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THIS ACTION IS FUNDED BY THE EUROPEAN UNION

ANNEX IV

of the Commission Implementing Decision on the financing of the Annual Action Plan for Planet (Global Challenges) for 2021

Action Document for Regional Energy Transition Outlooks (RETOS) for Africa and Latin America-Caribbean

ANNUAL PLAN

This document constitutes the annual work programme in the sense of Article 110(2) of the Financial Regulation, and action plans of Article 23(2) of NDICI-Global Europe Regulation.

1. SYNOPSIS

1.1. Action Summary Table

1. Title CRIS/OPSYS business reference Basic Act	Regional Energy Transition Outlooks (RETOS) for Africa and Latin America-Caribbean CRIS number: NDICI CHALLENGE/2021/43437 Financed under the Neighbourhood, Development and International Cooperation Instrument (NDICI-Global Europe)
2. Team Europe Initiative	No
3. Zone benefiting from the action	The action shall be carried out in Africa, Latin America and Caribbean
4. Programming document	Global Challenges Multi-annual Indicative Programme 2021-27
5. Link with relevant MIP(s) objectives/expected results	Priority Area 2: Planet Specific Objective 3: Supporting the green transition in key areas Expected result 1: Regional frameworks for renewable energy development providing a pathway for 1.5-degree world encompassed in goals of the UN 2030 Agenda and Paris Agreement.
PRIORITY AREAS AND SECTOR INFORMATION	
6. Priority Area(s), sectors	DAC code 231 - Energy Policy DAC code 160 - Other Social Infrastructure and Services (in particular employment creation, social dialogue)
7. Sustainable Development Goals (SDGs)	Main SDG: 7 – Affordable and Clean Energy Other significant SDGs (up to 9) and where appropriate, targets: 5 and 13
8 a) DAC code(s)	DAC code 231 (energy policy) – 100%
8 b) Main Delivery Channel @	International Renewable Energy Agency - 47144
9. Targets	<input type="checkbox"/> Migration <input checked="" type="checkbox"/> Climate <input checked="" type="checkbox"/> Social inclusion and Human Development

	<input type="checkbox"/> Gender <input type="checkbox"/> Biodiversity <input type="checkbox"/> Education <input type="checkbox"/> Human Rights, Democracy and Governance			
10. Markers (from DAC form)	General policy objective @	Not targeted	Significant objective	Principal objective
	Participation development/good governance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Aid to environment @	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Gender equality and women's and girl's empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Trade development	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with Disabilities @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Principal objective
	Biological diversity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Combat desertification @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change mitigation @	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Climate change adaptation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Internal markers and Tags:	Policy objectives	Not targeted	Significant objective	Principal objective
	Digitalisation @ Tags: digital connectivity digital governance digital entrepreneurship job creation digital skills/literacy digital services	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Connectivity @ Tags: transport people2people energy digital connectivity	<input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
	Migration @ (methodology for tagging under development)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reduction of Inequalities (methodology for marker and tagging under development)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Covid-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUDGET INFORMATION				
12. Amounts concerned	Budget line: BGUE-B2021-14.020241-C1-INTPA Total estimated cost: EUR 6 000 000 Total amount of EU budget contribution EUR 6 000 000			
MANAGEMENT AND IMPLEMENTATION				
13. Type of financing¹	Direct management : grants			

1.2. Summary of the Action

This Action will support the development of the Regional Energy Transition Outlooks by the International Renewable Energy Agency (IRENA). IRENA's World Energy Transitions Outlook (WETO)², which was published in June 2021, provides a pathway for a 1.5-degree world. Regional Outlooks would translate this vision into regional frameworks that could guide policy actions and investment toward resilient, renewable-centric systems, most importantly in the short-and mid-term until 2030.

The action will contribute to the achievement of the Global Challenges Multi-annual Indicative Programme 2021-27 objective, priority area 2 (Planet), specific objective 3 (*Supporting the green transition in key areas*), expected result 1 (Regional Energy Transition Outlooks).

It will contribute to SDG 7 (affordable and clean energy) and 13 (climate action), principally aiming at climate change mitigation (RIO marker) by creating an enabling environment for renewable energy. The action will contribute to SDG 5 and the GAP III, while applying the human rights-based approach.

The action will be implemented through direct management (grants).

