		Zero / 2018	Progress reports for the Action	

APPENDIX II: Overview of Energy-digital technologies and their potential integration in a mini-grid system

Stage	Sub-stage	Digital Technologies	Use
Project development and Pre-Installation	Site selection	Artificial Intelligence, Cloud computing	While collecting data for the installation, artificial intelligence based decision support systems can compare and propose the best among possible locations. Cloud computing can allow the easy and low cost collection of data (e.g. climatic conditions, anthropogeography) from publicly available databases and easy running of any software that has been developed from any location with access to the internet.
	Feasibility studies and surveys	Artificial Intelligence, Cloud computing, Big Data, Unmanned Vehicles,	All these technologies can facilitate the assessment of demand, the energy resource assessment as well as provide an initial design of the mini-grid. Collection of data through field surveys with appropriate questionnaires using applications like Google Forms. Drones for example can be used to collect with low cost data, which can then be fed to geographical information systems to provide meaningful conclusions, such as the setting of the grid poles, location of the various subsystems, etc.
	Project development activities	Big Data, Cloud Computing	Using data available on the internet, the mini-grid developer can easily access availability and cost of different technologies. Moreover local contracts creation process can also be facilitated.
	Establishing the institutional setup	Ubiquitous computing, eSignatures, Blockchain, Civic technology	Multiple digital technologies can be utilised for this step. Serious games can be used for capacity building, eSignatures and blockchain can be used as a backbone of the governance structure. While civic technology might be very advanced as implemented for example in Estonia, some aspects could be useful to be implemented in the community.

Stage	Sub-stage	Digital Technologies	Use
Design, procurement, installation and commissioning	Project Design	Artificial Intelligence, Cloud computing, Big Data, Internet of Things, Blockchain, Wireless Networks, Alternative Finance, Printed Electronics, 3D printing, Internet of Things	Multiple digital technologies can be used for decreasing the costs associated for the implementation of this step, but also for the actual system operation, since in this step the final design and sizing of subsystems is performed.
	Procurement	Big Data, Internet, Fintech, Alternative Finance	This step includes the procurement of equipment. Access to multiple providers globally can create competition leading to decreasing costs. Moreover as far as financing is concerned fintech and alternative finance can help tap capital providers in a non-traditional manner as for example in crowdfunding. Finally all technologies that can decrease costs directly (e.g. printed photovoltaics can have lower cost, internet of things can decrease the cost of a control and monitoring system etc.)
	Installation and commissioning	Virtual reality, augmented reality	These technologies can aid indirectly and decrease costs. The training of installers can take place in a virtual environment, while augmented reality can improve the quality of installation and commissioning as well as decrease the required time. Duration of work benefits are translated to cost savings.
Post commissioning and sustaining of the project	Operation, maintenance and monitoring	Big Data, Internet of Things, Wireless Networks, Internet, Blockchain, Artificial Intelligence, Mobile Computing, Edge Computing, eSignatures	Since this step includes the actual day to day operation of the mini-grid, it includes all the technologies needed for the technical operation (e.g. artificial intelligence, big data, internet of things, remote monitoring and control, etc.).
	Business development	Blockchain, Alternative Finance, Fintech, eSignature, Civic Technology, Mobile Computing	All the technologies related to the payments and business operation can be applied here. This includes technologies for implementing pay as you go models (wireless networks, mobile computing, eSignature etc.) as well as technologies for minimizing operational cost of the mini-grid and decreased cost operation.

ANNEX 2

of the Commission Implementing Decision on the Annual Action Programme 2018 for Sustainable Energy under the Global Public Goods and Challenges (GPGC) thematic programme, to be financed from the general budget of the Union

Action Document on policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy

ANNUAL PROGRAMME

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

1. Title/basic act/ CRIS number	**"Policy advice, technical assistance and capacity building in support of regulatory reforms and investments in sustainable energy"** financed under Development Cooperation Instrument (DCI)/GPGC, CRIS number: 2018/041-039
2. Zone benefiting from the action/location	Global The Action shall be carried out in all regions/countries eligible under the DCI, with a particular focus to energy cooperation in Sub Saharan Africa
3. Programming document	"COMMISSION IMPLEMENTING DECISION of 23.7.2014 adopting a Multiannual Indicative Programme for the Thematic Programme "Global Public Goods and Challenges" for the period 2014-2020" C(2014) 5072 final
4. SDGs	**Main SDGs** **SDG 7**: Ensure access to affordable, reliable, sustainable and modern energy for all **Secondary SDGs** **SDG 13**: Take urgent action to combat climate change and its impacts **SDG 5**: Achieve gender equality and empower all women and girls **SDG 8**: Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all

5. Sector of intervention/ thematic area	Sustainable energy/Increasing or improving access to affordable, sustainable, reliable and modern energy	DEV. Assistance: YES
6. Amounts concerned	Total estimated cost: (to be confirmed, exact level of co-financing has not been confirmed) Total amount of EU budget contribution: EUR 58 000 000 The EU contribution is for an amount of EUR 58 000 000 from the general budget of the European Union for 2018. The part of this Action under indirect management is expected to be co-financed by some EU Member States (Germany and others to be confirmed)	
7. Aid modality(ies) and implementation modality(ies)	Project Modality: Direct centralised management and indirect management - A part of this action will be implemented via direct centralised management and a service contract. - A part of this action shall be implemented in indirect management by "Deutsche Gesellschaft für Internationale Zusammenarbeit" (GIZ)	
8 a) DAC code(s)	23110 Energy policy and administrative management[1]	
b) Main Delivery Channel	40000 – Multilateral organisations	

9. Markers (from CRIS DAC form)[2]	**General policy objective**	**Not targeted**	**Significant objective**	**Principal objective**
	Participation development/good governance	☐	☑	☐
	Aid to environment	☐	☐	☑
	Gender equality and Women's and Girl's Empowerment [3]	☐	☑	☐
	Trade Development	☑	☐	☐
	Reproductive, Maternal, New born and child health	☑	☐	☐
	RIO Convention markers	**Not targeted**	**Significant objective**	**Principal objective**
	Biological diversity	☑	☐	☐
	Combat desertification	☑	☐	☐
	Climate change mitigation	☐	☐	☑
	Climate change adaptation	☑	☐	☐

[1] And related DAC codes 23181, 23182, 23183, 23210, 23220, 23230, 23240, 23250, 23260, 23270, 23410, 23620, 23630.

[2] When a marker is flagged as significant/principal objective, the action description should reflect an explicit intent to address the particular theme in the definition of objectives, results, activities and/or indicators (or of the performance / disbursement criteria, in the case of budget support).

[3] Please check the Minimum Recommended Criteria for the Gender Marker and the Handbook on the OECD-DAC Gender Equality Policy Marker. If gender equality is not targeted, please provide explanation in section 4.5.Mainstreaming.

10. Global Public Goods and Challenges (GPGC) thematic flagships	GPGC, Sustainable Energy

SUMMARY

This action will form part of the sustainable energy component of the EU's "Global Investment Technical Assistance Facility (GITAF)" and will therefore be labelled as such.

The Action aims to provide high level policy advice and technical assistance aiming at the gradual improvement of the partner countries' capacities in the energy sector, in a way that is fully integrated in pillar II of the External Investment Plan (EIP) and regional blending platforms and which will also assist to sector governance and improvement of the business environment related to pillar III of the EIP.

The Action will be implemented through two components, the first being a technical assistance component, through direct management, that will be used for the formation of a Technical Assistance Facility for sustainable energy. The Action will in parallel use indirect management to fund the newly established Global Energy Transformation Programme (GET.pro) managed by GIZ and expected to be co-funded by Germany and other Member States. The Technical Assistance to the Africa Renewable Energy initiative (AREI) will also be included in the component to be managed by GIZ also in co-funding with Germany and France. The Action aims to create powerful and flexible instruments that will ensure appropriate coordination of actions and coverage of different needs of beneficiaries towards achieving SDG7 goals.

1 CONTEXT ANALYSIS

1.1 Context Description

The crucial role of sustainable energy for social and economic development has been translated at a global level by the inclusion of a dedicated Sustainable Development Goal (SDG 7) in the 2030 Agenda for Sustainable Development adopted in 2015: ensure access to affordable, reliable, sustainable and modern energy for all by 2030.

The Paris Climate Change Agreement with its goal to limit the increase in global temperature to less than 2 degrees Celsius is considered as an international breakthrough. The need for a global energy transformation – addressing both, the SDGs and the Paris Climate Agreement – is increasingly attracting international awareness and rapidly gaining momentum. More than 190 countries have committed to Nationally Determined Contributions (NDCs) with the aim to embark on a climate friendly development path and thereby meet the targets stipulated in the Paris Climate Agreement.

