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ANNEX

of the Commission Decision amending Decision C(2016)8576 of 13.12.2016 on the Annual Action Programme 2016 in favour of the Federal Republic of Nigeria to be financed from the 11th European Development Fund

Action Document for "EU Support to Energy Sector in Nigeria - Phase 2"

1. Title/basic act/ CRIS number	EU Support to Energy Sector in Nigeria – Phase 2 CRIS number: NG/FED/038-527 financed under the 11 th European Development Fund (EDF)
2. Zone benefiting from the action/location	West Africa, Nigeria The action shall be carried out at the following location: Federal and State levels in the Federal Republic of Nigeria
3. Programming document	National Indicative Programme between the European Union and Nigeria for the period 2014-2020 ¹
4. Sustainable Development Goals (SDGs)	<p>Main SDGs:</p> <p>SDG 7: Affordable and Clean Energy - Ensure access to affordable, reliable, sustainable and clean energy for all.</p> <p>SDG 8: Decent Work and Economic Growth - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</p> <p>Others significant SDGs:</p> <p>SDG 1: No poverty - End poverty in all its forms everywhere.</p> <p>SDG 3: Good Health and Well Being - Ensure healthy lives and promote well-being for all ages.</p> <p>SDG 4: Quality Education - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p> <p>SDG 13: Climate Action – Take urgent action to combat climate change and its impacts.</p> <p>SDG 5: Gender Equality - Achieve gender equality and empower all women and girls</p> <p>SDG 9: Industry, Innovation, and Infrastructure - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p> <p>SDG 11: Sustainable Cities and Communities Makes cities and human</p>

¹ Commission Decision on the adoption of the National Indicative Programme between the European Union and Nigeria, C(2014)3611 of 12.6.2014.

	settlements inclusive, safe, resilient and sustainable. SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels :No poverty - everywhere.			
5. Sector of intervention/ thematic area	Sustainable energy and access to electricity	DEV. Assistance: YES ²		
6. Amounts concerned	Total estimated cost: EUR 84 500 000 Total amount of EDF contribution: EUR 67 000 000 This action is co-financed in joint co-financing by: - GIZ for an estimated amount of EUR 13 000 000 - Beneficiary authorities at State level for an estimated amount of EUR 4 500 000.			
7. Aid modality(ies) and implementation modality(ies)	Project Modality Indirect management with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Department for International Development (DFID)			
8 a) DAC code(s)	23110 - Energy policy and administrative management; 23183 - Energy conservation and demand-side efficiency; 23030 – Solar energy			
b) Main Delivery Channel	11000 - Donor Government 13000 - Third Country Government (Delegated co-operation)			
9. Markers (from CRIS DAC form)	General policy objective	Not targeted	Significant objective	Principal objective
	Participation development/good governance	<input type="checkbox"/>	<input type="checkbox"/>	X
	Aid to environment	<input type="checkbox"/>	X	<input type="checkbox"/>
	Gender equality and Women's and Girl's Empowerment	<input type="checkbox"/>	X	<input type="checkbox"/>
	Trade Development	X	<input type="checkbox"/>	<input type="checkbox"/>
	Reproductive, Maternal, New born and child health	X	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction	X	<input type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with disabilities	X	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition	X	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Principal objective
	Biological diversity	X	<input type="checkbox"/>	<input type="checkbox"/>
	Combat desertification	<input type="checkbox"/>	X	<input type="checkbox"/>
	Climate change mitigation	<input type="checkbox"/>	X	<input type="checkbox"/>
	Climate change adaptation	<input type="checkbox"/>	X	<input type="checkbox"/>

² Official Development Assistance is administered with the promotion of the economic development and welfare of developing countries as its main objective.

10. Internal markers	Policy objectives	Not targeted	Significant objective	Principal objective
	Digitalisation	X		
	Migration		X	
11. Global Public Goods and Challenges (GPGC) thematic flagships	N/A			

SUMMARY

Electricity supply in Nigeria, the largest country in Sub-Saharan Africa with a population of 200 million, is significantly impaired by critical and frequent outages and power unavailability for almost half of its population.

Within the framework of the 11th European Development Fund (EDF) National Indicative Programme (NIP) 2014-2020, the EU has allocated EUR 150 000 000 to contribute in improving access to the sustainable supply of electricity, particularly for the poorest and the least developed states, especially in northern Nigeria. In line with the specific objectives identified under this sector of the NIP, this action proposes to improve the regulatory and business environment for increased private sector involvement, especially in renewable and energy efficiency projects, as well as to support the supply of renewable energy for the provision of health and education services in the north thereby empowering women and people living in vulnerable situations in this geographic area.

The 10th EDF financed the *Nigeria Energy Support Programme* (NESP), implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), to support improved access to energy through renewable energy and energy efficiency measures. While this first phase of the programme focused on solar energy, with an additional EUR 15 000 000 funding, the project activities of the NESP-2 will include further support for the establishment of an enabling framework in Nigeria for other types of renewable energy. Additionally, the support for energy efficiency, battery recycling, data collection, development of technical standards and planning can also be expanded.

The action is complementary to other EU interventions in the sector and will also contribute to the implementation of the European Green Deal, which has sustainable energy access and climate change as its fundamental pillars. The implementation is entrusted to a specialised EU Member State agency, (GIZ, with demonstrated presence and expertise in the country and sector.

This action will be implemented in a COVID-19 context and adapted as necessary for a successful completion

1 CONTEXT ANALYSIS

1.1 Context Description

The power sector in Nigeria, [REDACTED], is characterised by inadequate and unreliable capacity for production, transmission and distribution. Reasons for this situation are

the extensive use of expensive and ecologically harmful diesel generators, delays in implementing sector reforms and – until recently – very little participation by the private sector. As a result, Nigeria continues to suffer from a chronic shortage of electricity. With 200 million inhabitants, the country only has an installed electricity generation capacity of around 13 000 MW, of which current operational generation and distribution capacity is about one-third of the installed capacity at 3 810 MW. The estimated demand for electricity in Nigeria, as of the last quarter of 2019 is about 25 790 MW. Around 50% (much higher in rural areas) of the population does not have access to grid-connected electricity. In rural areas, 29% have access to electricity services (women: 13.67% and men: 15.37%³). In addition, high collection and commercial losses impact the financial viability of the privatised distribution companies.

