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Resolving Barriers to unlock Jobs for RE & Clean Energy Off –Grid Power & Cross linked sectors

Driving GDP Growth for Micro, Small & Medium Businesses in the Clean & Renewable Energy Sector with Lower Emissions

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Executive Summary

The Nigerian Economic Summit Group (NESG) anchors the Jobs Creation Unit of the office the Vice President of Nigeria in this private sector driven initiative to bring government closer to the private sector to create jobs. The Jobs Creation Unit (JCU) has five cardinal areas – ICT, Construction, Agriculture, Retail and Clean and Renewable Energy. The NESG-JCU Clean and Renewable Energy Working Group seeks to motivate creation of 3million jobs in 3years either directly from the alternative energy sources delivering energy to homes and businesses or indirectly from businesses spurned out from energy delivery or those triggered to grow as a result eg., agri-businesses.

The overall goal is to drive sustainable access to energy for all, attract foreign and local investments and improve exports exponentially to balance over dependence on imports and loss of foreign exchange to goods and services that could easily be produced locally. Therefore bankable concepts in the five core areas of the NESG JCU to drive GDP growth to 7% in 3years in a diversified economy, whilst lowering carbon emissions to the global targets are targeted in new cross linked industrial or agric clusters nationwide. The concepts are anchored on the frameworks for National Renewable Energy Action Plan (NREAP) and the National Energy Efficient Action Plan (NEEAP) to provide financial seeding for the Clean and renewable energy powered businesses.

The rapidly emerging clean and renewable energy market in Nigeria and interest of various development partners' funds and other investors suggests that a cohesive plan must be deployed to maintain integrity of quality assurance and pricing.

In driving expansion of such off-grid, captive power there are challenges which NESG- JCU needs to bridge to improve investor and consumer confidence and these challenges include poor perceptions about performance of solar power, misguided safety concerns about gas power, difficulty to access single digit loans, poor regulatory and recycling facilities, lack of coherence for renewable energy practitioners unlike in the gas sector where there strong coherence (under the Gas associations) that makes it easier to deliver capacity building and government incentives. Therefore, to support best practice and growth of the RE sector, NESG – JCU advocates building the synergy of stakeholders to drive market expansion and has several programs towards this including –

- **Driving the framework to implement the National Renewable Energy and Energy Efficient Policy** (NREEEP) in a joint workshop with government to support growth and access to technical and administrative support.--- (the workshop focus is to develop a structured approach to upscale RE growth within Nigeria's Energy Mix –thus ensuring a strong RE space within the mix. Workshop will discuss energy mix issues and focus on T*riggering, safeguarding investments ; Building the necessary infrastructure (planning, regulation) ; Ensuring political and public acceptance throughout the process (including value chain of a system with more decentralized elements)*;
- **Adopting self regulatory processes** for the RE sectors, supported by government and top RE developers/manufacturers whereby such manufacturers are granted various incentives to encourage local

assembly, and the manufacturers assure integrity of equipment and energy systems, train and build capacity of wide range of micro, small and medium companies who deploy installations in the field and in some cases, the equipment provider supports local RE companies with 60% matched funds as has been achieved with a Danish company ---Living Energy International and a Nigerian organization, Community Energy Social Enterprise Limited, whereby 40% matched funds are locally available from various sources at single digit interests;

- **Support easier access to single digit loans and funds** for the market expansion, by providing synergy across board for Nigerian RE practitioners to access various pools of funds after screening and company background verification, driving government approval for incentives for RE practitioners, providing direct links to international RE developers/manufacturers, improving access to capacity building for installation and maintenance and assisting with access to pre- assessed markets.
- **Encourage selection of a champion for the Clean energy LPG sector** to drive their multi-sector incentives anchored by the NESG. This Champion would ensure implementation of the core incentives outlined by the NESG JCU to deliver about 2.3mjobs within 5years through the LPG value. (see attached)

In the last decades, the ailing and declining infrastructure for grid energy has compelled private sector to seek energy alternatives from clean and renewable sources and this drive has gained significant boost from the National Renewable Energy and Energy Efficient Policy (NREEP). Clean and Renewable Energy delivery has proof of concept in several locations, commissioning off-grid electricity within 90days, as demonstrated in several active mini-grids providing electricity for homes, food processing facilities and businesses.