2. RATIONALE

2.1. Context

A shift to a climate-resilient energy system as well as ensuring access to affordable, reliable, sustainable and modern energy for all are urgent global priorities encompassed in goals of the UN 2030 Agenda and supported by Paris Agreement and the European Green Deal. Meeting these objectives will require several elements: a combination of technology and innovation to advance the energy transition and improve carbon management; supportive and proactive policies; associated job creation and socio-economic improvements; fostering the opportunities for green global economy and international co-operation.

The change in global employment patterns reflects new trends in energy deployment. 20 % of jobs in the energy sector are in the renewable sector. There is also growing evidence of the wider impacts of the shift toward renewables. Notably, the rise of renewables has improved the gender balance in the energy sector, with women accounting for 32% of jobs in renewables, compared with 22% in the oil and gas³.

The Communication on the European Green Deal⁴ points out that “a power sector must be developed that is based largely on renewable sources”.

There is increasing momentum for green energy transition around the world. The United Nations Secretary General's High-Level Dialogue on Energy provides a unique space and political push for countries, regions and partners to position and act on the transition agenda. It is proposed to advance regional collaborative activities, through Regional Energy Transition Outlooks. IRENA's World Energy Transitions Outlook (WETO), based on its long-standing Remap methodology, provides a pathway for a 1.5-degree world. Regional Outlooks would translate this vision into

¹ Art. 27 NDICI

² https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jun/IRENA_World_Energy_Transitions_Outlook_2021.pdf

³ IRENA (2021), World Energy Transitions Outlook

⁴ COM/2019/640 final

regional frameworks that could guide policy actions and investment toward resilient, renewable-centric systems, most importantly in the short-and mid-term until 2030.

2.2. Problem Analysis

The report of the UN High-Level Dialogue on Energy⁵ points out that “the energy sector today, dominated by fossil fuels, accounts for 73 per cent of human-caused greenhouse gas emissions and that the global CO₂e emissions must be halved by 2030 to avoid an increasing frequency and severity of dangerous and unprecedented weather extremes, including heatwaves, devastating floods and droughts, risks to food and water security, population displacement, and loss of lives and livelihoods”. To reduce the energy sector’s CO₂ emissions a rapid transition of the energy system towards sustainable energy production is needed.

Africa has plentiful renewable energy resources and its economic potential is substantially larger than the current and projected power consumption of the continent. Bioenergy, geothermal energy, hydropower, solar and wind power account for the bulk of the resources. To date, limited use has been made of this vast potential: Africa has only 50 gigawatts (GW) of renewable capacity, mostly hydropower (36 GW).

In addition, Sub-Saharan Africa remains the region with the largest access deficit and high energy poverty: more than half of Africa’s population is still lacking access to electricity: the average access rate is at 44%, whilst access rates in the rest of the world are at 93%. In Africa, out of a total population of 1.3 billion, about 600 million are lacking access to electricity and about 850 million do not have access to clean cooking facilities. Current or planned investments are falling short to bridge the access and demand gap, which is widening along with Africa’s demographic development.

Energy poverty, one aspect of broader economic poverty, has distinct gender characteristics that disproportionately affect women and girls. Women and girls are often primarily responsible for collecting fuel and water at the community level. They rely strongly on biomass as its main energy source, which, in turn, does not feature heavily in national energy policies and priorities.

Especially looking at Africa with its immense potential for renewable energy production it is crucial to harness this potential. Looking at the renewable energy options on the regional level will provide more complete picture of different opportunities rather than looking only at the national potential. The renewable energy potential of each region needs to be analysed from a broader perspective showing the technology options including the pathways for achieving universal energy access including groups living in vulnerable situation, benefits of the regional integration as well as investment needs and benefits.

The main challenge of the energy sector in Latin America and the Caribbean is its dependence on fossil fuels and insufficient pace in exploitation of additional renewable energy resources needed to respond to the growing energy demand, expected to increase by 30% in the next decade. The region’s carbon-intensive energy mix poses numerous threats in terms of carbon emissions, local air pollution, fossil fuel supply disruptions, effects in the balance of payments and vulnerability to fossil fuel price volatility. Latin America’s dependence on hydropower also translates into vulnerabilities related to climate change impacts.

In Latin America and the Caribbean, the main source of emissions is the energy sector and transport, which account for 42% of the region’s total emissions.

In the Caribbean, the energy sector is also characterized by challenges brought by geography (small islands) and related low quality service in electricity supply, generally high electricity prices/tariffs charged to consumers and public sector capacity gaps with the need for relevant regulatory reform.