The European Parliament resolution on access to energy in developing countries[4] and the *Council Conclusions on Energy and Development*[5] and *on Implementing the EU Global Strategy – strengthening synergies between EU climate and energy diplomacies and elements for priorities for 2017* [6] – call on the EU to support partner countries (in Africa in particular) to take advantage of their potential to leapfrog the traditional model and decouple economic growth from the increase of environmentally harmful emissions.

The Commission proposal on the new European Consensus on Development[7], has sustainable energy and its transformative potential at its core and sets two closely linked priorities: i) increasing access to sustainable and affordable energy and ii) tackling climate change. In line with the requirement of a strengthened Policy Coherence for Development (PCD), sustainable development policies are fully coherent with the external dimension of the EU Energy Union, notably in providing EU leadership in the global efforts to achieve the SDG 7 and contribute to the SDG 13 on Climate Action.

The Commission's Staff Working Document on sustainable energy entitled "Empowering Development - The strategic approach to sustainable energy cooperation in development" was published in 2017[8]. It describes the EU approach for cooperation and development in energy that aims at supporting developing countries towards economic growth powered by sustainable energy, to reach three interlinked objectives: i) address the lack of energy access by improved generation and interconnection capacities and governance framework; ii) increase renewable energy generation and energy efficiency; iii) contribute to the fight against climate change.

Under the 2014-2020 financial perspective, approximately EUR 3.7 billion allocated to energy cooperation for development have so far been earmarked mostly to projects focusing to a substantial increase of access to energy, especially in sub-Saharan Africa. The above goals need the development of a wide, well established mechanism to provide the expertise that the partner countries are requesting in order to proceed to the necessary actions and projects linked to achieving SDG7.

To address this profound need, the Commission in 2013 launched the Technical Assistance Facility for the Sustainable energy for all Initiative (SE4All)[9] under the Commission decision C(2012) 5436. This decision led to the signature of three geographically focused contract which together constitute the "EU's Technical Assistance Facility for sustainable energy". This facility has been one of the main instruments in preparing and assisting actions in sustainable energy since December 2013.

At the level of action by EU Member States, in Germany, BMZ's Marshall Plan with Africa and the German Ministerial Initiative "Grüne Bürgerenergie für Afrika" has put a focus on decentralised energy supply and productive use of energy as a key factor for development in

[4] European Parliament resolution of 1 December 2016 on access to energy in developing countries (2016/2885(RSP))
[5] Council Conclusions 14839/16 (28 November 2016)
[6] Council Conclusions 6981/17 (6 March 2017)
[7] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2016) 740 final, 22.11.2016
[8] http://data.consilium.europa.eu/doc/document/ST-15866-2017-INIT/en/pdf
[9] The SE4ALL initiative was officialised in the Sustainable energy goals and is completely covered by SDG7 so no reference is made to SE4ALL objectives but rather to SDG7 objectives.

Africa. The Dutch policy goal is to provide energy access to 50 million people by 2030. The Italian "Renewable Energy Solutions Network for Africa" (RES4Africa) is guided by similar objectives. Likewise, the Swedish "Special Initiative for Renewable Energy and Energy Efficiency in Sub-Saharan Africa" aims at increasing generation and access to renewable energy and energy efficiency in sub-Saharan Africa. Other related European sectoral initiatives such as the Nationally Determined Contributions (NDC) Partnership, Austria's support to the Regional Sustainable Energy Centres or the Covenant of Mayors (CoM) in sub-Saharan Africa also target inclusive sustainable development recognizing the link between energy and climate change.

The conclusions of the AU-EU summit held in November 2017 in Abidjan, within the framework of the Joint Africa-EU Strategy (JAES), set the priorities that will guide the trans-continental cooperation agenda. The 2018-2020 Abidjan Action Plan identifies a group of actions to be developed in the energy sector, which have to be addressed by the Africa-EU Energy Partnership (AEEP).

The Africa Renewable Energy initiative (AREI) is now operational, with the election of the AREI Board, the adoption in January 2018 of the Governing Instrument, workplan and budget, and the set-up of the interim Independent Delivery Unit (IDU) acting as the AREI Secretariat hosted by the African Development Bank (AfDB). The European Commission pledged support to the AREI initiative since its launch during COP 21 and has ever since been closely involved in its development, representing together with France, the 10 International Partners, as standing Observer to the Board.

1.2 **Policy Framework (Global, EU)**

Several major international initiatives and policy decisions and communications are related to this Action including, starting from the most recent: (i) "The new European Consensus on development 'Our world, our dignity, our future'[10]" in 2017; (ii) the Joint Communication to the European Parliament and the Council for a renewed impetus of the Africa-EU Partnership[11]; (iii) the Council Conclusions for "Implementing the EU Global Strategy – strengthening synergies between EU climate and energy diplomacies and elements for priorities for 2017"[12]; (iv) the European Parliament resolution on access to energy in developing countries[13]; (v) Council Conclusions on energy and development[14]; (vi) the "Paris Agreement" and the related "Nationally Determined Contributions" (NDCs)[15] along with other initiatives launched at COP21, as confirmed at COP 22, including AREI; (vii) "Transforming our world: the 2030 Agenda for Sustainable Development"[16] in 2015; (viii) "A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy"[17] in 2015; (ix) "A Stronger Role of the Private Sector in Achieving Inclusive and

[10] Joint Statement by the Council and the representatives of the governments of the Member States meeting within the Council, the European Parliament and the European Commission, 7 June 2017 (https://ec.europa.eu/europeaid/sites/devco/files/european-consensus-on-development-final-20170626_en.pdf)
[11] Joint Communication from the Commission to the European Parliament and the Council, JOIN(2017) 17 final, 4.5.2017
[12] Council Conclusions 6981/17 (6 March 2017)
[13] European Parliament resolution of 1 December 2016 on access to energy in developing countries (2016/2885(RSP))
[14] Council Conclusions 14839/16 (28 November 2016)
[15] http://unfccc.int/paris_agreement/items/9485.php
[16] Resolution adopted by the General Assembly on 25 September 2015, A/RES/70/1
[17] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, COM/2015/080 final, 25.2.2015

Sustainable Growth in Developing Countries"[18] in 2014; (x) "Sustainable Energy for All (SE4All), A Global Action Agenda, Pathways for Concerted Action towards Sustainable Energy for All[19]" in 2012; (xi) "Increasing the impact of EU Development Policy: an Agenda for Change"[20] in 2011.

The EU policy as regards technical assistance in the sustainable energy sector is expressed in the Staff Working Document on sustainable energy entitled **"Empowering Development:** Implementation of the new European Consensus on Development in energy cooperation"[21]. The Staff Working Document explicitly mentions that "the EU policy agenda on sustainable energy should actively and systematically be pursued with all partner countries, strengthening synergies and links between EU energy and climate diplomacies; using policy dialogue as the primary instrument to address governance issues, backed up by a technical assistance tool that can assist a path of sector policy reforms to pave the way for a more efficient deployment of financial instruments."

In the same document it is proposed that "The strategic objectives of a renewed Technical Assistance Facility should be sharpened so as to respond even better to the needs, creating an environment conducive for mobilising private sector stakeholders into energy investments in developing countries. This Facility would form the sustainable energy tool of the second pillar of the External Investment Plan (EIP). A technical assistance service dedicated to project development and pipeline boosting, available to financing institutions as well as private developers, can also be envisaged within this pillar, to work in synergy with the first EIP pillar and other financial instruments such as ElectriFI."

Africa is a privileged partner for the EU development cooperation. The coordination with African Partners in the energy sector is organised in the context of the Africa-EU Energy Partnership (AEEP), a long-term framework for structured political dialogue and cooperation between Africa and the EU on energy issues of strategic importance, under the framework of the Joint Africa Europe Strategy (JAES), and the Africa-EU Partnership. This momentum has been renewed during the Africa – EU summit in 2017 held in Abidjan.

Also, in 2004, the European Commission and several EU Member States set up the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF) to support the European Union in coordinating and implementing energy development cooperation. Over the years, the EUEI PDF grew along with the needs of its founders, branching out into energy strategy and policy advisory work, helping to strengthen the Africa-EU Energy Partnership through secretarial work, implementing the Renewable Energy Cooperation Programme (RECP), and supporting donor coordination between EU Member States actors in the framework of the EU Energy Initiative.

Following the pronounced need for a global energy transformation, the donors behind the EUEI PDF, developed **the Global Energy Transformation Programme - GET.pro**. Following the official end of the EUEI PDF on the 31st of March 2018, the EUEI activities

[18] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2014) 263 final, 13.5.2014

[19] www.se4all.org/sites/default/files/l/2013/09/SE4ALL-ActionAgenda.pdf

[20] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2011)637 final, 13.10.2011.