Awarding winning 'Proof of concepts' for off grid energy innovations for Renewable Energy profile. indicates 55% expansion in new businesses, savings exceeding 60% operational costs. Business models indicate that in 12 months, 5000installtions of 3.5kva - unit would create *15,000 jobs*; 50units of 100 KVA mini-grids would create minimum of 5,000 jobs delivering 5mw of electricity; the award winning biomass technology by Quintas Energy could generate up to 1mw for over 1000households, 30 – 50 SMEs, within a hub using only locally available materials. The RE installations would serve both commercial and social models depending on the sources and objectives of funds, however, in all cases payback is phased over a time frame ranging from 5years for commercial models to 10years for social models.

Innovations in gas technology include affordable noiseless generators, cold storages, water heaters and appliances to improve housing costs. With appropriate policy and financing, more than 3 million jobs could be created in 3 years, from projects *like 'Gas for Fuelwood'* for desertification, *Gas to Petrol* generators, climate smart agric as recommended by World Bank reports, such as 'Low *Carbon Opportunities' published in 2013* that also aligns with the Vision 2020 goals, especially if prototypes of the Raw Materials Research Council are deployed commercially. In addition, sales of appliances powered by solar and gas, such as, water heaters, refrigerators, air conditioners will add to total reduction of energy demand from the grid over the next 2/3 years.

In the agriculture sector, key to unlock financing for the massive expansion in agri-infrastructure, primary production, post-harvest handling and storage as well as ensuring the market linkages that would guarantee sustainability of the sector lie more in taking the sector and its funding requirement (and funding strategies) off the Federal Government's balance sheet and allowing private sector leading that derives the strength of the sector from synergies between various independent but inter-dependent segments. Such a strategy should look to create a *quasi-equity Agrifund* from low cost and long tenored sources without further leveraging existing government sources (e.g. the CBN). Examples of the components of such a Fund include-- off balance sheet instruments such as, '*Manufacturers Credit under Deferred LCs*' (where availability of FX to confirm the LCs to the manufacturers is guaranteed by the CBN at a fixed rate) and Investments by Corporate organizations (e.g. the Oil Industry, Banking Industry, Food & Beverages etc –natural beneficiaries of the Agribusiness Industry) under a regime of carefully managed incentives. Further information about such a fund structure is provided in appendix i.

Conclusion

To drive RE growth, NESG held a dialogue with MDAs in March 2016 to seek urgent government resolution. The outcome of the March 2016 dialogue was that an inter- ministerial meeting under the auspices of the Vice President's Office, (the incubator of the *Jobs Creation Program)* is urgently needed to approve recommendations to support market expansion. It is envisaged that in a couple of years, off-grid energy would release significant power to the grid where there are **appropriate government pronouncements, tax waivers, as well as government supported access to single digit matched funds and appropriate finance tools such deferred Letters of credit for RE powered agribusiness,** as has been implemented in Ghana, Indonesia, India and Turkey with incredible successes.

These incentives would open up the off-grid market potentials, to attract local and foreign investors for clean and renewable energy sector and other cross-linked sectors, such as the agri-business value chain.

Driving GDP Growth and Lower Carbon Emissions in the Clean & Renewable Energy Sector

I. Background

The reality of a failing and declining power infrastructure compels rapid expansion of off-grid power options as a quick-win strategy for millions of Nigerians who will wait for several years before the national grid reaches them. However, whether it concerns the expansion of the national grid, or whether developing the promising off-grid market, the call is for cleaner, more cost-efficient and longer lasting energy sources, such as solar, gas, biomass and wind.