Compared to the Africa, the Latin America and Caribbean region has the largest share of modern renewables due to the extensive use of modern bioenergy across the power, heat, and transport sectors –mostly first generation ethanol and biodiesel-, in addition to the region’s reliance on hydropower to generate electricity, averaging 50% for the whole region. However, meeting the increasing energy demand with renewable energy sources in line with NDC targets, requires a remarkable increase in renewables deployment with an associated funding requirements of more than USD 176 bn. per year until 2030.

⁵ [2021-twg_1-091021.pdf \(un.org\)](#)

Both the Latin America and Caribbean region have a large untapped renewable energy potential that could improve the supply of electricity as well as its effective and efficient distribution (e.g. decentralised generation and mini-grids). However, moving toward a higher share of variable renewable energy will require a more comprehensive and integrated approach to power market design.

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

- Government, public administration and authorities at national, regional and continental level. At national level, this will include duty bearers represented by central ministries (Ministry of Energy, Ministry of Finance) and other line ministries, responsible for specific policy fields relevant for Energy Transition, mainly Environment, Energy, Mines, Labour, as well as the energy regulatory authorities. For all issues related to decent work jobs in renewable sector, access to information for affordable and clean energy, right holders will be represented trade unions, CSOs, including women's organisations and organisations representing rights of indigenous peoples and persons with disabilities.
- At the regional level it will include power pools, regional organisations dealing with energy sector such as Centres for Renewable Energy and Energy Efficiency, as well as regional regulatory organisations. On continental level the main stakeholders will be the African Union Commission (AUC), African Energy Commission (AFREC), OLADE and others.
- International Financial Institutions such as EIB, EBRD, AFD and KfW, to maximise synergies with the activities planned in the respective regions.

3. DESCRIPTION OF THE ACTION

3.1. Objectives and Expected Outputs

The Overall Objective (Impact) to which this action will contribute is to create sustainable and inclusive economic growth through energy sector transitions towards sustainable energy systems based on renewable energy, while delivering universal and affordable energy access and ensuring the alignment with the 1.5 degree pathway.

The Specific Objective (Outcome) of this action is to provide for the regions renewable energy development and gender sensitive options for the sustainable energy transition of the countries available and accessible for all, including for people living in vulnerable situations.

The Outputs to be delivered by this action are the following :

Output 1 : A total of six (6) **Regional Energy Transition Outlooks (RETOS)** a) for each of the five African regions (Northern, Western, Eastern, Central and Southern) and b) one Regional Energy Transition Outlook for the Latin America and Caribbean region. The work on RETOs will be relevant for the development of the Continental Power System Masterplan in Africa as well as for the African Single Electricity Market (AFSEM).

3.2. Indicative Activities

The Activities related to Output 1 will include:

- Development of Regional Energy Transition Outlook reports with results of the analysis and main analytical steps undertaken
- A REmap tool for each region with individual country representation.
- A sectorial gender sensitive in-depth analysis of useful energy demand technology solutions (cooking, steel making, aviation, etc.).
- A power sector expansion for each region with individual country representation.
- Power system flexibility assessment for the region, with individual country representation, using the IRENA FlexTool or similar tools.
- Regional energy policy analyses and framework
- Socio-economic assessment for each region.
- Regional finance analysis
- A set of workshops/dialogues to ensure regional ownership and participation and enhance capacities including CSOs.

The RETOs will cover all aspects of the energy system, including electricity and the key end-use sectors (buildings, industry and transport). RETOs will have both 2030 and 2050 timelines to allow for both SDG and climate agendas to be simultaneously tackled. IRENA requires energy and economy related data, planning and policy documents for its RETO analysis. Every Outlook will use the existing national plans (including NDCs) as a baseline and raises ambition in line with the priorities. For example national energy planning documents, strategy or masterplans documents that contain the future or forward-looking energy planning and its related sectors towards a certain target year, and highlight the direction or structural transformation to be undertaken to reach those targets. Regional analyses will be done by aggregation of national plans and the use of regional strategies (e.g. power pool master plans). Overarching social, economic and environmental priorities are taken into account, with the special focus on structural change and equity and inclusiveness (gender, local capabilities, access, etc). Usually, the targets and projections are supported by historical trend, together with underlying assumptions and measures undertaken to achieve those specific targets. These documents may be in the form of published masterplan, policy document, and annual reports, or established as a law or act.