Inequality of access to grid-connected electricity still remains an important obstacle to a sustainable economic development. Lack of energy limits opportunities, job creation, business development and access to health and education. In urban areas, where electricity access is the highest, inequalities are also important. For example, 70% of the population in Lagos lives in slum settlements and only 15% of households are connected to the grid. People living in a vulnerable situation and particularly women have less access to affordable renewable equipment. Since much of the equipment used in energy access projects is imported, such as solar panels and clean cook stoves, the cost of locally made products more than doubled during 2016-2017. This makes it more difficult for those with limited financial assets, particularly women, to access new energy technologies⁴.

The Nigerian power sector was unbundled and partially privatised in 2013, leaving only the transmission network in federal government's hands. A transitional electricity market is in force but, for most of 2016, a number of key agencies, principal officers and boards are to be appointed. Further, vandalism and unprecedented large-scale and well-orchestrated sabotage has crippled gas supply, creating chronic gas shortages at power plants. Underinvestment in maintenance and infrastructure has constrained the transmission grid. Finally, high collection and commercial losses impact the financial viability of the privatised distribution companies, as well as a tariff modelled for larger volumes of electricity. Liquidity is still a major issue, given the low generation available.

There are a number of constraints to the business climate, including difficulties to access finance, lack of standards, absence of human resources development plans, management and technical inefficiencies and inadequate pricing mechanisms. This inefficient energy sector is a constraint for the development of the country.

The resource potential for renewable energy is high, but it has so far remained largely underutilized, with the exception of large-scale hydro power and solar mini-grid pilot projects. In the field of energy efficiency too, the country still lacks a critical mass of pilot projects. Also there is a growing worry over the number of batteries reaching their end of life in the off-grid space from mini-grids and solar home systems which if not properly handled will have adverse effect on both the environment and the human population in Nigeria due to absence of policy and regulations on battery management.

³ Inter-Ministerial Committee on Renewable Energy and Energy Efficiency (2016), National Renewable Energy Actions Plans (2015-2030).

⁴ SE4ALL (2018), Levers of Change: How Global Trends Impact Gender Equality and Social Inclusion in Access to Sustainable Energy, Austria.

1.2 Policy Framework (Global, EU)

The access to secure, affordable, clean and sustainable energy services has been identified by the European Union's Agenda for Change as one of EU's priorities and a key driver for inclusive growth. The EU strongly supports the United Nations' (UN) Sustainable Development Goal 7 (SDG), on affordable and clean energy, and has been one of the leaders in the UN initiative on Sustainable Energy for All (SE4ALL) aiming at: a) ensuring universal access to modern energy services; b) doubling the share of renewable energy in the global energy mix; and c) doubling the global rate of improvement in energy efficiency. The EU's target is to help developing countries to provide access to sustainable energy services to 500 million people by 2030. These are in line with targets established within the Africa-EU Energy Partnership.

The intervention fully aligns with the objectives of the European Green Deal. Within the context of the Green Deal, the aim is to strengthen the engagement with Africa for the wider deployment and trade of sustainable and clean energy. Renewable energy and energy efficiency are key to closing the energy access gap in Africa while delivering the required reduction in CO₂. The intervention will also reinforce the efforts to implement the Africa-Europe Alliance for Sustainable Investment and Jobs, and contribute to the European External Investment Plan (EIP) pillar 3 by improving the investment climate.

At EU level, this action is fully in line with the Planet and Prosperity priorities of the *EU Consensus on Development* (2017). It stipulates that the EU shall increase cooperation with all relevant parties, including the private sector, on energy demand management, energy efficiency and clean technology development and transfer. The Action also provides for links with the *Gender Action Plan II* (2016-2020) and its objective 16: "Equal access and control over clean water, energy, transport infrastructure, and equitable engagement in their management, enjoyed by girls and women".

1.3 Public Policy Analysis of the partner country/region

The policy development on renewable energy and energy efficiency reflects the importance given to the sub-sectors by the Nigerian Government. The National Renewable Energy and Energy Efficiency policy (NREEEP) was adopted in 2015 to create an enabling environment for investments in the sector. In 2016, the government approved its "Vision 30:30:30" as a strategy document for the power sector, which calls for the installation of 30 Gigawatt by 2030 with a share of 30% renewables. However, the market system currently insufficiently takes into account the specific requirements for renewable energy and energy efficiency. A Rural Electrification Fund has been set up to promote, support and provide rural electrification programmes through public and private sector participation and develop off-grid electrification. The National Renewable Energy Action Plan 2016-2030 (NREAP) developed by the Inter-Ministerial Committee on Renewable Energy and Energy Efficiency (ICREEE) notably proposes equal access to credit for women's micro-enterprises, extension services for women on sustainable energy, collection of gender data, and incorporating gender dimensions in energy and rural development policies. However, in 2016, the Nigerian Senate voted down legislation to promote gender equality and equal opportunities.

At national level, the Federal Ministry of Power (FMP), the energy regulator (Nigeria Electricity Regulatory Commission, NERC) and the Rural Electrification Agency (REA) are committed to furthering implementation of the sector reform. The establishment of decentralised institutions for rural electrification (Rural Electrification Boards) in the states underlines the readiness to promote access to sustainable energy in rural areas. The action should support public institutions facilitating the right of all to have access to renewable, affordable and healthy energy through public awareness and public participation of civil society organizations. Equitable access to energy is a key non-discrimination issue. Access to energy is a pre-condition for economic growth and basic social services.

1.4 Stakeholder analysis

The move to unbundle and partially privatise the sector was aimed at mobilising private investment to address the massive infrastructure-financing gap. This has given the opportunity for a heterogeneous mix of stakeholders in the power sector both on and off the grid.

The stakeholders in the power sector are diverse, cutting across the public, private, donors/development financing institutions, Non-governmental Organisations (NGOs) and associations, among others. Apart from public sector players, private sector players are becoming more active in Nigeria, especially in the off-grid space as well as in the distribution end of the Nigeria electricity supply industry.

For the public sector (duty bearers), the Federal Ministry of Power (FMP) is central to power development in Nigeria, even in the framework of a privatised market. The main goal of the FMP is initiating, formulating, coordinating and implementing broad policies and programmes promoting the development of electricity generation from all sources of energy. In order to facilitate diversification of the nation's energy mix, the Ministry of Power is encouraging the use of renewable energy sources for power generation, especially in rural areas of the country.

The Nigerian Electricity Regulatory Commission (NERC) is the main sector regulator, responsible for setting tariffs and licensing. It coordinates with other power sector institutions and should be independent. However, it lacks certain specialised skills.