[21] http://data.consilium.europa.eu/doc/document/ST-15866-2017-INIT/en/pdf

will gradually shift into GET.pro under a new mandate and programme. As a European multi-donor platform, GET.pro will deliver on international energy and climate targets by mobilising private investments in renewable energy and supporting partner regions and countries in advancing their energy transition.

1.3 **Public Policy Analysis of the partner country/region**

The energy policy in the partner countries differs from region to region and country to country. Some countries are fossil fuel importers and rely heavily on oil and gas imports and thus try to diversify their sources, while others have abundant natural resources such as hydropower and can even be exporters. In Sub Saharan Africa (SSA), as well in Southeast Asia, energy access remains an important issue in the energy policy.
In most countries, important reforms and regulatory improvements are yet to be done but the level of advance differs widely. Whilst countries like South Africa, Uganda, Nigeria have unbundled electricity systems many SSA countries continue to provide electricity via vertically integrated utilities.
All of the countries are interested to diversify their energy sources and exploit renewable energy sources and especially solar power that is abundant in most DCI countries, however the degree and willingness to engage into the needed reforms and adjustments is very variable especially within utilities. Electricity and energy are important aspect of both the national budget and highly political when it comes to tariffs, quality of supply and power cuts and control of the national utility. These reforms are, therefore, influenced also by political and economic cycles. The adoption by most of international agreements such as the Paris Agreement and the interest shown in developing local energy sources is an encouraging signal for the relevance and subsequent ownership of this action. The action itself intends to promote reforms and encourage energy governance and transformation.

1.4 **Stakeholder analysis**

The Action will involve a large number of stakeholders either as beneficiaries or as actors depending on the specific nature of the action. The role of the Action is to create and enhance synergies, cooperation and information flow between stakeholders and actors in the energy sector.

Apart from the EU Delegations and Member State agencies that are inherently actors and managers of the different activities from the part of the EU, the main stakeholders of the Action are:

- National energy ministries, departments and agencies related to the energy sector, national and regional regulatory agencies
- Regional entities, regional economic communities, regional and national thematic agencies and research centres related to the energy sector, the African Union Commission, the NEPAD Agency and international key player's active in the energy sector
- Power utilities, public and private energy providers, electricity generation and distribution companies, rural electrification public and private actors and potential promoters and investors,
- Private stakeholders including companies and financing institutions (local or other); financial intermediaries and associations active in the energy cooperation development field, operators, and donors.

- Non-governmental organisations, civil society, and other actors in the sustainable energy value chain and governance such as consumer organisations, local communities and authorities
- Financial Institutions active in providing funding and financing projects for sustainable energy, either those that are eligible under the EU blending framework but also the local financing sector active in in sustainable energy and microfinance
- The final beneficiaries, the people in the partner countries, women and men, benefitting from a sustainable, affordable and reliable access to energy, which in particular relates to the poorer part of the population living in rural and peri-urban areas, to which the access to sustainable energy services will make a huge difference in terms of growth and poverty reduction.

1.5 **Problem analysis/priority areas for support**

Addressing the lack of access to affordable, reliable, sustainable and modern energy is one of the most critical development challenges, and prominently figures in the agenda for the fight against poverty. At the same time renewable energy generation and energy efficiency are the two most important components of the Climate Change policy.

Increasing cost-efficient access to affordable, reliable, sustainable and modern energy will strengthen the opportunities for the poorest of the planet to escape the worst impacts of poverty. Reaching the goal of global access through sustainable solutions is also expected to mitigate the worst impacts of climate change most affecting the poor. Sustainable energy is central to inclusive and equitable economic growth towards poverty eradication, inter alia through the creation of new job opportunities for all. The energy sector accounts for two thirds of CO_2 emissions, ensuring access to sustainable energy for all (SDG 7) is the key to achieve the international climate targets. At the same time, access to sustainable energy contributes to the sustainable development of cities (SDG 11).

In order to achieve these development goals, a global energy transformation towards sustainable, affordable and reliable energy is needed. The opportunities created by renewable and decentralized energy are important drivers in this transformation especially for countries importing hydrocarbons and with a percentage of the population lacking access to electricity. While significant progress has been made in some countries and regions, holistic sector transformations have not been implemented yet on a broad scale. A systemic energy transformation at the national, regional and international levels is required to unlock the potential of clean energy technologies and massively scale-up investments. While selected countries and sectors are making some progress, holistic sector transformations on a broad scale are lacking. Conducive framework conditions, such as the foundation of a successful energy transition enabling large-scale investments in clean energy technologies, are still lacking in many countries and regions. The World Bank RISE report, for instance, shows that only about one third of the 111 analysed countries have reached a reasonably advanced stage in the implementation of supportive policy and regulatory frameworks.

Change processes of this magnitude needs international joint action, strong partnerships and knowledge exchange at a fist level between EU partners and actors where the exchange is more institutionalised and at a second level between all global partners. At the European level the EU Energy Initiative (EUEI) and the Africa-EU Energy Partnership (AEEP) have already contributed to Joint European action however the potential for more streamlined coordination

still exists. The EU's technical Assistance facility has been omnipresent in various countries assisting energy sector policy reforms and providing catalytic assistance towards energy transformation. This process is still ongoing and further steps need to be taken.

As regards investments, the existing financial instruments require well-developed project proposals at a relatively advanced stage adhering to specific criteria. The complexity in the financing landscape affects locally based actors, who usually lack exposure and the know-how on how to approach sophisticated financing schemes. The private sector lacks the capacity to develop sufficient viable and financeable project proposals. While large amounts of funding are available, there are too few viable business propositions and readily financeable project proposals and too many funding proposals that do not connect efficiently with available financing opportunities.

Enhanced coordination among donors and initiatives, and structured implementation instruments are currently missing and put the attainment of these development goals at risk. Efficient instruments to increase the traction of existing initiatives and programmes are required both for the large-scale mobilization of private sector investments in decentralised renewable energy as well as for a systemic energy sector transformation at national and eventually international level.

2 RISKS AND ASSUMPTIONS

Risks	**Risk level (High/ Medium /Low)**	**Mitigating measures**
Low ownership and political commitment of countries in advancing with reforms and actions linked to renewable energy	M	The Action should be accompanied by targeted communication measures and also coordinate with parallel actions in raising awareness. The parliamentary twinning actin PARE (under another DCI programme) can definitely contribute to the above while training activities targeting electricity utilities should be increased.
Overlapping and possible duplication with other donors' initiatives under different instruments	L	The Action will include an active role of coordinating different initiatives, sustaining donor dialogue and coordination primarily with the EU Member States but also with other donors. Close cooperation and involvement of the EU Delegations for coordinating activities at local level will be ensured. Special measures and procedure will be

		put in place to avoid the risk of any duplication Inclusive meetings/workshops involving all stakeholders will be further organised.
Low capacity of government structures and of electricity utilities to integrate new ideas and to promote renewable energy investments due to high upfront cost	H	The action is meant to tackle this problem and either through advocacy or through capacity building and information tackle any wrong perception about renewables and energy transformation.
Fossil fuel prices keep falling and reduce the willingness of countries toward energy transformation	L	The energy sector will be examined as a whole including externalities focusing on the locally available nature of renewable energy resources as opposed to imported fuel.
Continuation of the policy of fuel subsidies	M	The Action will assist the policy dialogue and identify action leading toward a gradual withdrawal from fossil fuel subsidies.
Sustainability of projects in terms of operation and maintenance	L	The issue of maintenance and responsibility of operation will be central in all proposals.
Projects fail to reach viability and do not reach financial closure	L	Thorough selection of projects to ensure that only projects with an actual potential and good likelihood of success get support.
Projects take longer than anticipated to reach viability and to be taken up by financiers.	M	Thorough selection of projects, as above.
Low economic growth	L	All possible growth scenarios should be addressed and the action should be well informed as regards macroeconomic trends.
Risk aversion of private sector and financial institution	M	Close interaction and engagement with financiers to ensure that EU and partner funding criteria and expectations are well understood and that the poverty reduction and focus on the poor strategies remain in focus.
The mind set of important decision-makers in partner countries may still be biased towards the large-scale use of fossil fuel technologies and they see sustainable energy as an “add on” to energy sector development.	M	Accompany technical advice with sensitization of the socio-economic benefits of clean energy technologies.
The timeframe required to provide advisory services requested by target groups is longer than anticipated.	L	Some measures will reduce service provision time as for example a pool of highly specialized consultants, who can be mobilised quickly, will be preselected

		and ready to intervene.
AREI: The AREI services present weak capacities and insufficient resources within the Independent Delivery Unit (IDU). In addition weak ownership could make difficult to reach the ambitious AREI objectives.	M	Maintain sector policy dialogue with all institutions and political counterparts; Contribute to project preparation and pipeline boosting activities through provision of dedicated technical assistance and provide financial support and capacity building to the IDU.
Assumptions		
The eligible countries will continue to be committed to international agreements such as the Paris Agreement. The economic growth will continue especially in the African continent making the satisfaction of energy solutions and access a priority for African countries.		