Depending on different national policy documents and strategies from different ministries and agencies for general or sector-specific information, documents containing the following information are also required:

- energy demand projection for final energy consumption per sector and primary energy supply per energy carrier (for target year, its % share by sector, total energy demand and projected energy supply by energy carrier, in TJ or Mtoe)
- electricity demand projection for final energy consumption per sector (for projection period, annual % growth demand, total electricity demand and electricity demand projection by sector, in MWh)
- renewable energy targets (for target years, its % share, total installed capacity (MW), and generation (GWh) by fuel if available)
- energy efficiency targets (reduction of overall or sector specific consumption (buildings, transport, industry, residential) for target years, following a baseline year)
- climate, environmental and emission reductions targets (reduction of overall or sector specific consumption for target years, following a baseline year)
- any other relevant key or sectoral-specific targets
 - o Transport (number of EVs on the road, modal-shift, biofuel targets etc.)
 - o Residential (electrification targets, cooking-technology specific targets, heating and cooling targets etc.)
 - o Buildings (standard building energy efficiency targets or indexes etc.)
 - o Technological (phase out of certain technologies and processes, introduction and standardization of specific technologies)
- key existing/planned policy support measures for renewables, including economic incentives, regulations, other, for power generation, energy efficiency, heating and cooling and transport.
- if available, assumptions, methodology and tools used to arrive to scenarios and energy demand projected.
- If available, expansion plans to meet the projected energy demand (for electricity: in terms of generation, transmission, distribution or interconnection plans. For other carriers: development of new oil or LNG refineries and other energy transformation process)

All the data for energy projections should ideally come from national energy plans and other official sources. In absence of official information, supported by relevant data from existing studies and projections from authoritative sources from non-governmental institutions.

It is envisaged that this project will also dramatically improve data availability and accuracy which at present is woefully inadequate and hampers informed policy making.

The development of the RETOs includes the following **capacity buildings** activities, categorised by topic:

- **Policy and Regulation:** The envisaged capacity building workshops serve to also upskill officials in policy and regulation options.
- **Socioeconomics:** the results of the RETO analysis and the planned workshops will inform on regional options of the energy transition including implications for jobs, gender, education, and economic growth. This will include just transition elements to empower policy makers with tools to manage the process and support others, such as education institutions, in preparing the workforce of the future.
- **Data and energy modelling:** Through the process, IRENA undertakes country specific data-collection, resource-mapping, modelling, and analysis using established workflows on long-term energy planning and

scenario development. This is accompanied with capacity building to improve data quality and tools for the latest scenario development. IRENA's in-house planning model (also selected by the AU for the African Capital Master Plan) will remain at the disposal of countries. The RETO process will thus strengthen in-country planning capability and complement other regional efforts.

- **Regional Cooperation:** The RETO process, through its collaborative nature, promotes regional and cross sectoral cooperation, trade and integration including work to strengthen technical capacity, support policy reform initiatives and improve the convening ability of regional institutions. Given that socio-economic aspects are an integral part of the process, RETOs are a powerful tool for a just transition.

As regards capacity building, IRENA's unique approach to RETO development of continual focus country engagement and country ownership of process and result (outlined above) ensures that results of the draft RETOs are developed in partnerships with local actors and adjusted based on focus wide feedback. Results of analysis and access to detailed data is then given to the regional partner institutions and countries for use post project implementation and made available for free online on IRENA's website.

3.3. Mainstreaming

Environmental Protection & Climate Change

Outcomes of the SEA screening (relevant for budget support and strategic-level interventions)

There is no specific need to carry out a SEA for this action as the action will be a desk study of the potential of the renewable energy development in the regions of Africa / Latin America and Caribbean.

Outcomes of the EIA (Environmental Impact Assessment) screening (relevant for projects and/or specific interventions within a project)

There is no specific need to carry out an EIA for this action as the action will be a desk study of the potential of the renewable energy development in the regions of Africa / Latin America and Caribbean.

Outcome of the CRA (Climate Risk Assessment) screening (relevant for projects and/or specific interventions within a project)

There is no specific need to carry out a CRA for this action, as the action will be a desk study of the potential of the renewable energy development in the regions of Africa / Latin America and Caribbean.

The action will be indirectly benefitting to reducing greenhouse gas emissions as it supports the planning for the renewable energy development replacing fossil fuels use

Gender equality and empowerment of women and girls

As per OECD Gender DAC codes identified in section 1.1, this action is labelled as G1. At all stages gender-responsive rights-based approach principles participation, non-discrimination/equality, accountability and transparency will guide the planning and implementation of the Action and specifically the desk review. In the capacity building part every effort will be made to ensure gender balance and to prioritise the active participation of women in the energy sector.