Nigeria's overall energy mix (which defines a country's different sources of energy for electricity generation) needs a long-term target leaning towards a high percentage of Renewable Energies (RE) and the corresponding percentage of Gas to buffer the fluctuations of power from the grid. The role and cost effectiveness of concentrated solar as opposed to gas could be another valuable option for large-scale generation in some areas. Fossil fuels will become more expensive over the next few decades when a carbon penalty is likely to be imposed, whilst renewable are on a downward cost spiral and provide best value-for-money if external costs, such as, very low environmental footprints are taken into account. Whatever the constellation of the grid in terms of its size, reach and the capacity it is able to carry, it will be several years before the national grid becomes a reliable and substantial source of electricity for the majority of Nigerians.

In order to provide thousands of desperately needed electricity in the short- to mid-term, off-grid options are available, which are cost-effective relative to grid expansion, and can be driven by private sector investments. These include two basic categories:

A. Captive generation systems based on gas: working like IPPs, these medium sized gas-to-power stations generate larger amounts of MW up to 50mw, distributed to customers through own cabling networks/through the cabling network of the local DISCO where possible. Under certain conditions the Rural Electrification Policy allows captive power generators to negotiate their tariffs directly with their customers.
B. Small-scale Clean and Renewable Energy systems can power millions of SMEs and households, either through individual installations (e.g. solar panels on rooftops) or through mini-grids for villages or biomass cook-stove gasifiers or gas turbines for agricultural clusters. These systems would be offered by local companies (micro, small to medium sized businesses).

The drive for clean energies for Nigeria has the policy backing from several related policies, such as the National Renewable Energy and Energy Efficiency Policy (NREEEP) signed in 2015, which is directly related to the on-going reviews for an appropriate *Energy Mix*. In addition, several climate change policies, such as the Intended Nationally Determined Contributions (INDC) 2015, which primarily targets reduction of carbon emissions whilst driving GDP growth towards the 2020/ 2030 goals.

In November 2015, the COP21 held in Paris agreed targets to reduce carbon emissions that support an energy mix dominated by clean energy sources solar, hydro, wind, biomass and gas using the key measures indicated in the INDC to sustain low carbon emissions at 2tonnes per capita, whilst driving a diversified GDP growth. (Ref. INDC 2015) The main target for off-grid power is the critical mass within the 1MW range that lack adequate access to energy. Within the 1MW range, off-grid power can create its own tariffs based on affordability without need for any permits, therefore it's relatively much easier and faster deployment, makes it very attractive to investors. Therefore, with good models, appropriate financing and enlightened policy, the future for off-grid is a potential huge market that could drive GDP at 7% and lower carbon emissions to meet the 2030 global targets.

The Nigerian INDC is undergoing a review to turn it into domestic policy. The resulting NDC will have to recognize and integrate several policies on climate change, renewable energy and seriously consider off-grid options for an Energy Mix that can sustain a steady 6% to 7% GDP growth for Nigeria. The current grid energy output hovers around 3MW, which creates a huge energy gap considering that the Energy Commission of Nigeria recommends that by 2025, energy needs would grow to about 147GW to sustain a 7% growth. Similarly, Nigerian households will potentially need 34GW and the reality under the current economic situation is to deliver off-grid energy to semi-urban/ rural communities and small to medium industries. But all this growth should also be backed by lowering emissions to 2tonnes per capita. (INDC 2015)

For decades, World Bank Reports have examined the Vision 2020 goals and persistently recommended strategies to create jobs to meet demands for Nigeria's estimated 170m + growing population with 22million currently unemployed (NIBBS 2016). The 2016 *World Bank Report on Trade and Competitiveness in Nigeria* estimates that 40million new jobs will be needed by 2030, and that micro enterprises (MEs) are a key growth driver (up to 70% of labor force), but they not currently captured by government policies and programs, therefore MEs are vulnerable to macro-economic shocks making them a significant contributor to the unemployed market, even though MEs can be easily mobilized for growth with appropriate policy and financing. The *World Bank 2013 report on Low Carbon Opportunities* made key recommendations that could target MEs to ensure steady growth in jobs and revenues, whilst lowering carbon emissions through climate smart agriculture and forestation powered by off-grid energy sources including gas power. Off- grid power is an enormous market in Nigeria and is one of the most significant and fastest growing business investment platforms globally. Off grid power sources are solar, wind, biomass and gas – and all are clean and renewable energies with minimal environmental footprints.