3 LESSONS LEARNT AND COMPLEMENTARITY

3.1 Lessons learnt

During the last years and especially after the recognition of the energy sector as a priority for developing countries, several activities and programmes similar to those proposed in this action have been implemented by the EU.

The **EU's Technical Assistance Facility** for the SE4ALL initiative was approved as an Action document in 2012[22]. A total of 3 contracts were signed, two of them concerning Africa in 2013 and one in 2014 concerning Asia, the Eastern and Southern Neighbourhood, Latin America, Caribbean and Pacific. The TAF Sub-Saharan Africa started in December 2013 and has implemented more than 150 missions in 34 countries. Since December 2014, the TAF covering Asia, Neighbourhood, Latina America, Caribbean and Pacific carried out 20 missions in 8 countries. The 4 year long experience and feedback have overall been very positive and these contracts were judged as being very relevant, functional, and efficient by beneficiaries and other partners such as financial institutions. These contracts become a key motor of development of important energy actions in both governance, regulatory, institutional issues but also in project identification preparation and problem solving.

The lesson learned in terms of achieving both relevance and effectiveness is to fully involve EU Delegation in the conception, design and the management of the different actions while ensuring, in parallel, cross-fertilisation of knowledge and practices via the centralised management mode of the contract and its direct link to DG DEVCO thematic expertise.

Another lesson learned is that technical assistance actions in countries should go hand in hand with policy dialogue led by the EU Delegation, EU Member States present and other development partners. The full involvement of the EU Delegation will ensure a hands–on management for in-country activities, while the thematic expertise can ensure that these actions largely benefit from the knowledge and information produced from the Action in other countries.

[22] Annex I of Commission decision C(2012) 5436

For the above reason and for the reason of coherence with the EIP pillars II and III it has been decided to launch the EU's **Global Investment Technical Assistance Facility (GITAF)** that will concern all economic sectors and will result I more than 1 billion EUR of funding. The current Action will therefore be labelled as "GITAF for sustainable energy".

The Global Energy Transformation Programme (GET.pro) initiative that is proposed to be funded under this action is building on the strong track record of the **EU Energy Initiative Partnership Dialogue Facility (EUEI PDF)** and a coalition of European Member States already active in the sustainable energy sector outside Europe. The goal is to act as an effective delivery platform linking EU actors for international energy and climate goals for the implementation of European flagship initiatives in the energy and climate sector and provide visibility to joint actions of both the European Union and its Member States. Following the experiences in the existing action under EUEI PDF a new governance structure has been set up. The new programme will also aim at unlocking more EU Member State expertise and participation since in the current programme only Germany, France, Austria, The Netherlands, Italy and Finland were active.

The **Renewable Energy Cooperation Programme (RECP)** also managed by GIZ has been supporting meso-scale renewable energy investments related to renewable energy resources in the African continent. This component has proven to be very well targeted and useful for mobilising private investment and improving the structure of investments proposals. RECP was a part of EUEI PDF and its activities will be enhanced inside GET-Pro.

The existing **Africa-EU Energy Partnership (AEEP),** is the partnership entrusted by the EU and the African Union Commission to implement the energy agenda of the Joint Africa Europe Strategy (JAES), as agreed and renewed in the AU-EU summit of November 2017 in Abidjan. The AEEP focuses on institutional and capacity support to African counterparts (especially AUC) while promoting Africa-EU research cooperation and joint innovation is a key feature of the AEEP's Renewable Energy Knowledge & Innovation Symposia. The AEEP has supported the launch of new European initiatives (such as RES4Africa) in the past and is also in discussions with the Global Women's Network for the Energy Transition (GWNET) to jointly establish an African Network for Women in Energy with the objective to stimulate a gender-inclusive energy transformation in Africa.

The EU is one of the partners of the **Africa Renewable Energy Initiative (AREI**), launched in COP21, an Africa-led initiative whose main objective is to increase the continent's renewable energy capacity by at least 10 GW by 2020 and mobilise the African potential to generate at least 300 Gigawatts by 2030. It was launched by African Heads of State and Government on Climate Change (CAHOSCC) during the UN Climate Change Conference held in Paris in 2015 (COP21), and then endorsed by the African Union Commission (Summit of Kigali, July 2016, and of Addis, January 2017).

3.2 Complementarity, synergy and donor coordination

The Action, that is part of GITAF, will in itself constitute a major contribution to the pillars II and III of the EIP, and will assist actively towards the cooperation with eligible financiers in relation to blending platforms. The Action will promote synergies with existing and future initiatives under these two pillars, and will constitute also a bridge with similar sustainable energy initiatives of other global development partners. The action will help the diffusion of

information between high level dialogue between active partners and country level dialogues avoiding information gaps. The Action has the purpose of stressing the global character of the SDG7 objectives and related agreements but needs to be informed and enriched by the actions taking place at country level.

Complementarity
This Action is a necessary compliment to all ongoing activities in the broader energy and climate change sector. Activities such as the identification, formulation and financial structuring of sustainable energy projects will largely benefit from the current action.
The Action will avoid duplications of existing actions by other donors and will ensure complementarity to other support projects/programmes developed in sustainable energy and especially technical assistance in country specific programmes as well as global and regional initiatives supported by other partners. The acquired experience through ongoing cooperation actions as well as the local coordination via EU Delegations will be utilised in this direction.
More specifically synergies exist with ongoing and planned activities such as the 2018 Pan African Programme DCI/PANAF/041-576 entitled "Boost African continental integration, EU-Africa economic integration through enhanced evidence-based policy making on trade and investment" that is under approval that will also support the AEEP and influence the dialogue with the AU. Synergies also exist with different ongoing regional programmes having energy as their focus which are tackling specific issues and linked to regional integration such as the programme ROC/FED/39-384"Amélioration de la gouvernance du secteur de l'énergie en Afrique de l'Ouest".

Synergy
The Action will promote synergies in many ways such as between financiers and project promoters between national and regional and global priorities, between utilities and project promoters but especially by strengthening the links between the private sector in each country and the different public entities. It should be noted that for this Action, the EU Delegation are considered as implementers and managers of the different actions in their respective countries and regions.

Donor coordination
The Action will play a leading role in ensuring project and donor coordination initially between EU Member States and secondly between the wider donor community active in the energy sector. All technical assistance activities will help to advance efforts in the framework set by the conclusion of Joint Declarations on enhanced sustainable energy cooperation between the EU and twenty five partner countries, while being monitored together with EU Delegations and geographical services. Here below, are some other relevant activities financed by major donors such as the World Bank and the EBRD including the AREI initiative that stemmed out of COP 21 with the support of a large group of donors.

ESMAP, managed by the World Bank Group (WBG) is a partnership between the WBG and 18 partners to help low and middle-income countries reduce poverty and boost growth, through environmentally sustainable energy solutions. ESMAP's analytical and advisory services are fully integrated within the WBG's country financing and policy dialogue in the energy sector. Through the WBG, ESMAP works to accelerate the energy transition required to achieve SDG7 to ensure access to affordable, reliable, sustainable and modern energy for all. ESMAP helps to shape WBG strategies to achieve WBG Climate Change Action Plan

targets which are as follows: 28% of WBG financing with climate co-benefits; scale up 20 GW in renewable energy generation and integrate an additional 10 GW of variable renewable energy sources into grids over 5 years; mobilize $25 billion in commercial funds for clean energy; invest at least $1 billion to promote energy efficiency and resilient buildings by 2020; and, increase support to policy actions for sector reform, including for fossil fuel subsidies.

The **European Bank for Reconstruction and Development** according to which the energy sector's "economic importance, the interaction of public and private and its environmental impact" put it "at the centre of the Bank's mandate to foster the transition to market-oriented economies and its function to promote environmentally sound and sustainable development. The strategy linked to the countries under the EBRD mandate which stretches from Morocco to Mongolia identifies energy efficiency as the first and best response to this challenge and reinforces growing support for renewable energy, which will include financing both energy-generating capacity and key infrastructure such as transmission lines and backup generation. Special importance is placed in working with governments and regulators on improving energy sector regulation and putting in place stable and predictable regulatory frameworks. Over the period from January 2006 to October 2013 the EBRD invested over €8.6 billion in 172 energy sector projects.