The action contributes to the Gender Action Plan III (GAP III, 2021-2025), more specifically objective 3 "Women in all their diversity increasingly participate in and have improved access to jobs, entrepreneurship opportunities in the green economy and the circular economy" and objective 4 "Women, men, girls and boys, in all their diversity, addressing climate change in their daily lives and preserving the natural environment are supported".

Human Rights

The action will have a direct impact on the citizens and their fundamental rights to live in a safe environment. Human rights-based approach and its key principles (participation, non-discrimination, accountability and transparency) will be integrated throughout the action and different analyses and studies conducted. Particular focus will be given to inclusive policies targeting women and persons living in vulnerable situations such as indigenous peoples and persons with disabilities particularly affected by energy poverty. Economic growth of the renewable energy sector should be in line with just transition framework offering transparent discussions with trade union and OSCs suggesting concrete solutions for people living in vulnerable situations.

Disability

Action is planned as a desk study on renewable energy development potential in the regions concerned.

Democracy

Action is planned as a desk study on renewable energy development potential in the regions concerned.

Conflict sensitivity, peace and resilience

The action is looking at contributions for reaching SDG7 will have rather effects on economic, environmental aspects. It will help countries focus on the local renewable energy resources and therefore avoid dependence on imported fossil fuels and fossil fuel price fluctuations. It will increase the resilience of the countries.

Disaster Risk Reduction

The programme will integrate adaptation/DRR into the advice on the development Regional Energy Transition Outlooks.

3.4. Risks and Lessons Learnt

Category	Risks	Likelihood (High/Medium/Low)	Impact (High/Medium/Low)	Mitigating measures
External Environment	Insufficient engagement of the national governments and regional/continental institutions.	Low	High	IRENA would leverage its wide membership, strong convening power, effective international partnerships, and excellent technical expertise to deliver on the action. It would specifically draw on its partnerships with regional bodies, including AUC, AUDA/NEPAD and the wider energy community throughout project development so that input and output remain aligned with regional goals and ensure local ownership of the project.
Planning, processes and systems	The regions are defined too widely for impactful analysis	Low	High	Based on the work already carried out under IRENA's WETO, the Regional Outlooks will look at practical avenues for regions as well as countries to achieve the 1,5 degree objective
Data availability	Women and girls are left behind of data collection and various analyses	Medium	Medium	Gender experts will be involved to support specific analyses on gender issues relevant for the renewable and clean energy sector. Capacity buildings activities will include gender human rights.
Data availability	The existence and availability of energy data is limited creating a risk for the accuracy reports	Medium	Medium	First and foremost the necessity of the regional outlooks should be well explained and receive political backing by the relevant Ministries towards different stakeholders. IRENA can help filling any gaps with data coming from sources such as those from AFREC and IEA
Communication and information	Potentially limited visibility of EU due to prominent role of IRENA	Low	Low	Strategic Communication and public diplomacy activities will be covered in support measures AD. A common narrative for presenting this common action will be agreed with IRENA

Lessons Learnt:

IRENA has gained extensive experience in energy outlook analysis, based on its unique Remap methodology since 2013 (<https://www.irena.org/remap>). Over the years, this methodology was refined so today it includes techno-economic analysis, and resulting macro-economic impacts and investment and finance requirements. Outlooks are focused on both 2030 and 2050 timelines, in line with the Paris Agreement and SDG Agenda.

IRENA will use the experience gained in the following listed past activities to deliver robust RETOs:

Global Outlooks

- **World Energy Transition Outlook (2021)** (link [here](#)): The WETO is IRENA's institutional publication, released yearly (for past publications please see IRENA website, publication page [here](#)). WETO outlines a pathway for the world to achieve the Paris Agreement goals and halt the pace of climate change by transforming the global energy landscape. The report presents options to limit global temperature rise to 1.5°C and bring CO₂ emissions to net zero by 2050, offering high-level insights on technology choices, investment needs, policy framework and the socio-economic impacts of achieving a sustainable, resilient and inclusive energy future. Analysis shows that over 90% of the solutions shaping a successful outcome in 2050 involve renewable energy through direct supply, electrification, energy efficiency, renewable hydrogen and bioenergy combined with carbon capture and storage (BECCS).