Due to inadequate framework to support growth of micro-enterprises generally, the NESG-JCU provides a platform to drive growth of micro-enterprises and SMEs, by supporting access to intervention funds, capacity building and monitoring to improve investor confidence in the micro business sector especially.

II. Linking Government Policies and Development Bank Reports to Expansion of Off-Grid Power

In creating enabling platforms for investors, government is already considering appropriate energy mix to drive new jobs whilst lowering emissions. The *National Renewable Energy and Energy Efficient Policy (NREEEP*) and the *Intended Nationally Determined Contributions (INDC*) both signed *2015,* as well as agriculture, water, climate adaptation and mitigation policies are key guides for appropriate Energy Mix with emphasis to create jobs and lower emissions under severe economic conditions. Creation of jobs from the off grid sector is impacted by current high startup costs and retail prices, this needs favorable incentives from various MDAs linked to revenue generation, trade, environment and power ministries to open up the market .

The renewable energy policy (NREEEP) allows nation-wide deployment of up to 1mw of power without permits, while gas driven generators will drive captive or embedded power for small and high power demands. To trigger off –grid power growth, the NESG has held several dialogues with a wide range of consumers and off – grid energy providers to assess proof of concepts and understand the inherent strengths, weaknesses and solutions to improve effectiveness because micro-enterprises and SMEs have the potential to implement recommendations of various WB reports, and create over 3million jobs in 3years. Proof of concepts in off grid scenarios have shown averages of about 55% increase in new businesses and huge savings and value add to existing business within 6months. For example, hairstylists on average indicate above 75% opex savings and a barber employed 4 additional staff based on opex savings in that period. So in targeting the ubiquitous users of petrol generators within range of 2kva to 7.5kva, stand-alone solar or gas generators can reduce demand on petrol immediately, with desirable impacts on noise pollution and safety. To curb waste, the NESG Sustainability Policy Commission, calculates that 50m tons of cassava wasted annually can be converted to 504tons of dried cassava chips, 10tons of animal feed, 150,000jobs and gross revenue of N300bn.

The *World Bank in its Low Carbon Opportunities Report of 2013* indicates that a range of low carbon activities including captive gas power, climate smart agriculture and forestation, would contribute $304bn in 4 to 5 years with an investment of $147bn. The Nigerian LPG Association estimates revenues of $5bn in 4years with an investment of $1.7bn based on sales and distribution of gas (estimates based on at 5,000m tons per annum at $1000/ kg). The Chair of the Petroleum Task Force, Nuhu Ribadu in 2015, urged for resolutions to curb losses through flared gas that represents 12.5% of global volumes and is 68% of associated gas or 51% of total gas production in Nigeria. Nuhu Ribadu further stated that this gas could power 7000mw of efficient thermal electric power, 1,400 agro processing facilities, 350 textile plants and 70 fertilizer plants with exponential revenues and jobs.

III. Barriers to Rapid Growth and Jobs Creation in the Off-Grid Market

The key challenges to up-scale off- grid jobs are initial high costs, which deter rapid uptake, and therefore, to unlock its jobs potential, affordability is key. Based on this, NESG-JCU recommends replication of successful models from Ghana, India and Indonesia, which have already been reviewed and accepted by stakeholders to deploy appropriate off-grid models for Nigeria and achieve rapid market expansion. These successful models

included a mix of incentives, such as, zero tax on all related equipment and raw materials, plus activating easy access to single digit intervention funds or grants. With such incentives, Ghana has achieved 68% increase in solar power in 3years. While Indonesia created over 1million jobs in 12 months through sales and distribution of cooking gas to 50million people. (*World Bank Report on LPG in Indonesia 2013 and the WLPGA 2013 Kerosene to Gas conversion project Indonesia).*

Addressing Challenges in off-grid power delivery

Delivering power in this segment of the economy is not without challenges. The relatively high initial capital costs mean that investors would need palliatives and incentives not only to drive their businesses profitably but also to attract foreign investors to manufacture/assemble equipment in-country with beneficial savings on foreign exchange.