The Rural Electrification Agency (REA) plans electrification of rural communities in Nigeria and manages the Rural Electrification Fund, blending private and public capital to improve access for the poorest.

The Nigerian Bulk Electricity Trading Plc (NBET) purchases bulk electric power and related services from Independent Power Producers (IPPs), such as the generation companies privatised in 2013 (GENCOs). Management positions have been vacant since spring 2016, a significant weakness at a critical time, given its role in integrating large scale solar to the grid.

The Standards Organisation of Nigeria (SON) is responsible for the adoption of standards and for ensuring the compliance of all electrical appliances, while the Nigerian Electricity Management Services Agency (NEMSA) enforces technical standards and regulations, technical inspection, testing and certification of electrical installations.

Electricity is a shared responsibility between federal and state governments. The primary role of states is to create an enabling environment for better electricity supply in their distribution zones. They are further responsible for generation, transmission and distribution of electricity to rural off-grid communities and have the authority to allocate land and right of way. Some states are taking a keen interest in improving access and have benefited from capacity building regarding electrification planning but capacities are still low.

The players on the distribution side are the government owned and privately managed Transmission Company of Nigeria (TCN), which houses the System and Market Operator and is one of the weakest links in the overall grid system due to project management and investment capacity constraints, which has however diminished partially due to the involvement of Development Financial Institutions (DFIs) in TCN investments. The Distribution companies (DISCOs) are key stakeholders in the electricity supply industry in Nigeria as their day-to-day activity is responsible for the liquidity of the sector. However, the DISCOs have not lived up to their technical and financial responsibilities to ensure liquidity in the system. The industry losses are growing at a rate estimated to be EUR 100 000 000 per month and they are at the verge of bankruptcy.

Federal, state and local authorities, as well as private businesses and households, will be beneficiaries of the programme.

Civil society organizations and communities (rights holders) should be involved in the action. Civil society organizations suffer from weak organisational and resources capacities. The intervention should strengthen them to support the interests of local communities and particularly persons in vulnerable situations. Civil society organizations should be involved in awareness activities regarding renewable, affordable and healthy energy. Women's organisations (Rural Women Energy Security) should be consulted throughout the programme cycle and contribute to promote opportunities' development for women and young girls.

1.5 Problem analysis/priority areas for support

The key problem areas the action seeks to address are lack of access to electricity in disadvantaged areas, poor coordination and insufficient capacity of key agencies to design and implement effective policies, a privatisation process which still has not rendered the desired benefits and a civil society insufficiently mobilised and capable to advocate for the improvement of the sector and the interests of the people s (rights-holders).

The ongoing reform provides a basis for a sustainable transformation of the electricity sector but there is a general lack of capacity/expertise across agencies involved in the sector. That applies to regulators (NERC), the need for better implementation of standards (SON) as well as their enforcement (NEMSA), and the need for grid integration and management as well as grid code for RE (TCN and NERC). Further, distribution companies (DISCOs) lack business and organisational skills, while ministries/agencies need to clarify their mandates as well as improve sector coordination. The lack of administrative capacities for planning and implementing measures at central and state level, [REDACTED], insufficient frameworks and regulations, lack of data and lack of administrative and technical know-how in the entire power sector are a great burden on further development of the power sector value chain as a whole.

The recent focus of government policies has been on solar energy, however there is a high potential in Nigeria for hydro (the potential of large hydropower generation is estimated at 11 250MW against 1 900MW of current deployment; 2 500MW for Small Hydro versus 64.2 MW of installed capacity). There is also a lack of assessment of the feasibility of wind and biomass.

In addition, there is a need of enhancing the link between Sustainable Development Goal 7, defined as access to affordable, reliable, sustainable and modern energy for all, and SDG 8, defined as inclusive and sustainable economic growth, employment and decent work for all (Powering Job Census 2019 – Focus on Nigeria) by focusing renewable energy initiatives of productive use.

A multitude of Solar Home Systems and 10 000 Mini-grids, all making use of batteries, are planned to be deployed in the country by 2030. The lack of specific regulations and support for investments in collection, recycling and disposal of batteries and renewable energy equipment exposes the entire value-chain to severe environmental and public health risks.

Moreover, the fee collection efficiency from the population residing in peri-urban areas - 42 million estimated population served by 13% of the national electricity connections - stands at only 6%. To help address this situation, distribution companies need support to develop franchising models for rural and peri-urban area.

The expected increasing demand for renewable energy and energy efficient products (such as cook stoves) and services should provide opportunities for the development of a supply chain of local Small and Medium-Sized Enterprises (SMEs). Nonetheless, serious constraints exist for businesses in the electricity sector, such as lack of finance and technical skills.

Civil society could play a positive role in promoting the good functioning of the recently privatised sector while advocating sound policies and the interests of consumers. However, relevant civil society organisations are either not established or have very weak organisational capacity and resources to play that supporting role.

2 RISKS AND ASSUMPTIONS

Risks	Risk level (H/M/L)	Mitigating measures
Volatility of the security situation leading to reduced effectiveness and delays in the implementation of activities.	M	Careful selection of partner states, effective communication with implementing partners, communities and security agencies.
Low quality pipeline of project proposals and also of renewable energy (RE), energy efficiency (EE) and rural electrification (RrE) projects.	M	Pre-feasibility studies and building on the project pipeline and lessons learnt from first phases of NESP and Solar Nigeria. Technical assessments on potential projects will be conducted through the pre-feasibility facility.
Procurement and import challenges hinder project implementation.	L	Close collaboration with customs and the Ministry of Finance.

Possibility of corruption in the process of procurement	L	All procurement are handled by the implementing partners which are member state implementing agencies and have been pillar assessed.
Low participation and weak interest of communities and civil society organizations	L	Development of awareness campaign and capacity buildings for civil society organisations and women’s organisations Involvement and awareness of local authorities
Assumptions		
<ul style="list-style-type: none"> • The government remains committed to making RE an integral part of the energy mix • The security situation allows for the implementation of activities in the selected states • Effective governance and programme monitoring exist 		

3 LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt

Reform plans in the energy sector are usually implemented with considerable delays, often only partly and sometimes not at all, partially due to lack of implementation capacities, lack of coordination and lack of proper data. However, experience shows that professional capacity of the respective and relevant parts of the administration can be enhanced in order to improve the planning process and – with some trickle-down effect – its implementation.