The **German Federal Minister for Economic Cooperation and Development (BMZ)**, co-chair of the Africa-EU Energy Partnership, has launched his new initiative "Green people´s energy for Africa" as part of the Marshall Plan with Africa. Germany intends to broaden support of decentralised energy solutions in rural areas through municipalities, private investments and local cooperatives. In the next five years, the initiative plans to establish 100 people's energy partnerships with Africa that communities and individuals from Germany can get involved in directly; support eight African countries in creating a political and administrative framework for people's energy cooperatives; supply at least 500 other businesses (micro enterprises, and small and medium-sized enterprises (SMEs) – at least 50 % of them in the agricultural sector) with green energy; further strengthen vocational education and training in the energy sector with a new "Energy Training Initiative".

4 DESCRIPTION OF THE ACTION

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

The **overall objective** of this global Action is to carry out catalytic and targeted actions in order contribute to establishing the necessary conditions for achieving the SDG7 goals in sustainable energy[23] as well to contribute to the SDG13 goals related to climate action in DCI eligible countries with a focus on Africa

This global Action will contribute implicitly to all SDG7 goals but will specifically address the goal 7.a of SDG7: "7.a By 2030, enhance international cooperation to facilitate access to

[23] By 2030 ensure access to affordable, reliable, sustainable and modern energy for all, increase substantially the share of renewable energy in the global energy mix, double the global rate of improvement in energy efficiency, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

clean energy research and technologies, including renewable energy, energy efficiency, and advanced and cleaner fossil fuel technologies, and promote investment in energy infrastructure and clean energy technologies".

The Action aims through the provision of high level and targeted technical assistance to achieve the below:

SO1: Improved energy sector governance planning and regulation

The promotion and support of reformative strategies and actions in partner countries leading to energy transformation, creation of a favourable enabling environment and readiness for sustainable investments, improved regulation, improved sector governance and economic efficiency, more efficient planning, clearer and realistic strategies and plans for electrification, more efficient services, improved conditions for sustainable energy and energy efficiency deployment that lead to increased investments in sustainable energy especially by the private sector, and tackle the problem of access to affordable, reliable, sustainable and modern energy

SO2: Public and private investments and market conditions in the field of energy improved

The support the preparation, development, maturing and scale up of concrete energy investments with either private or public sector actors that lead to the mobilisation of additional investment sources and capital to operationally and financially sustainable investments benefiting the consumers while ensuring the financial sustainability of the sector, especially in underperforming countries where investments face more risks, such as the Sahel countries. In parallel, a special focus should be given to the mapping of the market situation of the wider and energy specific business environment in the eligible countries, aiming towards its improvement. The support will inter alia aim at project financial structuring and the mobilisation of funding as well as to the improvement of private sector and entrepreneurial competences.

SO3: Increased knowledge management, dissemination and cross-fertilisation of sustainable energy regulatory, technical and investment practices between stakeholders.

To ensure the constant fine-tuning and information support feeding into the overall EU policies and strategies in the sustainable energy sector in eligible countries, so as to enrich and inform the partnerships and actions in which the EU is participating with good practices and information from the field, to provide parallel knowledge management, training and capacity building services ensuring a more profound and effective utilisation and dissemination of lessons learned between different energy sector programmes in different countries and regions and to ensure an effective and diffusion of information at different levels and between different partners and stakeholders. The EU Delegations and headquarters will be the basic node of this objective along with delegated bodies in order to handle and manage the increase amount of information that will be created by the Action.

SO4: Increased partnerships and coordination between EU partners and global stakeholders toward major sustainable energy initiatives

To support the EU, the EU Member States and other key partners organisations and stakeholders that are working for the same SDG7 objectives towards establishing a wider, better coordinated, more informed and inclusive partnership, that ensures improved

cooperation and coherence of actions, better information sharing, as well as a wider mobilisation of the potential and energy related expertise of all EU Member States towards sustainable development goals. An important part of this objective is also the support to major sustainable energy initiatives in Africa and assisting important energy and climate related partnerships and processes such as the Africa Renewable Energy Initiative (AREI) and the Joint Africa-EU Strategy (JAES) leading to SDG7 and SDG13 goals.

The above objectives will be fully aligned with the objectives of the country and region sector programmes, blending facilities and form an active component of the External Investment Plan. The full involvement of EU Delegations and main partners at a country regional and global level will ensure the relevance and ownership of all activities selected under this action. The activities will be based on the overall policy background as described in the relevant EU policies in this Action document (Section 1.1.1) and in link to international organisation documents as well as national and regional strategies. The EU Delegations, the thematic and geographic units of DG DEVCO or other representatives of the European Commission as deemed relevant, will be the focal point or reference and link to local stakeholders. Contract management issues will remain the responsibility of DG DEVCO, in headquarters or in Delegation

Main activities

The main type of activities in the energy sector targeting stakeholders and beneficiaries (as per section 1.1.2) to be implemented in the course of the Action will be:

- Design, setup and provision of different forms of quality Technical Assistance and policy advice to stakeholders in the energy sector

- Identification and implementation of sector, country or regional specific studies and policy notes as aid to decision making related to the energy sector

- Design, organisation and implementation of activities of training and capacity building of stakeholders

- Support, on a case by case basis, the activities enabling the private and the public sector in the energy sector including direct technical assistance support to private and public sector for the improvement of private sector led proposals, actions and projects and in developing relevant and feasible proposals for investments especially targeted to EIP and ElectriFI, with a special focus on projects with an innovative and technology transfer and with a special priority on boosting investments in more difficult countries where private and financial sector is less inclined to be active and invest

- Development of services directed to the private sector stakeholders such market information, advocacy, pipeline development, pipeline boosting, match-making services, capacity building, coaching and advisory support and technical support to project developers, acting as an "honest broker" in the development of projects

- Support to public and other entities with a mandate to procure energy actions in developing bankable investments and in the preparation and negotiation of these actions, so as to achieve a better economic and technical result for the beneficiaries of these actions

- Undertaking specific studies leading to projects such as pre-feasibility and feasibility studies in key projects and initiatives as well as studies enabling programmes and policies

- Project management activities assisting stakeholders at early stage of projects such as definition of roadmap and required actions, assisting stakeholders on licensing and permits, preparing terms of reference for studies to be carried out by project preparation facilities, communication and assistance to project financing by financing institutions including communication activities and other kinds of assistance towards project maturing

- Knowledge management, best practice dissemination, information sharing and constant evaluation and circular feedback activities linked to the actions leading to fine-tuning of support programmes and strategies

- Communication activities linked to the sustainable energy actions of stakeholders and utilising the network of EU Delegation and partners related to the sustainable energy sector and EU related actions

- Coordination activities related to the energy sector supporting strategic partnerships and bringing together as well as informing EU member states, international partners with a link to EU funded global, regional and country programmes

These activities will be implemented in the form of several different well-designed and frequently updated programmes with a country or thematic focus and organisational structures such as a technical assistance facility. All these action will be labelled as "Global Investment Technical Assistance Facility (GITAF) for sustainable energy". All country or regional actions will be coordinated with the responsible EU Delegation in the lead. The EU Delegations and DG DEVCO Headquarter implementing services will have a distinct managing role, varying according to the local or global character of the actions. All effort should be made so that the different activities are coordinated with full involvement of the EU Delegations. The actions by implementing partners such as GIZ will focus on the same activities and specific objectives as described above and maintain a country focus that targets especially the improvement and investments in poorly performing countries as well as fragile countries.

The activities will take fully into account principles of ownership, prioritisation, donor coordination and avoidance of duplication and will be soundly based on the policies and set goals. Priority of action will be granted to countries and entities showing commitment to the strategic goals and willingness for reforms as well as on actions showing the potential scalability or actions setting a paradigm and tracing new paths. Apart from well justified ad-hoc requests, the majority of the proposed actions will be designed in a strategic manner so as to reach longer term goals of the EU policies. The centralised management of the activities will also ensure regular sharing of information with EU Member States and their agencies.

The management of the actions should be ensuring short lead times and mobilisation of the support via a swift and flexible deployment process while ensuring an optimal efficiency. The actions, whether in direct or indirect management will comprise the use of service and mixed contracts for technical assistance and other means of procurement in order to cover the cost of organisation of the necessary workshops, communication actions, and other necessary events. The actions related to the private sector will ensure that a sufficiently transparent and level

playing field for eligible and interested private sector parties exists for this kind of support and will follow the principles and criteria of the Communication "A Stronger Role of the Private Sector in Achieving Inclusive and Sustainable Growth in Developing Countries"[24]

The proposed **Get.Pro platform** to be managed by GIZ will consist of **Get.Invest** and **Get.Transform**. GET.invest feeds into creating and boosting a pipeline and increasing bankable projects for financing initiatives such as ElectriFI and the EIP and enriching the investment portfolio of European and international development finance institutions.