Therefore, the cross cutting impediments impacting an expansion of the renewable and clean energy sectors requires inter-ministerial actions to approve incentives and palliatives to promote rapid growth. The positive side of all this is that green technology based projects are designed to be socially inclusive, whilst addressing environmental and public health issues to stimulate jobs creation and GDP growth. The long life span (eg., 25 years for solar panels and 7-11 years for batteries) of most green technology equipment also opens opportunity for long term pay back periods and galvanizes local demand to attract investors. Furthermore, several intense research programs, such as that of Bill and Melinda Gates Foundation will drive down retail prices of green technologies and so its growth has a very bright future.

In Ghana, Indonesia, and India, renewable and clean energy equipment are tax free (NESG Research ref 2016 on application of HS codes) leading to its rapid growth. Kenya generates 76% from RE whilst Ghana generates 68% RE Energy thus improving its overall access to energy by 60%. Nigeria RE currently contributing less than 4% to overall access to electricity.

Collectively, investors need tax waivers and rebates for equipment to attract better retail prices and local manufacturing. There are some tax incentives in place but to reduce the unit cost of power to affordable range of about N1500 to N3000 per month, with a repayment plan of 3- 5years, more incentives and palliatives are needed. The NESG led dialogue with MDAs in March 2016 indicates the need for an inter-ministerial meeting to agree modalities for these incentives.

Specific opportunities (and challenges) in off-grid energy sources as follows;

Solar – the Energy Commission of Nigeria (ECN) states that solar has a potential output of up to 500,000MW using 1% of Nigeria's land surface. The renewable energy policy allows delivery of up to 1MW without permits – thus meeting the demands of homes and many small and micro businesses, such as in the agric and food production segment especially in rural hinterlands. With ease of deployment, solar off-grid can grow exponentially to increase GDP in communities.

Wind: wind technology is the fastest growing energy source in the world – with declining prices as technology improves. ECN states that in northern Nigeria wind energy can generate significant power for industrial and domestic use. Wind energy has challenges of speed and obstruction of wind in many southern areas but technology is producing improved equipment.

Biomass: has higher viability in the south where raw materials can be easily sourced from dumpsites and household waste. Biomass is best deployed in farm-gate clusters due to high energy outputs and lower energy per unit cost against solar. Quintas Nigeria – has won several awards for innovation for their *smoke free top lift updraft gasifiers* comparable to the best in the world.

Captive gas: the gas sector needs infrastructure to sell and distribute gas nationwide. The Nigeria gas associations have calculated ability to repay single digit intervention loans within 5years. The loan is needed to build production facilities and logistics for a sales and distribution network that would translate flared gas to a $5bn value chain with an investment of $1.7bn within a five year timeframe. This calculation is supported by the *World Bank Low Carbon Opportunities* report, which indicated that such revenues are possible from captive gas. Other challenges are smooth access to sites usually operated by International Oil Companies and faster release of permits.

Focus Areas for Jobs Creation from Off Grid Power

The basic approach is *private sector driven initiatives* to create bulk off-takers, and stimulate the interest of investors in clean energy efficient, green technologies to tackle various socio-environmental challenges such as desertification in northern Nigeria and Lake Chad, and to drive agribusiness value chain appropriately. These include;

i. Rapid deployment of clean energy to support multi-million dollar desertification projects in 11 northern Nigerian states

Millions of dollars spent on greenbelts for desertification could be lost in few years if alternatives to firewood for domestic use and micro businesses are not applied quickly. Scaling up use of clean energy sources would create jobs through *forward and backward linkage businesses, including local assemblage, production, distribution of related equipment (eg cooking stoves, gas cylinders, valves regulators etc) and the related delivery infrastructure of renewable/ clean energy sources to bridge supply gaps, for various multiplier applications from domestic cooking fuel, industrial gas, auto-gas for vehicles, fuel gas for on-grid, embedded and captive power generation, and to drive agric and agro-processors and feed stock in* ***the northern states and nationwide with a potential to create 3 to 5 million jobs within 5 years****. (NLPGA data 2015). The World Bank 2013 report supports this as stated earlier. The successful Indonesian model has been adopted for Nigeria. Indonesia scaled up LPG to 85% of domestic use within 4 years, creating over 5m direct and indirect jobs.*