The 10th European Development Fund financed the *Nigeria Energy Support Programme* (NESP), implemented by GIZ, to support improved access to energy through renewable energy (RE) and energy efficiency (EE) measures. A policy for RE and EE was adopted, feed-in-tariffs and grid codes revised, a Building Energy Efficiency Guideline drafted, organisational assessment and development conducted at National Power Training Institute of Nigeria (NAPTIN) and a clean energy training partnership network created. Pilots have been launched on Energy Management Systems, solar water heating and rural electrification, through mini-grids.

One implementation challenge has been the engagement with the Rural Electrification Agency (REA) including the operationalisation of the Rural Electrification Fund, which is administered by REA. Another relates to the budgetary constraints of federal and state governments, which means that partner contribution could not always be enforced within our projects. There is a need to strike a balance between local ownership and programme progress, which can be done by engaging beneficiaries early in programme development. Ownership has an important role to play in maintenance and adequate technical assistance needs to be provided to ensure ownership.

Finally, procurement and import of goods to Nigeria has shown to be a potential delaying factor and has to be planned for carefully. Some remedies are further operationalising the institutions involved and careful attention to the implementation of duty waivers.

The Ministry of Environment has supported an initiative that brings together Nigerian women to create clean energy enterprises and train women in the manufacturing and maintenance of clean cook stoves and solar systems (CCAC 2017).

3.2 Complementarity, synergy and donor coordination

Formalised donor coordination groups exist for both the on-grid and off-grid power sector and they meet on a quarterly basis. They allow for exchange of information regarding donor programmes as well as recent developments in the power sector and support coordinated action vis-a-vis the Federal Ministry of Power. In parallel, the Nigerian Government intends to provide more guidance and coordinate the efforts from donors.

There is ongoing coordination between the NESP-2 programme and the programmes implemented by the Agence Française de Développement (AFD) and co-funded by the European Union - the National Power Training Institute of Nigeria (NAPTIN), which is a sequel to NESP-1 and the Sustainable Use of Natural Resources and Energy Finance (SUNREF) Programme.

Cross-sectoral collaboration with all Nigeria-based programmes advising on economic development (e.g. agricultural and small businesses) implemented by GIZ is also foreseen. There is also close cooperation with USAID on structuring mini-grid tenders for the Rural Electrification Agency (REA) and the USAID Nigeria Off-Grid Energy Market Acceleration Programme (NOMAP), with which NESP works on unlocking access to digital microfinance to mini-grid end-users. In addition, coordination concerning Nigeria's Power Sector Reform Programme mainly supported by the World Bank and the African Development Bank is ensured.

The approval of the European Investment Plan (EIP) creates new opportunities for collaboration with development banks implementing the EIP on behalf of the European Union.

4 DESCRIPTION OF THE ACTION

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

The **Overall Objective/Impact** of the action is to contribute to affordable, reliable, sustainable and modern energy for all Nigerians including the most vulnerable.

The **Specific Objectives/Outcomes** are:

- To enable and foster investments in a domestic market for Renewable Energy, Energy Efficiency and affordability;
- To improve access to electricity for disadvantaged, mostly rural, communities, also in conflict affected areas.

Expected **Outputs/Results** are:

- A strengthened policy and regulatory framework which is conducive to the provision of reliable and sustainable energy;

- Implementation mechanisms for RE and EE provide access, CO2 emissions reductions and scaling up sustainable business models in the sector;
- Reduction of barriers for market and business development in the sector by strengthening technical market capacities and conducive frameworks;

Indicative activities

Component 1: Institutional and Regulatory Framework and Planning Mechanisms.

- Provide capacity building and specialised embedded technical expertise to key public policy, regulatory and implementation agencies, facilitate their coordination and the updating of key policy documents supporting rights to access to renewable and affordable energy for all including women and persons living in vulnerable situations;
- Improve system and market operator capacity for grid management and grid expansion planning;
- Conduct a stakeholder's analysis and development of participation procedure for service access;
- Conduct an investment grade energy resource mapping exercise, carry out electrification surveys and establish rural electrification plans in selected states through consultative process (civil society organizations, women's organizations);
- Support the Government in collecting data on small hydro and biomass potential;
- Support the Transmission Company of Nigeria (TCN) and DISCOs in collecting and managing data on the state of the power network;
- Support the Government in data collection to plan Generation projects;
- Support relevant stakeholder in planning potential franchise/concession areas;
- Institutional support to the Nigerian Electricity Regulatory Commission (NERC) for developing technical standards for electrification data collection and management;
- Supporting the Government in least-cost modelling (based on collected data).

Component 2: Business Models and Implementation Mechanisms for Renewable Energy

- Procure up to 2 000 MW on-grid solar Photo-Voltaic (PV) capacity in a structured bidding approach;
- Give access to power through sustainable, affordable and scalable solutions to 100 000 previously un-electrified rural people and specifically people living in vulnerable situations;
- Deploy sustainable energy solutions in the agro-processing sector allowing for 10 000 tonnes CO2 saved per annum;
- Put in place energy efficiency measures in buildings and industry leading to at least 15% energy savings and a reduction of CO2 emissions;
- Support the Government to assess the potential of Renewable Energy (RE) generation sources (i.e. wind, biomass and hydro), and in the development and implementation of a small or medium scale hydro project;
- Support the Government in establishing an enabling framework for small and medium scale hydro;

- Support DISCOs in the design and implementation of franchising tenders for rural and peri-urban areas;
- Support DISCOs to improve collection efficiency and service delivery to informal settlements in peri-urban and rural areas;
- Support the Government and private operators in the monitoring of mini-grids and franchising projects in Nigeria and the improvement of their operations, namely via demand stimulation and KeyMaker Model;
- Support NERC and other regulators like the Federal Ministry of Environment (FMEnv) or the Nigerian Electricity Management Services Agency (NEMSA) in the enforcement of regulations;
- Support the implementation of the External Investment Plan by focusing on activities that will help address regulatory issues, help in the identification of opportunities, feasibility studies and business models for investment projects that could be supported by its guarantees.