Get.Transform, for which the management of the AEEP will be the core function, will fit into and complement the work of other programmes and result of actors and initiatives such as e.g. REN21, IRENA, IEA, ESMAP, African Development Bank's New Deal for Africa and the World Bank activities at a more global level. The new programme will also aim at promoting a wider EU member state expertise and participation since in the current programme only Germany, France, Austria, The Netherlands, Italy and Finland were active. Participation of DG ENER in the governance is also important as DG ENER is a cosignatory of the AEEP.

The action linked to **AREI** will consist of the support of EUR 3 million to the AREI Independent Delivery Unit (IDU) activities, to support the unit tasks and activities in particular related to the swift coordination and flow of information among the AREI governance bodies and AREI supporting partners, monitoring the state of advance of various projects financed by donors, reporting and communication.

This Action shall be implemented in indirect management via pillar assessed German development agency as implementing partner already involved in supporting the AREI IDU (GIZ).

4.2 Intervention Logic

The SDG7 goals in the developing country context have to face a set of obstacles and setbacks. These obstacles are usually a poor and outdated organisation and governance of the sector, lack of uptake and experience with new technologies and lack of capacity in the administration as well as gaps in the planning documents such as electricity masterplans and renewable energy planning. As far as the involvement of the private sector is concerned, the problems are usually more complex and in most countries a comprehensive set of regulations, incentives and provisions is lacking that would give a clear enough and attractive playing field for private sector stakeholders in improving access, renewable energy an energy efficiency actions. The applied tariffs most of the time are not adapted to the promotion of viable investments in the sector and frequent fuel subsidies do not allow the fair deployment of renewable energy solutions. The procurement processes and steps vary widely between countries and are in need of standardisation and improvement so as to ensure both transparency and safeguard of the public interest. The lack of access to primary fuels and cleaner cooking solutions is also a complex problem rooted in the inertia of traditional practices and lack of suitable support to more innovative solutions.

[24] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2014) 263 final, 13.5.2014

The reasons for these obstacles are often diverse and range from entrenched position of the local utility, local producers and fuel importers to lack of understanding of the technological options and also a lack of capacity for comprehensive planning based on cost efficiency and least cost. The private sector on the other hand, despite good and innovative ideas, vision and plans that would add to SDG 7 goals, is faced with lack of capital for early stage support, uncertainty or lack of the regulatory framework and studies, volatility of the legal environment as well as access to information. It is common belief that the creation of an enabling environment for renewable energy, energy efficiency, access and private sector investment is the prerequisite for unlocking the investments necessary to realise SDG7 goals. This is especially in low income and fragile countries such as some countries in the Sahel region where the financial and private sector are avoiding to taking risks participating in energy investments. The proposed actions such as enabling investment environment and pipeline boosting should maintain a focus especially in those countries, so as to ensure making a real difference and thus ensure additionality of the action.

The current action will support the sectoral policy dialogue and sector governance reforms in the countries and regions active in the sustainable energy sector and support the energy transformation process. A custom fitted programme will be formed for countries and regions in order to improve their governance, regulatory and business facilitation gaps in their legislation and institutional setup. The different support activities targeting different stakeholders will support preparation but also implementation and monitoring of sector policy reforms and the subsequent actions such as planning for the electricity sector, market studies, identifying and supporting the necessary investments and side actions, creating and/or strengthening regulatory bodies, support the implementation of the necessary studies to support investments. The above action will go hand in hand with support to enabling private sector activity at early stage, supporting matchmaking with interested public and private financial institutions and other catalytic support to the invigoration of private investment.

EU Member States will be active partners of the overall EU efforts and the ambition is to achieve a wider mobilisation of EU Member States to actively participate in the joint energy sector actions to tap into a substantial financial, knowledge and experience resource.

Finally, the Action will support on a strategic level the activity of the AREI that is major climate initiative related to an important part of the renewable energy activity potential in the African continent.

The above action falls well within the goals of Pillar II and III of the EIP and is part of the "Global Investment Technical Assistance Facility (GITAF)" that includes also other sectors relevant to the EIP.

4.3 Mainstreaming

Aid to environment and, in parallel, fight against climate change are evidently the main aims of the Action, all activities being located in the domain of renewables and energy efficiency. Environmental risks management (e.g. forestry management, waste management, etc.) will be incorporated in all activities. Climate risk screening will be applied to interventions as appropriate and climate risk assessments will be undertaken when necessary to ensure climate-proofing of projects.

Resilience & environment are fully integrated in the proposed action while there is a clear contribution to climate change (SDG 13) as well as to inclusive growth (SDG 8).
Rights-based approach and Gender will be systematically addressed (i.e. specific attention to women and vulnerable groups, gender-disaggregated data for monitoring).
Finally, this project is expected to contribute to the fight against migration through activities that create economic growth, facilitate education, improve health infrastructure, encourage productivity through productive use of energy, create jobs, etc., which is the impact of access to energy.

4. 4 Contribution to SDGs

This Action is relevant for the 2030 Agenda. It contributes primarily to the progressive achievement of SDG 7 goals through the creation of powerful and flexible instruments that will ensure appropriate coordination of actions and coverage of different needs of beneficiaries. Moreover, the Action contributes to SDGs 8 and 5 by mainstreaming job creation and gender equality, while there is a clear contribution to climate change (SDG 13) as well.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this Action, it is not foreseen to conclude a financing agreement with any partner country.

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 72 months from the date of adoption by the Commission of this Action Document.

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.

5.3 Implementation modalities

5.3.1 Indirect management with a Member State agency – Contribution to the Global Energy Transformation Programme (GET.pro) global programme and the Africa Renewable Energy Initiative Independent Delivery unit

A part of this action will be implemented in indirect management with "Deutsche Gesellschaft für Internationale Zusammenarbeit". This implementation entails part of the activities described in Section 4.2 and more specifically, the implementation of the GET-Pro programme including support to Joint Africa Europe Strategy (JAES), and the Africa-EU Partnership and the support to the Africa Renewable Energy Initiative (AREI) independent delivery unit.
This implementation is justified because the implementing Agency has extensive experience in the sector and will also manage the contribution, to Get-Pro by Germany and other Member States.

The entrusted entity would carry out the following budget-implementation tasks: procurement of goods and services, contracting of partners for the implementation of the activities

(Memorandum of Understanding with government, Letter of Agreement with government, Performance Agreement with partners). This includes launching calls for tenders; definition of eligibility, selection and award criteria; evaluation of tenders and; award of contracts including framework contracts ; concluding and managing contracts, carrying out payments, recovering moneys due etc.

Exception to the non-retroactivity of costs: The Commission authorises for this action the eligibility of costs prior to the signature of the indirect management contracts and for actions as of 1 April 2018 in order to ensure continuity of support for the transition of former RECP and AEEP actions of EUEI to the Get.Pro actions foreseen in the present document.

5.3.2 Direct management – Technical assistance and policy advice services under a service contract

The actions to be implemented in direct management are as per the table below:

Subject in generic terms, if possible	Type (works, supplies, services)	Indicative number of contracts	Indicative trimester of launch of the procedure
Multi-country service contract, technical assistance facility for sustainable energy	Services	One	Q4 2018

The contract will be tendered with a suspensive clause subject to the adoption of the current financing decision. The call for tenders might be divided into lots referring to geographic regions or other specific actions. The current action concerns all regions/countries eligible under the DCI, with a particular focus to energy cooperation in Sub Saharan Africa

5.3.3 Changes from indirect to direct management mode due to exceptional circumstances (one alternative second option)

When the indirect management implementation modality above cannot be implemented due to circumstances outside of the Commission's control, the preferred implementation modality to replace indirect management will be direct management.

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 realization of this action impossible or exceedingly difficult.

5.5 **Indicative budget**

	EU contribution (indicative amount in EUR)	**Indicative third party contribution, in EUR (% of EU contribution)**
Direct management		
Technical Assistance Facility for sustainable energy	**40 000 000**	N/A
Indirect management –		
GET-Pro programme – Management via Delegation agreement with GIZ Support to the Africa Renewable Energy Initiative (AREI) Independent Delivery Unit (IDU)- Management via Delegation agreement with GIZ or another pillar assesses entity	**18 000 000**	(tbc)
Monitoring and Evaluation	will be covered by another decision	N.A.
Audit		N.A.
Totals	**58 000 000**	(tbc)

5.6 **Organisational set-up and responsibilities**

The current action will be monitored annually via strategic meetings. Contributing partners to the Action, managers of different components and major stakeholders will be represented. The action will be guided more regularly by technical committees in the form of meetings and/or networks in which project priorities, results of project monitoring and contractual issues will be discussed. The European Commission, represented by both DG DEVCO and DG ENERGY, will participate and DG DEVCO will chair the above meetings. The strategic meetings will approve the strategy of implementation and the strategic priorities. The technical committees will ensure coherence to the strategy and approve specific strategies and plans. The instrument will retain a certain level of flexibility in order to be able to respond rapidly to needs, requests and changes.