Lake Chad: Thirty three (33) million people from the four border countries depended on Lake Chad about three decades ago. Desertification challenges need to be addressed sustainably to re-habilitate this eco-region, revitalize jobs and mitigate insecurity arising from continued lack of socio-economic comfort. An FAO study in

2012 indicates a combined approach for alternatives to firewood and re-charging of the Lake Chad from surrounding River Basins as the sustainable solution through appropriate frameworks for implementation.

ii. Rapidly deploy renewable energy (solar,biogas**) for homes and climate smart agriculture technologies**

With 170million plus people and a consumer market worth nearly $400bn, it is pertinent that Nigeria leverages its huge retail market to arrange innovation funding models to fund the agri-buisness and also support ancillary sectors critical to improved agricultural productivity. (FAO 2012; CIA World Fact Sheet 2013; CBN (2014)

In 2013, the Ministry of Agriculture was optimistic that by 2015, the agricultural sector would replace oil and gas as the higher GDP contributor --- but this has not happened due a number of constraints in the agri-business value chain that could be bridged by green technologies for smart agriculture. Therefore, alignment of clean and renewable energy, as well as appropriate financing mechanisms and tools such as '*Manufacturers Credit under Deferred LCs*' (where availability of FX to confirm the LCs to the manufacturers is guaranteed by the CBN at a fixed rate) and Investments by Corporate organizations (e.g. the Oil Industry, Banking Industry, Food & Beverages etc –natural beneficiaries of the Agribusiness Industry) under a regime of carefully managed incentives. Further information about such a fund structure is provided in appendix i.

Pioneers in clean and renewable energy and especially the homegrown biomass energy technologies by Quintas Energy have proof of concept showing significant increase in potential jobs as a result of energy delivery to homes and agri-businesses.

The NESG JCU will build agri businesses around 14 clusters of staple processing zones in the country – to build out new business ecosystems including low cost homes, 5ha per small hold farm, banking and agric asset hiring facilities, 50km to 100km of rural roads built from clay paving slabs, storage/processing/retail facilities.

iii. Rapidly scale up energy efficiency (EE) and energy efficient (EE) products

The UNDP calculated a savings of about $1.4bn p.a. from energy re-assigned to grids. This energy represents improved efficiency by scaling up use of EE products. The threats of fake energy efficient bulbs and others products have prevented local production of EE products, which would create jobs and revenues

Studies with proof of concept for best energy mix for in mobile telecommunications indicated up to 45% opex savings with appropriate energy mix mainly derived from gas.

iv. Rapidly tackle energy waste and consumption through captive gas

The current penalties for gas flaring in Nigeria officially stand at $3.50 per 1000 standard cubic feet. "Nigeria flares about 1.2billion cubic feet (bcf/d) of gas a day, --.which could fuel about; 7000MW of efficient thermal electric power, over 1,400 agro processing facilities, 350 textile plants, 70 fertilizer plants with opportunities for creating over one million jobs. This amount of gas flare represents 12.5per cent of all globally flared gas, which is 68 percent of the associated gas produced or 51 per cent of the total gas production.

The NLPGA calculates a $5bn value chain with an investment of $1.7bn for sales and distribution of captive power with about 2.3m jobs created. This is supported by the 2013 World Bank Report, which indicates

$304bn revenues in 4- 5years from all the clean and renewable energy benefits dominated by captive power and agric.