Component 3: Market Development, Standards and Services

- Strengthen capacities of quality infrastructure institutions to enforce quality standards in the Nigerian RE/EE market (standardisation, accreditation and conformity assessment bodies) and ensure harmonisation with regional and global standards;
- Foster local market development through the professionalisation of organised representation in the sector, including civil society organisations, strengthening local technical capacities and supply chains;
- Support streamlining investment entry procedures into the energy sector and importing clean energy products ;
- Support training institutions, particularly on clean energy, rights to access to renewable and affordable energy for all (and potential impact of energy access on economic development) and the development of a nation-wide certification process;
- Support the Development of Energy Service company (ESCO) models for Renewable Energy and Energy Efficiency;
- Development of a concept for Energy Efficiency at institutional level, based on the European Energy Efficiency Directive and Energy Agencies operating in EU Member States;
- Launching an electricity demand side data collection and assessment initiative in collaboration with DISCOs in order to support implementation of energy efficiency measures in buildings and Industries;
- Support to policy and standards implementation on battery recycling and safe disposal including support to private actors across the value chain

Component 4: Improving reliability of health and education services for persons particularly women and people living in vulnerable situations in three northern states through renewable energy solutions

- Provide sustainable solar and hybrid off-grid systems for education and health facilities, including schools, boarding schools, clinics and health centres, in 3 northern

states (Kaduna, Kano and Adamawa), for 650 000 beneficiaries and emissions reductions of 15 000 tonnes CO2 per annum;

- Awareness campaign for civil society organizations, rural communities and also the general public including groups living in vulnerable situations (rights to access to affordable and healthy energy, health and environmental hazards from traditional energies, impact of electricity access and economic development for persons living in vulnerable situations...);
- Promote equal gender opportunities by prioritising all girls' schools, female teacher training and maternal health facilities.

4.2 Intervention Logic

The proposed intervention follows the strategy defined in the NIP and during the identification phase, which is based on the combination of "soft" (technical assistance, specialised advice) and "hard" (actual investment in energy infrastructure) actions, and prioritising filling a gap in access to electricity in the north. This first phase of EU Support to the Energy Sector in Nigeria aims at putting in place all the "soft" elements required for the whole NIP intervention while kick-starting the investment in energy infrastructure. Subsequent phases will focus on the identification of blending operations and the further expansion of EU investment in energy infrastructure.

The action addresses the main issues identified affecting the overall sector, as described in Section 4.1. It does so by providing specialised technical assistance and embedded advisory services to key agencies and stakeholders through an integrated project managed by a well-qualified EU Member State agency, namely GIZ. This approach offers the possibility of targeting support for development and implementation of key regulatory and policy decisions in a flexible way. In doing so, this component also helps the EU position itself as a leading dialogue partner with critical government agencies and civil society stakeholders.

The action combines this policy and regulatory aspect with specific activities aiming at "kick-starting" private sector investment in the sector and which should demonstrate the feasibility of certain business models for broader scalability. In this way, the action not only addresses the need to activate a recently privatised sector but will also deliver small-scale energy generation infrastructure and support the diversification of the renewable energy mix.

4.3 Mainstreaming

The GIZ recruitment processes promote gender equality and do not discriminate against religion or ethnicity. GIZ also has developed a gender policy that addresses gender specific risks at work, and NESP has a gender focal point. NESP's data gathering activities follow a gender disaggregated approach and capacity building activities include affirmative action measures. Access to renewable, affordable and healthy energy can have a strong positive impact on women and young girls. This is why it is crucial to conduct a gender analysis during the inception phase and develop dedicated activities on economic opportunities for women and general awareness campaign of the right to access to affordable, safe and renewable energy. Gender-sensitive development strategies of the electricity sector will address poverty objectives at all levels (rights to access affordable, healthy and renewable energy service). Tenders under the programme also give the opportunity to women

entrepreneurs to receive technical assistance on project development. Finally, gender specific risks are addressed for example through its activities regarding the promotion of improved cook stoves.

The action will abide by the 'do no harm principle' to avoid unintended negative impact in terms of human rights and will be implemented following the rights-based approach working principles (all rights, participation, non-discrimination, accountability and transparency). A Rights Based Approach can help to determine what sorts of energy solutions are needed to realise poor or marginal communities' rights to clean, safe and affordable energy and their rights to health, education and water. The proposed actions will develop the capacities of the stakeholders as 'rights-holders' to claim their rights and 'duty-bearers' to meet their obligations. Private sector involved in the programme will adhere to the UN Guidelines on Business and Human rights. Civil society, including women's organisations, shall be consulted at different stages of project cycle.

4.4 Contribution to Sustainable Development Goals (SDGs)

This intervention is relevant for the United Nations 2030 Agenda for Sustainable Development. It contributes primarily to the progressive achievement of the following SDG(s) :

Main SDGs:

SDG 7: Affordable and Clean Energy - Ensure access to affordable, reliable, sustainable and clean energy for all.

SDG 8: Decent Work and Economic Growth - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Others significant SDGs:

SDG 1: No poverty - End poverty in all its forms everywhere.

SDG 3: Good Health and Well Being - Ensure healthy lives and promote well-being for all ages.

SDG 4: Quality Education - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SDG 5: Gender Equality - Achieve gender equality and empower all women and girls.

SDG 9: Industry, Innovation, and Infrastructure - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

SDG 11: Sustainable Cities and Communities Makes cities and human settlements inclusive, safe, resilient and sustainable.

SDG 13: (Climate Action Change) – Take urgent action to combat climate change and its impacts.

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4 will be carried out and the corresponding contracts and agreements implemented, is 84 months from the date of entry into force of the financing agreement.

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

5.3 Implementation of the budget support component

N/A

5.4 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 measures⁵.

5.4.1 Indirect management with Member State agencies

(A) Deutsche Gesellschaft für Internationale Zusammenarbeit - GIZ

A part of this action, related to components 1 to 3, may be implemented in indirect management with GIZ. This implementation entails hiring teams of experts to steer the programmes, in collaboration with relevant Nigerian institutions. The technical team will design and implement the activities either directly or indirectly by contracting service providers. It will write the terms of reference of the tasks, invite tenderers, report on the implementation progress and ensure the quality of the results. It will provide technical expertise to key agencies and associations, including at state level, on grid and off-grid expansion planning, clean energy products and services, as well as establish roll-out support mechanisms for RE/EE projects.

A specific team will be responsible for communication and visibility activities. This implementation is justified because of the experience and good track record of the entity in the sector in Nigeria, namely through the implementation of NESP 2, and the alignment of the project proposed with the needs of the country and NIP objectives.

The entrusted entity would carry out the following budget-implementation tasks: launching calls for tenders and for proposals where appropriate; definition of eligibility, selection and award criteria; evaluation of tenders and proposals if appropriate; award of grants and contracts; concluding and managing contracts, carrying out payments, recovering money due, among others.