Regional Outlooks

- **Renewable Energy Prospects for the European Union (2018)** (link [here](#). Summary for policy-makers [here](#)): Analysis showed various cost-effective combinations of renewable energy options to meet the 27% target and identifies additional potential to exceed this share. Tapping the additional potential to reach 34% is shown to be cost-effective, even before considering the significant economic value of the associated health and environmental benefits. Analysis demonstrated the broader socio-economic impacts — including health and environmental benefits — of higher shares of renewable energy, suggesting a total savings between EUR 45 – 114 billion by 2030, with additional investments representing an average annual contribution of 0.3% to the GDP of the European Union. Tapping the additional renewable energy potentials identified in the study would propel the EU further on a decarbonisation pathway compatible with the 'well-below' 2°C objective established in the Paris Agreement. The importance of both an EU-wide target and national-level commitments were shown as critical, as is the faster deployment of renewables, feasible with today's technology.
- **Renewable Energy Prospects for Central and South-Eastern Europe Energy Connectivity (CESEC) (2020)** (link [here](#)): Analysis showed that CESEC's energy systems could be transformed through massive uptake of cost-competitive renewable power generation, efficient electrification of heat and transport, and increased investments in sustainable bioenergy across the regional system, the report shows. Investment in renewables could give CESEC members:
 - o Savings on energy costs estimated at EUR 3.4 billion (about USD 4 billion) yearly by 2030;
 - o Benefits worth up to EUR 35 billion (USD 40 billion) with environmental and health impact factored in;
 - o Greatly improved security of energy supply;
 - o A more modern, resilient regional energy system;
 - o Closer alignment with Paris Agreement climate goals.
 - o All CESEC members possess additional, cost-effective, renewable energy potential beyond their existing plans and projections. This creates a concrete opportunity to redirect investments to start building a renewable-based energy system, the report finds.
- **Renewable Energy outlook ASEAN (2016)** (link [here](#)): The analysis showed what technologies were required for ASEAN's ambitious transition to make 23% of its primary energy renewable by 2025, compared to 9.4% in 2014. While renewable power technologies were revealed are vital, significant scale-up was shown as needed in renewable heating, cooking and transport.
- **2nd Renewable Energy Outlook for ASEAN: Towards regional energy transition (ongoing)**: At the request of ASEAN, IRENA is developing an updated and more comprehensive regional outlook to outline the energy transition 2050 pathway and its socio-economics footprint. The project assesses end-use and power sector technology options utilizing IRENA's Remap, FlexTool and macro-econometric methodologies and tools. The project covers each of the ten ASEAN Member States. The project is currently underway and is expected to be finalized in 2022.
- **Remap Central America (ongoing)**: IRENA is developing a regional outlook to outline the energy transition 2050 pathway for Central America and its socio-economic footprint. As with the ASEAN, the project assesses end-use and power sector technology options utilizing IRENA's Remap, FlexTool and macro-econometric methodologies and tools. The project covers each of the seven Central America states and includes a regional power sector analysis. The project is currently underway and is expected to be finalized in 2021.

Technology Outlooks developed by IRENA

IRENA also produces technology outlooks, results of which could contribute to RETOs. Some recent examples include:

- Innovation Outlook: Renewable Methanol (2021) (link [here](#))
- Innovation Outlook: Ocean Energy Technologies (2020) (link [here](#))
- Innovation Outlook: Thermal energy Storage (2020) (link [here](#))

3.5. The Intervention Logic

The underlying intervention logic for this action is that the Regional Energy Transition Outlooks prepared by IRENA (**output 1**) will enable the relevant regions to better plan and implement an energy transition pathway consistent with the Paris Agreement and UN 2030 Agenda (**outcome 1**). Better planning of the sustainable energy transition will in turn help creating sustainable and inclusive economic growth, while delivering universal and affordable energy access and ensuring the alignment with the 1.5 degree pathway (**impact**). The key assumption for the success of this action is a sustained/increased commitment by political and economic actors at the international and nation level to push and plan the sustainable energy transition.

Final quantification of indicator targets (cp. 3.6) will be undertaken during contracting.

3.6. Logical Framework Matrix

PROJECT MODALITY (3 levels of results / indicators / Source of Data / Assumptions - no activities)