The implementing partners will be responsible for the actions that they manage. A suitable information sharing system will be developed for sharing documents and the modalities of sharing will be defined. The implementing partners will need to submit working plans for approval and ensure coherence to the policy objectives and coherence of the Action.

During the implementation of the Action the EU Delegations need to be fully involved. The responsibility of policy dialogue lies with the responsible EU Delegations or Commission units in cooperation with EU Member States and other donors. Suitable mechanisms will need

to be put in place by the implementing partners of the action so as to ensure constant coherence, coordination and avoidance of duplication as well as monitoring and evaluation.

5.7 **Performance and Results monitoring and reporting**

All measures necessary will be adopted to ensure a consistent monitoring of progresses through missions, fact finding reports also with the use of independent reviews and other means. Overall monitoring will be linked, whenever possible, with the Commission's monitoring activities (ROM contracts) and the EU results framework.

Monitoring will be performed at the level of each contract or delegation agreement but also at financing decision level. All contracts should embed periodic monitoring activities in their structure. A specific set of indicators and measuring system will be defined and followed from the beginning of the contract. The monitoring reports 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. 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 (results and outcomes) as measured by corresponding indicators, using as reference the log frame matrix. 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**

Having regard to the strategic character of the action, a mid-term and 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), taking into account in particular the fact that this action is expected to be continued in the future and constitutes and important and catalytic action for the sector.

The Commission may, decide to undertake such an evaluation during implementation for duly justified reasons either on its own decision. The financing of the evaluation shall be covered by another measure constituting a financing decision.

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

The evaluation reports and its relevant findings and recommendations shall be shared with the concerned main stakeholders accordingly. The implementing partners and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate,

in agreement with stakeholders, 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, indicatively in 2022. Other monitoring actions financed outside this financing agreement may be decided.

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. The financing of the audit shall be covered by another measure constituting a financing decision.

5.10 **Communication and visibility**

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU. Specific importance should be granted to ensuring communication coherence and a clear visibility message as regards the funding of the different action under this financing agreement action via EU funds.

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. The budget will be covered by another financing decision.

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

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.

6 PRE-CONDITIONS

The precondition for the implementation of the action linked to AREI in indirect management (support to the Africa Renewable Energy Initiative (AREI) Independent Delivery Unit (IDU)) is i) the adoption by the next AREI Board of Director (January 2019) of a multiannual workplan and budget with a clear set of results and objectives for IDU activities to be funded by the international partners (EU, FR and DE) and ii) the progress of the ongoing negotiations between AfDB (host of the IDU) and the EU Member States agencies (such as GIZ) regarding the specification of contractual arrangements to be used for the support to the IDU.

APPENDIX I - INDICATIVE LOGFRAME MATRIX

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 without an amendment to the financing decision. The indicative logframe matrix will evolve during the lifetime of the Action: new lines will be added for listing the activities as well as new columns for intermediary targets (milestones) when it is relevant and for reporting purpose on the achievement of results as measured by indicators.

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
Overall objective impact	To ensure access to affordable, reliable, sustainable and modern energy for all DCI eligible countries with a focus on Africa (SDG7)	Proportion of population with access to electricity Share of renewable energy in the global energy mix Energy intensity measured in terms of primary energy and GDP	To be determined in inception phase.	(targets by country and region to be determined in inception phase)	Global tracking framework and World Bank RISE annual reports	

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
Specific objective(s):	SO1: Improved energy sector governance planning and regulation	1.1 Evolution of RISE indicators per region where GITAF is active 1.2 No of regulatory authorities newly established 1.3 Total No and financial values of investments implemented in countries where business environment is supported 1.4 No of countries which applied major reforms such as unbundling, financial realignment of utilities, major IPP's	RISE report 2018 by country and for eligible countries. A baseline will be established during inception phase IEA reports 0 (2018) 0 (2018) 0 (2018)	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	Rise report by the World Bank and own report of the Action 6montn annual and final reports of project implementers, Reports by regional authorities and African Union Commission, Country reports and IFC, World Bank data idem idem	Regular reporting by countries to the World Bank and IEA. Transparency of countries as regards their data collection system

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	SO2 : Public and private investments and market conditions in the field of energy improved	2.1 % of investment of private sector in the sustainable energy sector per region 2.2 Total value in EUR and capacity in MW of investments that have at some point been supported via GITAF actions 2.3 Total No of people that have new or improved access to electricity through investments supported in some way by the GITAF	Tbd during inception phase 0 (2018) 0 (2018)	At least doubling of investments 1.5 billion /1000 MW 8 000 000 people (indicative targets, to be specified further during inception phase)	Report by the action, 6month annual and final reports of project implementers	A common and valid measurement system by implementers of the action and by donors and financing institutions that allows reporting The actions under blending are considered as common and the TA will report on the results of the whole and not on part of the project(s) assisted

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	SO3 : Increased knowledge management, dissemination and cross-fertilisation of sustainable energy regulatory, technical and investment practices between stakeholders	3.1 No of occurrences of countries and regions that have used knowledge and examples developed in other countries and regions 3.2 No of occurrences of donors and project structures that have used knowledge created from other donors and structures	0 (2018) 0 (2018)	Tbd during inception phase Tbd during inception phase	6montn annual and final reports of project implementers	A common and valid measurement system by implementers of the action and by donors and financing institutions that allows reporting

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	SO4 : Increased partnerships and coordination between EU partners and other global stakeholders toward major sustainable energy initiatives	4.1 No of member states active in the sustainable energy sector 4.2 No of occurrences of fully coordinated projects and TA activities between different donors 4.3 Total electricity generation capacity in MW of validated AREI projects	8 (2018) Tbd during inception phase Tbd during inception phase	Tbd during inception phase Tbd during inception phase Tbd during inception phase	6montn annual and final reports of project implementers Country reports by Delegations EU and EU member states meetings and reporting Knowledge sharing platforms created by the Action	The different donors agree on a sharing platform for their actions

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	O1.1 : Knowledge and data provided for energy sector dialogue	1.1.1 No of Countries assisted in which energy sector policy dialogue is being carried out (with the participation of the EU and/or its Member states)	Tbd during inception phase	Tbd during inception phase	6montn annual and final reports of project implementers	
	O1.2 : Reformative strategies, laws and regulatory related actions in partner countries developed	1.2.1 Number of reforms laws assisted at some with GITAF support	Tbd during inception phase	Tbd during inception phase	Country reports by Delegations	
	O1.3 : Planning actions such as electrification masterplans and least cost studies for renewable energy developed	1.3.1 No of major sector documents adopted such as electricity masterplans, energy policies, rural electrification strategies, renewable energy masterplans etc	Tbd during inception phase	Tbd during inception phase	EU and EU member states meetings and reporting	
	O1.4 : Capacity building action targeting stakeholders and partners	1.4.1 No of capacity building actions carried out 1.4.2 No of beneficiaries of the actions	Tbd during inception phase Tbd during inception phase	Tbd during inception phase Tbd during inception phase	Knowledge sharing platforms created by the Action	

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	O2.1 : Mapping and dissemination to private sector of the regulatory and market situation and business environment in the eligible countries, technological sectors and regions is effective O2.2 : Concrete energy investments with either private or public sector actors are supported O2.3 : Additional investment sources and capital to is mobilised O2.4 : TA is provided aiming at project financial structuring and the mobilisation of funding and improvement of private sector and entrepreneurial competences	2.1.1 No of countries in which project pipeline and investment prospectuses were realised 2.1.2 No of business and investment guides published 2.2.1 No of private sector investors supported at some point of their project 2.3.1 Total No of new projects identified in the pipeline 2.4.1 No of investments formulated and/or supported via pre-feasibility studies and feasibility studies or other specialised studies 2.4.2 Total No of projects where financial structure and matchmaking was carried out	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	6montn annual and final reports of project implementers Country reports by Delegations EU and EU member states meetings and reporting Knowledge sharing platforms created by the Action	The different donors agree on a sharing platform for their actions

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
	O3.1 : knowledge dissemination in the field of energy is facilitated among target countries	3.1.1 No of knowledge platforms created 3.1.2 No of documents disseminated and/or shared through knowledge management platforms and events 3.1.3 No of participants in information & dissemination workshops (disaggregated by sex and country) 3.1.4 No of guidelines, best practices and other similar documents published with the support of this Action	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd dring inception phase	6montn annual and final reports of project implementers Country reports by Delegations EU and EU member states meetings and reporting Knowledge sharing platforms created by the Action	The different donors agree on a sharing platform for their actions