(B) Department for International Development/UKAID – DFID

⁵ 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.

A part of this action, related to component 4, may be implemented in indirect management with DFID. This implementation entails hiring teams of experts to steer the programmes, in collaboration with relevant Nigerian institutions. The technical team will design and implement the activities either directly or indirectly by contracting service providers. It will write the terms of reference of the tasks, invite tenderers, report on the implementation progress and ensure the quality of the results. A specific team will be responsible for communication and visibility activities. This implementation is justified because of the alignment of the project proposed with the needs of the country and NIP objectives, as well as the experience and good track record of the entity in the sector in Nigeria, through the implementation of the Nigeria Infrastructure Advisory Facility - NIAF, and its spin-off, Solar Nigeria.

The entrusted entity would carry out the following budget-implementation tasks: launching calls for tenders and for proposals where appropriate; definition of eligibility, selection and award criteria; evaluation of tenders and proposals if appropriate; award of grants and contracts; concluding and managing contracts, carrying out payments, recovering money due, among others. Capital Expenditure will cover equipment, procurement costs, installation, logistics, testing of the solar equipment. The entity will also be responsible for Technical Support (energy audits, systems design/review, engineering oversight/sign-off, in-state stakeholder management and training, post commissioning O&M planning and state agency support, etc.), as well as Monitoring and Evaluation and Programme Management (Team leadership and oversight, financial management, donor coordination, communication).

5.5 Scope of geographical eligibility for procurement and grants

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

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

5.6 Indicative budget

	EU contribution (in EUR)	Indicative third party contribution (in EUR)
5.4.1(A) Indirect management with GIZ (Components 1, 2, 3) - indicative amounts	35 000 000	13 000 000
<i>Programme Management/ Administration</i>	<i>3 000 000</i>	<i>2 000 000</i>
<i>Component 1: Frameworks, conditions and planning</i>	<i>9 100 000</i>	<i>2 800 000</i>
<i>Component 2 RE access and EE</i>	<i>13 700 000</i>	<i>5 700 000</i>
<i>Component 3 Market and business development</i>	<i>9 200 000</i>	<i>2 500 000</i>
5.4.1(B) Indirect management with DFID - (Component 4) - indicative amounts	30 363 129	4 500 000

<i>Independent solar power systems for schools and clinics (capital expenditure)</i>	27 389 919	4 500 000
<i>Technical assistance and programme management</i>	2 973 210	0
5.9 Evaluation and 5.10 Audit	500 000	N/A
5.11 Communication and visibility	300 000	N/A
Contingencies	836 871	N/A
Total	67 000 000	17 500 000

5.7 Organisational set-up and responsibilities

In line with the current NESP-2, there will be a Programme Steering Committee (PSC) co-chaired by the Permanent Secretary of the Federal Ministry of Power as well as representatives from the European Union Delegation and the Embassy of the Federal republic of Germany based in Abuja. Other members will include representatives from GIZ and all relevant sector Ministries, Departments and Agencies (MDAs), as per the agreed composition during NESP-2. Representatives of other international development organisations and the civil society/academia may be invited on an ad-hoc basis. The PSC shall meet every six months and oversee and validate the overall direction and policy of the project.

The PSC will be complemented by two other structures:

1. The Project Management Coordination Committee (PMCC), chaired by the Ag. Director Renewable Energy and rural Power Access of the FMP and the Head of NESP of the GIZ. The PMCC shall meet monthly to track progress made and take operational decisions regarding the six-month strategy agreed during the previous PSC;
2. Technical Working Groups (TWG), each of them covering a specific topic according to the areas of activity covered by NESP (e.g. Electrification Planning, Off-grid renewable energies, On-grid Renewable Energies, Energy Efficiency etc.), and co-chaired by the FMP and another designated MDA and composed of all relevant MDAs for the specific topic. These structures shall be used as consultative bodies with the power to provide recommendations to PMCC and PSC on possible improvements in the Programme's strategy.

5.8 Performance and Results monitoring and reporting

In line with the objective the programme, an annual work-plan with full cost breakdown of key actions will be prepared by GIZ and agreed with the EU Delegation. The logical framework shall then be adapted to respond to the work-plan for effective monitoring and continuous learning and adaptation to emerging realities.

The Logical Framework provides several key indicators on which to assess progress. An initial baseline study will establish the baseline and allow for a further quantification and specification of indicators. This will be finalised within the first year of implementation.

The programme will establish a results-based monitoring system that will generate data on progress of the action on a regular basis. This data will be used for programme steering as well as for reporting on a six-month basis.

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) measured by corresponding indicators, using as reference the Logframe matrix.

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. The final report, narrative and financial, will cover the entire period of the action implementation.

The Commission may undertake additional programme monitoring visits both through its own programme manager/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).

5.9 Evaluation

Having regard to the importance and nature of the action, mid-term and final evaluations will be carried out for this action or its components via independent consultants contracted by the Commission.

A mid-term evaluation will be carried out for progress review, problem solving, and learning purposes in particular with respect to how well the project is delivering on outputs, how realistic targets are at the moment and how the assumption may have changed over time.

A final evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that there is an intention to launch a second phase of this action.

The Commission shall inform the implementing partner at least 1 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 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.

Any evaluation will be gender-sensitive, assess gender equality results and implementation of rights-based approach working principles (participation, non-discrimination, accountability and transparency) in terms of implementation of the project and project outcomes. Key

stakeholders will be involved in the monitoring process. Monitoring and evaluation will be based on indicators that are disaggregated by a minimum sex, age and location urban/rural.

Evaluation services may be contracted under a framework contract.

5.10 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.

It is foreseen that audit services may be contracted under a framework contract.

5.11 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.

For the purpose of enhancing the visibility of the EU and its contribution to this action, the Commission may sign or enter into joint declarations or statements, as part of its prerogative of budget implementation and to safeguard the financial interests of the Union.

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

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

APPENDIX - LOGFRAME MATRIX (FOR PROJECT MODALITY) ⁶

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.