Results	Results chain (a): Main expected results (maximum 10)	Indicators (a): (at least one indicator per expected result)	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	Create sustainable and inclusive economic growth through energy sector transitions towards sustainable energy systems based on renewable energy, while delivering universal and affordable energy access and ensuring the alignment with the 1.5 degree pathway in regions in Africa as well as Latin America and Caribbean.	1 Relative change of GHG emissions in regions 2 Relative increase of renewable energy in the energy mix	1:TBD 2:TBD	1: TBD 2: TBD	1 regional statistics, international organisations (IEA, UN, WB etc)	<i>Not applicable</i>
Outcome	Renewable energy development options for the sustainable energy transition of the countries planned and implemented in the regions and the installed renewable energy generation increased.	1.1 Number of national sustainable energy transition strategies planned and implemented 1.2 Number of strategies adopted as result of our action that are gender-sensitive / responsive	1.1: 0 1.2: 0	1.1: TBD 1.2: TBD	1.1 Regional Statistics	Political interest in and commitment to just energy transition pathway
Output related to Outcome	Regional Energy Transition Outlooks (RETO) for African regions as well as for Latin America and Caribbean are developed.	1.1.1 Number of Regional Energy Transition Outlooks	1.1.1: 0 (2022)	1.1.1: 6 (5 in Africa and 1 in LA and CAR)	1.1.1: Project reports	

4. IMPLEMENTATION ARRANGEMENTS

4.1. Financing Agreement

In order to implement this action, it is not envisaged to conclude a financing agreement.

4.2. Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements implemented, is 48 months from the date of adoption by the Commission of this Financing Decision.

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

4.3. Implementation Modalities

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures⁶.

4.3.1. Direct Management (Grants)

Grants: (direct management)

(a) Purpose of the grant(s)

The grant will contribute to create sustainable and inclusive economic growth through energy sector transitions towards sustainable energy systems based on renewable energy, while delivering universal and affordable energy access and ensuring the alignment with the 1.5 degree pathway. Based on IRENA's World Energy Transition Outlook, IRENA will prepare five Regional Energy Transition Outlooks (RETO) for each of the five African regions (Northern, Western, Eastern, Central and Southern) and one Regional Energy Transition Outlook for the Latin America and Caribbean region.

(b) Type of applicants targeted

International Renewable Energy Agency

(c) Justification of a direct grant

Under the responsibility of the Commission's authorising officer responsible, the grant may be awarded without a call for proposals to the specialised International Organisation "International Renewable Energy Agency" (IRENA).

Under the responsibility of the Commission's authorising officer responsible, the recourse to an award of a grant without a call for proposals is justified because the action has specific characteristics requiring a specific type of beneficiary for its technical competence and specialisation. IRENA has gained specific technical experience in energy outlook analysis, based on its unique Remap methodology since 2013 (<https://www.irena.org/remap>). Over the years, this methodology was refined so today it includes techno-economic analysis, and resulting macro-economic impacts and investment and finance requirements (see also 3.4 Lesson learnt).

IRENA has developed the World Energy Transition Outlook and will develop Regional Energy Transition Outlooks for the European Union as well as the Southern Neighbourhood. IRENA's unique technical competence and specialisation justify in accordance with Article 195 f) of Regulation 2018/1046 that IRENA is mandated to also develop additional Regional Energy Transition Outlooks for Africa and the Latin America and Caribbean, which will ensure in full coherence and comparability with the other regions.

⁶ www.sanctionsmap.eu. Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.

4.4. Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation).

4.5. Indicative Budget

Indicative Budget components⁷	EU contribution (amount in EUR)
Grants – total envelope under section 4.3.1 – (Output 1) six (6) Regional Energy Transition Outlooks	6 000 000
Evaluation – cf. section 5.2 Audit – cf. section 5.3	will be covered by another Decision] ⁸
Contingencies⁹	N.A
Totals	6 000 000

4.6. Organisational Set-up and Responsibilities

The Action will be monitored at European Commission's level via the **Annual Steering Committee**. The Steering Committee will discuss progress and will examine the future activities based on the work plan and discuss the way forward. The Steering Committee will be chaired by DG INTPA, which will monitor progress of the Action. The Steering Committee meetings will also be attended by representatives from other Commission DGs and services (DG NEAR, DG ENER, JRC, FPI, DG FISMA, EU delegations, DG INTPA/NEAR geographic units). The date of the annual Steering Committee meeting will be fixed two months in advance and the IRENA will prepare relevant reports, either written or oral, and act as the Secretariat to the Steering Committee (prepare agenda and minutes). If considered useful, external participants could be invited to attend one or more Steering Committee meetings, e.g. AUC or AFREC or regional organisations. The Steering Committee will meet on an annual basis and four meetings are foreseen during the Action: the first meeting of the Steering Committee will take place after the inception phase. Subsequently, the Steering Committee will meet at the end of each year of the Action.

Gender equality, human rights and human rights-based approach expertise will be ensured during the implementation of the Action as possible.