	Intervention logic	Indicators	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
Objective(s):	O4.1 : EU partners are coordinated, mobilised and exchange frequently O4.2 : Important energy and climate related partnerships and processes such as the Africa Renewable Energy Initiative (AREI) and the Joint Africa-EU Strategy (JAES) are assisted together with partners	4.1.1.No of coordination meetings and workshops with EU member states and EU and other partners 4.1.2 No of donor matrices and profiles created or updated 4.1.3 No of national, regional or other joint coordination seminars and workshops assisted in which partners coordinate 4.2.1 No of projects validated as AREI projects	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase Tbd during inception phase	6montn annual and final reports of project implementers Country reports by Delegations EU and EU member states meetings and reporting Knowledge sharing platforms created by the Action	The different donors agree on a sharing platform for their actions

ANNEX 3

to the Commission Implementing Decision on the Annual Action Programme 2018 for Sustainable Energy under the Global Public Goods and Challenges (GPGC) thematic programme, to be financed from the general budget of the Union

Action Document for Sustainable Energy Support Measures 2018

1. Title/basic act/ CRIS number	Sustainable Energy Support Measures 2018 CRIS number: ENERGY/2018/41-118 financed under Development Cooperation Instrument			
2. Zone benefiting from the action/location	The action shall be carried out at the following location: all countries eligible for support under the thematic programme			
3. Programming document	Global Public Goods and Challenges thematic programme, Multi-annual Indicative Programme 2014-2020			
4. Sector of concentration/ thematic area	Sustainable Energy			
5. Amounts concerned	Total estimated cost: EUR 455 842 Total amount of EU budget contribution EUR 455 842			
6. Aid modality(ies) and implementation modality(ies)	Project Modality Direct management – procurement of services			
7. DAC code(s)	41010			
8. 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	☒	☐	☐
9. Global Public Goods and Challenges (GPGC) thematic flagships	NA			

SUMMARY

The overall objective is to contribute to the achievement of the objectives and specific results of the Global Public Goods and Challenges (GPGC) Thematic Programme 2014-2020 concerning the sustainable energy component. In accordance with Article 3 of Regulation (EU) No 236/2014 of the European Parliament and of the Council of 11 March 2014 laying down common rules and procedures for the implementation of the Union's instruments for financing external action, the Support Measures will be used to finance, among others, activities such as i) risk-based audits, monitoring and evaluations of projects and calls, ii) technical support for the identification and formulation of new actions, iii) studies and advisory services, organisation of and support for participation in trainings, seminars, conferences, workshops, meetings as well as production of related publications, and iv) technical support for the overall monitoring, evaluation and impact assessment of the programme.

1 CONTEXT

1.1 Sector context/Thematic area

The Support Measures of the sustainable energy area of the GPGC thematic programme are designed to cover expenditures associated with the preparation, follow up, monitoring, evaluation and audit activities related to the implementation of the GPGC and to the achievement of its objectives in the area of sustainable energy. Such measures (audits, evaluations, identifications, studies, meetings, information sessions, special events for awareness-raising, publications, training activities and any other administrative or technical assistance expenditure, including interests for late payments, etc.) contribute to the sound management of the programme, to the achievement of its expected results and objectives and to the measurement, analysis and reporting on the impact.

2 RISKS AND ASSUMPTIONS

Risks	**Risk level (High/ Medium/ Low)**	**Mitigating measures**
That there is low demand from Delegations (primarily) and headquarters for the use of support measures	L	At the beginning of each year, a letter is sent from headquarters to Delegations and geographic directorates in headquarters, announcing the availability of support measures. This will stimulate demand. Furthermore, there is always demand due to

activities		necessary audits, evaluations and technical support, etc.
A high demand for activities and the exhaustion of support measures funds	M	Experience from previous instruments shows that audits tend to use a significant part of the budget for support measures. Budget for these activities should first be looked for within the project itself. As an additional measure, support measures would only fund audits that are requested by DEVCO services, and not internal project audits.

3 LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt

The GPGC is now in its fourth year of implementation, whilst its 'predecessor' covering sustainable energy cooperation, namely the 'Environment and sustainable management of Natural Resources, including Energy, Thematic Programme (ENRTP)' ran for seven years, 2007-2013. Throughout this period, several AAP's included support measures which resulted in more than 20 contracts for studies, audits, evaluations, etc. that in turn facilitated assessing individual actions and supported the introduction of improvements in the implementation of the programme. Lessons learnt from past and current interventions were reflected in the design of the new multi-annual indicative programme under the GPGC. For the coming years, therefore, sustainable energy related activities will focus on several components including: (1) delivering access, (2) Covenant of Mayors in Sub-Saharan Africa (3) global partnerships and (4) gender and energy. These measures will support implementation of the components.

3.2 Complementarity, synergy and donor coordination

The support measures to be covered under this action will be complementary to the activities carried out under the EU Technical Assistance Facility (TAF) for sustainable energy for all, or any other technical and study facilities, existing arrangements covering monitoring and evaluation (Results Oriented Monitoring (ROM) contracts, sectoral evaluation studies, Court of Auditors audits, etc.) or to any training (aid delivery methods contract) activities.

3.3 Cross-cutting issues

Cross-cutting issues (gender, environment and climate change, governance and human rights) are at the heart of the GPGC. All measures made available through this action will help analyse, deal with or address cross-cutting issues in a way that will optimise the overall development impact of the GPGC funded Sustainable Energy activities.

4 DESCRIPTION OF THE ACTION

4.1 Objectives/results

The overall objective is to contribute to the achievement of the objectives and specific results of the Sustainable Energy component of the GPGC Thematic Programme 2014-2020 by providing support measures to EU Delegations and Headquarters services for the implementation of the programme as specified under Article 3 of Regulation No 236/2014 of the European Parliament and of the Council of 11 March 2014.

The amount allocated to this action is reserved for potential support measures specific for sustainable energy (e.g. audits, evaluations, monitoring, studies, conferences, information and publication, etc.).

The financing source is budget line 21.020702 for the year 2018.

4.2 Main activities

The Support Measures will be used to finance, among others, activities such as:

1. *Risk-based audits and evaluations*. The objective is to reinforce auditing and evaluation activities in order to ensure the proper and sound management of EU funds as well as the assessment of the impact of actions relevant to sustainable energy financed by the DCI.

2. *Technical support for the Identification and Formulation phases of new actions*. The objective is to provide support in the design of projects and programmes which requires a more in-depth analysis.

3. *Studies and advisory services, trainings, seminars, conferences, workshops, meetings and production of related publications.* The main objective of this type of activities is to support sustainable energy related activities and practitioners involved in actions funded through the DCI (particularly the GPGC) with specific analyses, with seminars, workshops and training courses, possible response strategies and good practices regarding sustainable energy and related development strategies, to ensure delivery of the results of the programme while increasing efficiency and effectiveness.

4. *Technical support for the overall monitoring, evaluation, and impact assessment of the programme*. The objective is to provide support in the overall monitoring and evaluation of the programme, which will help capitalisation of lessons learnt for further implementation of the programme in the coming years.

5. *Visibility, information and publications.* This activity will include visibility programmes covering, inter alia, publications, website and database management, information activities, media relations and media monitoring, and the production of audio-visual material.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is not foreseen to conclude a financing agreement with any partner country.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4.1 will be carried out and the corresponding contracts and agreements implemented, is 60 months from the date of adoption by the Commission of this Action Document.

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.

5.3 Implementation modalities

5.3.1.1 Procurement (direct management)

Subject in generic terms, if possible	Type (works, supplies, services)	Indicative number of contracts	Indicative trimester of launch of the procedure

1. Risk based audits and evaluations (indicative)	services	5	on demand as from 1st trimester of 2019
2. Technical support for the Identification and Formulation phases and for the overall monitoring, evaluation, impact assessment	services	1	on demand as from 1st trimester of 2019
3. Studies and advisory services, trainings, seminars, meetings, visibility and production of related publications	services	1	on demand as from 1st trimester of 2019

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, subject to the following provisions.

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 realization of this action impossible or exceedingly difficult.

5.5 Indicative budget

	EU contribution (amount in EUR)	**Indicative third party contribution, in currency identified**
5.3 – Procurement for Support measures	455 842	N.A.
Total	455 842	N.A.

5.6 Performance monitoring and reporting

The Commission will carry out technical and financial monitoring of the implementation and reporting of the activities to be carried out under this action in line with the rules and procedures applicable for direct management.
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).

5.7 Evaluation

Having regard to the nature of the action, an evaluation(s) is not expected to be carried out for this action or its components.

5.8 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.

The financing of the audit shall be covered under the budget indicated in section 5.5 above.

5.9 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 and supported under 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, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations shall be included in the respective procurement and grant contracts.

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.