No	Intervention Logic (Objectives and Results)	Indicators	Baseline ⁷	Target ⁸	Sources of Verification	Assumptions
OO/Impact	Overall objective To contribute to the use of affordable, reliable, sustainable and modern energy by all Nigerians including the most vulnerable.	<ol style="list-style-type: none"> 1. The number of rural people gaining access to electricity through sustainable and scalable solutions. 2. The value of new private investments attracted in the RE, EE and Energy Access segments 	0 0 €	100.000 6.000.000 €	<ol style="list-style-type: none"> 1. NESP progress report, Federal Ministry of Power, Rural Electrification Agency 2. NESP progress report 	
SO/outcome	Specific objectives	Specific objective indicators				
	1. Enabling and fostering investments in a domestic market for Renewable Energy and Energy Efficiency	1.1 procurement of on-grid solar PV capacity, due to improved procurement processes	0MW	500MW	1.1 Procurement documents	<ul style="list-style-type: none"> • Political stability and good governance in Nigeria are maintained. • Nigeria's economy will grow from 2021
	2. Improving access to electricity for rural communities (including conflict affected areas) particularly women and people living in vulnerable situations,	1.2 Energy savings as a result of new sustainable energy solutions in the agro-processing sector.	0 t CO2 p.a. savings	10.000 t CO2 p.a savings	1.2. Monitoring reports of EE projects supported by NESP ⁹	
		2.1The number of rural people gaining access to electricity through sustainable and scalable solutions (out of which 40 % are women)	0	100.000	2.1 One-off site Verification Missions prior to commissioning and by REA/NESP and Commissioning Reports by developers	

⁶ Indicators aligned with the relevant programming document are marked with '*' and indicators aligned to the EU Results Framework with '**'.

⁷ In some cases those might be set within the first months of implementation

⁸ expected to be achieved by the end of programme implementation

⁹ The indicator currently only includes CO2 savings from cook stoves activities. CO2 savings monitoring processes will be set up in the inception phase of the programme

		Load shedding at the transmission level due to excess frequency has been reduced.	Y	Y + X	2. Monitoring Data of the Transmission/Distribution Grids of Nigeria (System Adequacy Reports, if available, and System Operations Platform from System Operator at TCN).	
		2.1 New data on the power grid (in km) are being used for power system planning.	0	10,000	Central Data Base Management System and NESP progress report (on mapping)	
		1.3 Amount of investment (in Millions of Euros) by private sector	X	X + 6	4. Monitoring reports of solar mini-grid projects in Nigeria by REA/NESP	
		1.4 Number of regulations promoting the recycling of batteries that has been supported	0	1	5. Regulatory documents produced by Nigerian Regulators with the support from NESP	
C 1	Institutional and Regulatory Frameworks and Planning Mechanisms					
R 1	1. Better framework and pre-conditions in the RE/EE sector have been supported to enable policy making, coherent electrification planning and to foster investment					<ul style="list-style-type: none"> • Corruption in the Infrastructure Sector is contained. • Security situation does not hinder implementation of activities. • The Federal Government of Nigeria remains committed to the promotion of renewable energy, energy efficiency and rural electrification and approves

						<p>relevant promotion strategies / instruments as well as provides funding for these.</p> <ul style="list-style-type: none"> The Federal and State institutions (e.g. FMPWH, NERC, etc.) are fully committed to foster the development of RE and EE.
R 1.1.	1.1. Key stakeholders on federal and state level in the sector are able to collect and assess data and thus monitor the implementation of policies	1.1.1. A number of stakeholders (e.g. FMPWH, TCN, REA, states) use synchronized data management systems for their planning and decision-making processes	0	3	Data Systems, Handbooks, Protocols regarding Coordination and use, Surveys of key staff	Government is committed to adopting and enforcing the policies, regulations and standards developed with the support of the project.
		1.1.2. Number of sites surveyed in order to support Government (FMP and REA) in collecting data on mini-grid potential.	0	200	Central Data Base Management System	Government continues to commit budgetary and human resources to the promotion and expansion of EE and RE.
		1.1.3. Number of km of new data collected in order to support TCN and DISCO's or franchisees in planning.	X	X + 10,000	Central Data Base Management System, network locations	Nigeria Electricity Regulatory Commission (NERC) is provided with the investment and political commitment to carry out its mandate.
		1.1.4. Number of Government Generation projects will be supported with data collection/management/modelling.	0	1	Satellite Imagery	Government is committed to aligning RE/EE agenda with climate targets
		1.1.5. Number of States for which Government is supported in least cost off-grid modelling (based on collected data).	0	10	Least cost Plan	
		1.1.6. Number of mini-grids projects being monitored and having received support regarding improved operations, namely via demand stimulation and KeyMaker Model.	0	15	Mini-grid monitoring platform and demand stimulation reports	
		1.1.7. Number of stove manufacturers are being monitored.	0	2	Monitoring reports	
		1.1.8. Number of project developers who have received support regarding advanced project development (including surveys).	0	5	Materials developed for trainings	

		1.1.9. Methodology to help the Government assess renewable energy potentials in Nigeria (incl. hydro, wind and biomass) has been developed.	0	1	Documents indicating methodology developed	
		1.1.10. Number of improved instruments or new processes that have been developed for NERC to perform according to its mandate by NERC.	0	3	Analysis of approved bills and regulations, Surveys of key staff.	
		1.1.11. Number of technical standards electrification data collection and management for which NERC has been supported.	0	1	Standards	
		1.1.12. Number of regulators supported in the enforcement of regulations.	0	3	Reports on support to the enforcement of regulations	
		1.1.13. Number of regulations promoting small and medium scale hydro supported.	0	1	Regulations	
		1.1.14. Number of battery recycling, treatment and safe disposal policies developed.	0	1	Policy	
		1.1.15. Number of documents harmonising RE/EE agenda with climate targets	0	1	Harmonisation document	
R 1.2	1.2. Procedures and planning methods are improved	1.2.1. NBET, NERC or TCN have been supported with the development of standards or concepts for the optimised integration of RE.	0	3	Documents on new processes, Dispatch Records of Power Plants, Re-Dispatch Records of TCN, Surveys of key staff,	
C 2	Business Models and Implementation Mechanisms					
R 2	2. Scaling up of sustainable RE and EE business models has been supported					FX restrictions or a further devaluation of the Naira do not limit import of RE equipment or render financial models of projects unsustainable
R 2.1	1.1. RE procurement is improved	1.1.1. Competitive process for the procurement of on-grid RE for the mandated institutions has been supported.	0	1	Documentation of NBET/NERC on procurement process	<ul style="list-style-type: none"> Conditions for private sectors to invest in EE/RE are conducive