Preparing flag off for Jobs from renewable and clean energy sector in July 2016

Several business models for MSMEs are ready and can be completed within 6 months but are hindered by appropriate fiscal and funding incentives. With support of NESG's international sustainability partners--Ernst & Young, multiple business proposals are under review to ensure that projects are bankable. NESG –JCU had prequalified several projects for tax waivers and access to financing, such as the 'gas *for firewood swop'* projects for desertification/forestation, and over 150 pre-assessed off grid projects nation-wide that would serve, food processing facilities, homes, various micro enterprises eg., virtual tel-vendors, barbers and hairstylists, multi-purpose cooling facilities for vegetables, diary and meat preservation, farm clusters for food preservation and processing and in collaboration with stakeholders such as Union bank of Nigeria Agriculture Schemes and other clean energy, housing and farm associations these projects have potential to create over 3million jobs in 3years. A multi-purpose 120GW solar panel project starting in Kogi state is estimated to create 3,500 jobs when completed.

In March 2016, NESG held a public dialogue with MDAs to resolve fiscal and operational barriers and it was agreed that an inter-ministerial meeting is urgently needed to tackle these cross linked issues. The impediments reviewed cut across several MDAs including –Ministries of Power, Environment, Water Resources, Trade , Finance, Agriculture and National Planning as well as Nigerian Customs Service and the Federal Inland Revenue Service and the Standards Organization of Nigeria.

Based on the outcomes of this dialogue, the NESG JCU advocates a range of tax waivers and rebates to be applied to the attached list of equipment with technical specifications and raw materials from the Clean and Renewable Energy Sector for a period of 3years, to trigger exponential growth in the off grid market. Equally important is government support for CBN financial mechanisms and tools, matched funds, grants, debt-financing and or equity from foreign and local investors, multi-lateral and development agencies.

During the inauguration of the NESG –JCU in March 2016, by the Vice President, he pledged that government would support fiscal and operational incentives to drive growth and create jobs within the five cross linked sectors – ICT, Retail, Construction, Agriculture and Clean and Renewable Energy. On the premise that an inter-ministerial committee would approve the incentives requested by these sectors, the NESG-JCU is anchoring an intense jobs creation program to develop new business ecosystems, drive GDP growth while lowering emissions nationwide.

So to flag off, the NESG-JCU is anchoring an intense 3-year program to develop new business clusters nationwide based on three broad areas –

- **Stimulating demand for gas demand** --through domestic, industrial and autogas usage. This program targets critical mass in desertification states and delivers gas from flare sites in Niger Delta. It's a Gas for fuelwood/ Gas for Petrol campaign to support desertification and other business clusters, triggering

exponential increase in the gas demand and opening the gas market to investors and consumers as well as other cross linked agro-forestry and agri-business projects. This project is driven by Ernst and Young, with participation of the Nigerian LPG Association, Heinrich Boll Foundation and GE Nigeria, using bankable models to deliver fully repaid loans within 5years.

- **Expanding the RE market** through 1mw; 500kwa; 100kwa energy systems for mixed clusters that can repay single digit loans in 5years. Such roll out includes onsite capacity building, health and safety standards. Key business drivers in this sector are Community Energy Social Enterprises who have signed on RE developers and manufacturers to initiate a very high level of Re delivery with matched funds and equipment and systems integrity assurances.
- **Developing new agribusiness clusters** --- over 50m ha of arable lands are untapped--- NESG –JCU is anchoring development of new business clusters to exponentially increase outputs for top priority food and cash crops through a well managed agri-business value chain. The idea is support government initiative to phase out imports of certain crops for the food and beverage industry and build export markets for others. Pre-qualified existing farm clusters would be improved along the agri-business value chain to reduce annual farm produce wastages. Powered by RE the agri-business clusters is driven by Union Bank with participation of international Technical Partners, Multi-lateral Development Banks and Nigerian corporate organizations.
- **Capacity Building**--- the Clean energy sector handles its capacity building needs through its associations, however, the RE sector needs assistance to set up such synergy amongst themselves and build strong capacity building for re-skilling. The NESG-JCU has reached out to local and international capacity building companies, such as, GIZ and others for onsite and virtual training sessions with certification. NESG-JCU will have a training centre by 2017.
- **Self –regulatory efforts—**will be deepened by NESG –JCU anchored support to participating international developers and manufacturers and funders **to** maintain integrity of the RE delivery**.**