The Action will be monitored at contract and technical level via **regular and ad-hoc technical meetings** as needed. The meetings should involve DG INTPA and the IRENA representatives. These meetings may take place virtually

⁷ N.B: The final text on audit/verification depends on the outcome of ongoing discussions on pooling of funding in (one or a limited number of) Decision(s) and the subsequent financial management, i.e. for the conclusion of audit contracts and payments.

⁸ Where the action is not covered by a financing agreement (see section 4.1), but 'will be covered by another Decision' as it is unlikely that evaluation and audit contracts on this action would be concluded within N+1. These contracts have to be authorised by another Financing Decision.

⁹ Consider that contracts where no financing agreement is concluded, contingencies have to be covered by individual and legal commitments by 31 December of N+1.

(or in presence if needed) and are intended to ensure regular communication between the IRENA and the European Commission.

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action.

5. PERFORMANCE MEASUREMENT

5.1. Monitoring and Reporting

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

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

Roles and responsibilities for data collection, analysis and monitoring:

The final quantification of baselines/targets of indicators will be done at the stage of contracting.

5.2. Evaluation

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

It will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that this is one of the first EU-funded programmes to support just energy transition processes outside the EU.

The evaluation will be gender and human rights sensitive, assess gender equality and human rights results and implementation of human rights-based approach working principles (participation, non-discrimination, accountability and transparency). To this end, gender and human rights expertise should be ensured within the evaluation team.

The Commission shall inform the implementing partner at least 30 days in advance of the dates envisaged for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders following the best practice of evaluation dissemination¹⁰. 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.

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

¹⁰ See best [practice of evaluation dissemination](#)

5.3. Audit and Verifications

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

6. STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

The 2021-2027 programming cycle will adopt a new approach to pooling, programming and deploying strategic communication and public diplomacy resources.

It will remain a contractual obligation for all entities implementing EU-funded external actions to inform the relevant audiences of the Union’s support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. This obligation will continue to apply equally, regardless of whether the actions concerned are implemented by the Commission, partner countries, service providers, grant beneficiaries or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU member states.

However, action documents for specific sector programmes are in principle no longer required to include a provision for communication and visibility actions promoting the programmes concerned. These resources will instead-be consolidated in Cooperation Facilities established by support measure action documents, allowing Delegations to plan and execute multiannual strategic communication and public diplomacy actions with sufficient critical mass to be effective on a national scale.

APPENDIX REPORTING IN OPSYS

An Intervention (also generally called project/programme) is the operational entity associated to a coherent set of activities and results structured in a logical framework aiming at delivering development change or progress. Interventions are the most effective (hence optimal) entities for the operational follow-up by the Commission of its external development operations. As such, Interventions constitute the base unit for managing operational implementations, assessing performance, monitoring, evaluation, internal and external communication, reporting and aggregation.

Primary Interventions are those contracts or groups of contracts bearing reportable results and respecting the following business rule: ‘a given contract can only contribute to one primary intervention and not more than one’. An individual contract that does not produce direct reportable results and cannot be logically grouped with other result reportable contracts is considered a ‘support entities’. The addition of all primary interventions and support entities is equivalent to the full development portfolio of the Institution.

Primary Interventions are identified during the design of each action by the responsible service (Delegation or Headquarters operational Unit).

The level of the Primary Intervention is defined in the related Action Document and it is revisable; it can be a(n) (group of) action(s) or a (group of) contract(s).

Tick in the left side column one of the three possible options for the level of definition of the Primary Intervention(s) identified in this action.

In the case of ‘Group of actions’ level, add references to the present action and other action concerning the same Primary Intervention.

In the case of ‘Contract level’, add the reference to the corresponding budgetary items in point 4.5, Indicative Budget.

Option 1: Action level		
<input checked="" type="checkbox"/>	Single action	Present action: all contracts in the present action
Option 2: Group of actions level		

<input type="checkbox"/>	Group of actions	Actions reference (CRIS#/OPSYS#): <Present action> <Other action>
Option 3: Contract level		
<input type="checkbox"/>	Single Contract 1	<foreseen individual legal commitment (or contract)>
<input type="checkbox"/>	Single Contract 2	<foreseen individual legal commitment (or contract)>
<input type="checkbox"/>	Single Contract 3	<foreseen individual legal commitment (or contract)>
	(...)	
<input type="checkbox"/>	Group of contracts 1	<foreseen individual legal commitment (or contract) 1> <foreseen individual legal commitment (or contract) 2> <foreseen individual legal commitment (or contract) #>