		1.1.2. Competitive process for the procurement of small and medium scale hydro is supported for the mandated institutions	0	1	Tender documentation	<ul style="list-style-type: none"> and attractive. Investment rules and regulations do not impose unnecessary hurdles on private investment. Security situation does not hinder implementation of activities.
		1.1.3. Competitive process for the procurements of improved cookstoves by the mandated institutions has been supported	0	1	Tender documentation	
R 2.2	2.2. DISCO performance is improved	2.2.1. Number of DISCOs that have been supported to develop new, technically and economically sound business models	0	2	Documentation of business plans developed for 2 DISCOs	
		2.2.2. Number of tenders by a DISCOs to select a franchisee for an identified rural or peri-urban feeder has been supported.	0	1	Tender documentation	
		2.2.3. .				
R 2.3.	2.3. Off-grid and on-grid energy access including financing options has improved	2.3.1. Number of mini-grids that have been implemented that have combined public and private funds	0	20	Mini-Grid Business Plans, Documentation on Project Implementation Test Reports of Cook stoves, Field Surveys	
		2.3.2. Number of SMEs or social institutions that use improved, emission-reduced cook stoves	0	400	Test Reports of Cook stoves, Field Surveys	
		2.3.3. Number of large solar off-grid mini-grid project pipelines (min. of 50 mini-grids per pipeline) developed with mini-grid developers (selected under Mini-grid Acceleration Scheme).	0	1	Mini-Grid Business Plans	
		2.3.4. Number of large solar interconnected mini-grid project pipelines (min. of 50 mini-grids per pipeline) developed with mini-grid developers (selected under the Interconnected Mini-grid Acceleration Scheme) and/or DISCOs	0	1	Mini-Grid Business Plans	
		2.3.5. Number of projects for small and medium scale hydro projects developed with the Government.	0	1	Hydro business plan	
		2.3.6. Number of projects for small or medium scale hydropower has been implemented by a private	0	1	Hydro business plan, Implementation documents	

		developer selected under an open competitive tender with the support from the Government (and possibly a DFI).			
		2.3.7. Number of pipelines of medium scale on-grid solar projects (min. of 50 MW) developed by the mandate institutions.	0	1	On-grid solar business plan
		2.3.8. Number of pipelines (min. of 2,000 stoves) of improved household/institutional stoves has been implemented by stove manufacturers selected under Nigerian Institutional Clean Cookstove Accelerator.	0	1	Stove business plan
		2.3.9. Number of risk mitigation measures for mini-grid financing (e.g. Credit Guarantee Mechanism) established.	0	1	Documentation used to develop the risk mitigation mechanism
		2.3.10. Number of financial products to finance improved cook stoves has been developed.	0	1	Documentation used to develop the financial product
R 2.4	2.4. The usage of Energy Efficiency measures has been supported	2.4.1. Number of EE measures in the buildings and industrial sector (with at least 15per cent energy savings) that have been supported	X	X+10	Site Reports, Audit Reports
		2.4.2. Number of additional EE measures in the buildings and industrial sector (with at least 15 per cent energy savings) that have been supported	X	X+10	Site Reports, Audit Reports
		2.4.3. Number of additional states where energy efficiency measures from the National Building Energy Efficiency Code have been supported in construction sites	1	4	Construction Reports based on Guidelines from National Building Code
		2.4.4. Number of Massive Open Online Course(MOOC)measures implemented for trainings	0	1	MOOC platform established
		2.4.5. Number of universities, associations and public households reached through national awareness campaigns	0	3	NESP progress report
		Universities	0	Universities	NESP progress report
		Associations	0	4	NESP progress report
			0	Associations	NESP progress report

		Households		1000 households		
		2.4.6. Number of Job fairs on RE/EE have been supported	0	2		
		2.4.7. Number of trainings of focal persons in relevant MDAs to align RE/EE agenda with climate targets.	0	1		
C 3	Market Development, Standards and Services					
O 3	3. Technical market capacities and standards and conducive frameworks have been improved					Assumptions: <ul style="list-style-type: none"> • Electricity tariffs allow for cost recovery • SON and other custodians of regulations implement the incentive and enforcement measures as per their mandate
R 3.1	3.1. SONs capacities have been improved to perform its tasks re RE and EE	3.1.1. Number of EE standards SON developed in consultation with consumer associations and the private sector	X	X+3	Official Gazette, Protocols of Stakeholder Coordination Process	<ul style="list-style-type: none"> • SON has the capacity to oversee implementation and compliance of the developed standards • Streamlined import process is approved by relevant government authorities
		3.1.2. Number of standards SON has been supported with, for supervision in compliance with (new) RE/EE standards	X	X+2	Documentation on training of staff, Results of Analysis of Laboratory Quality Control Standards by SON	
R 3.2	3.2. Local expertise on EE services has been developed	3.2.1. Number of audits (with gender sensitive approach) executed in the building and the industry sector from national auditors	X	X+10	Audit Reports	
R 3.3	3.3. Services and Processes for EE/RE market participants have improved	3.3.1. Number of streamlined import processes for RE and EE equipment between Ministry of Finance, FMPWH, SON and customs	0	1	Import Regulations, Process Descriptions,	
		3.3.2. Number of central information platforms (one-stop-shop) for RE and EE to provide information to investors	0	1	Platform is openly accessible via internet	
		3.3.3. Number of dedicated RE sector association to drive the development of the clean energy sector (RE and EE)	0	1	Sector Mapping on RE / EE Organizations, Protocols of Association Meetings, Training Documentation of Members	

		3.3.4. Number of initiatives on electricity data collection and assessment in order to support implementation of energy efficiency measures in buildings and industries	0	1	MoU and initiative concept with at least one DisCo is available		
		3.3.5. Number of overview of ESCO models available	0	1	Feasibility study report		
		3.3.6. Number of feasibility studies for setting up a battery collection procedure and treatment process/recycling	0	1	Overview available as pamphlet and as input for one-stop-shop for investors		
R.3.4	3.4. Capacities for RE and EE have improved	3.4.1. Number of NESP I – supported training institutions that offer RE / EE trainings with nationally certified degrees	0	5	National Certification, Course Catalogues		
		3.4.2. Number of national certification process for RE/EE courses have been operationalised.	0	5	Certification exams by national body; Examination registry		
		3.4.3. Number of existing training institutions in the training partnership network on RE/EE have been increased	0	1	Training registry/ documentation		
		3.4.4. Number of training measures for which Mixed-learning approaches (MOOC & Hands-on training) have been developed.	X	X+6	MOOC platform established, resources & software developed; updated curricula		
		3.4.5. Number female training graduates whose practical skills have been supported	0	30	Programme certifications		