Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa

A component of the project
Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa

13 April 2018

African Development Bank Group
Immeuble CCIA
Room 2H
Abidjan, Cote d'Ivoire
1. INTRODUCTION

The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) is organizing a one-day Regional Validation Workshop to present, discuss and finalise the draft situation analysis report of the **Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa**. The workshop is scheduled to take place on **Friday 13-April-2018**, at the **Headquarters of the African Development Bank Group (AfDB)**, in Abidjan, Cote d’Ivoire.

Organized in collaboration with the AfDB and the New Partnership for Africa’s Development Infrastructure Project Preparation Facility (NEPAD-IPPF)¹, this workshop is a key product of the ‘Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa’. It will be influential in the design of the main project, i.e. Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa.

The workshop will bring together key international, regional and national stakeholders. These will include: multi-lateral agencies, development partners, financial institutions, relevant ECOWAS institutions, ECOWAS ministries, departments and agencies, project developers, entrepreneurs, civil society organizations, the private sector and other relevant stakeholders interested in taking part in the movement to create a more vibrant women’s entrepreneurship ecosystem within the energy sector across the ECOWAS region.

The workshop will provide a platform to introduce and deliberate on the draft report that will include a detailed presentation on the existing entrepreneurial ecosystem, especially as it concerns women entrepreneurs, within the selected ECOWAS countries - **Ghana, Cote d’Ivoire, Nigeria and Senegal**. These four countries combined, represent a sizable portion of the overall regional energy related infrastructure, consumers and women-led energy businesses. The energy sector in this project encompasses renewable energy and energy efficiency products and services.

The event will feature:

- Presentation of field interviews and secondary research on the entrepreneurial ecosystem in West Africa, with a focus on women entrepreneurs;
- Analysis of the key challenges women-led businesses face and the recommendations to address these challenges;
- Deliberation on factors behind selection of the **sixteen women-led businesses** that require support for development;

¹ NEPAD-IPPF is a multi-donor Special Fund hosted by the AfDB, which supports African countries to prepare regional infrastructure projects in energy, transport, ICT and transboundary water. It is currently supported by several Donors including Canada, Germany, UK, Spain, Norway and Denmark. Over its ten-year existence since 2005, NEPAD-IPPF has prepared over 78 regional infrastructure projects, half of which have reached financial closure resulting in investment financing of over US$6 billion, thus, responding directly to Africa’s integration and development efforts.
- Presentation of the four projects selected for the next phase of the project, i.e. development of bankable feasibility studies;
- Presentation of the draft bidding documents for the launch of the ‘Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa’; and
- Finalization of other components of the situation analysis report.

Furthermore, the event will feature the first meeting of the Project Steering Committee (PSC).

The envisaged outputs from the workshop will include:

- Feedback from stakeholders on the methodology and inferences derived from the research undertaken under this pre-feasibility study;
- Validation of the draft situation analysis report of the: Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa.

2. BACKGROUND

In March 2017, ECREEE received USD 1 Million from the AfDB Group, through the New Partnership for Africa’s Development Infrastructure Project Preparatory Facility (NEPAD-IPPF) Special Fund, to implement a regional project: the ‘Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa’. The project seeks to ensure that the region meets its goal of universal energy access for its over 300 million people, by developing a high quality gender responsive, regional energy market development strategy that taps into the innate entrepreneurial capacity of ECOWAS women. Harnessing this capacity would lead towards increasing the establishment of energy businesses and the deployment of energy technologies to meet the energy needs of the region’s largely unserved population.

In line with this objective, the project will focus on regional energy infrastructure development and business opportunities for 16 women businesses in 4 countries of the ECOWAS region and identify opportunities in the underfinanced small to medium business sectors. The aim is to achieve domestic and regional roadmaps that would encourage economic growth in the ECOWAS region.

The Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa project is a product of the ECOWAS Policy for Gender Mainstreaming in Energy Access which aims, among others, to increase women’s participation in energy-related fields in the private sector by 25% by 2020 and 50% by 2030. Its methodology is drawn from a forward-looking report prepared by PricewaterhouseCoopers (PwC), which analyses how the energy value chain will change in the future, and the new markets that will be created from these transformations.

According to the PwC report, “the energy sector is transforming, globally, driven by five megatrends, namely: technological breakthroughs, climate change & resource scarcity, demographic and social change, economic growth and rapid urbanization. At the local level, the power markets are transforming, driven by distributions involving customer behaviour, competition, the production service model, distribution channels, government
policy and regulation2. The report goes ahead to explain that “some of the changes arise from the megatrends – for example the regulatory encouragement of renewables in response to climate change concerns – while others heighten the impact of particular megatrends – for example the potential for rapid urbanization to accelerate the roll-out of distributed energy and micro-grids. Together, these megatrends and the changes taking place in and around the sector have profound implications for the strategies and future role of companies all along the power utility value chain. They are combining to have a disruptive impact which will lead to the development of new market models and require companies to pursue new business models3.”

These global megatrends include:

1. **Technological breakthroughs**: innovations in power technologies are changing the way the sector operates: “Power is being transformed from a top-down centralized system to one that is much more interactive but also decentralized and fragmented4. Renewable energy, distributed energy systems, increased customer interactions with power providers through internet & mobile devices are forces that need to be recognized. “Elements of the old centralized system are becoming stranded and there’s a need to find an alternative investment model that recognizes technological advances.5”

2. **Climate change and resource scarcity**: the world is moving toward a power sector that is environmentally friendly. The landmark achievement at the COP 21, where world leaders agreed to support the uptake of cleaner technologies, is certain to lead to an accelerated deployment of low-carbon technologies and sustainable practices, where renewable energy and energy efficiency will be at the forefront of this transformation. “Together, renewable technologies, energy saving and a different customer outlook are leading to a transformation of the electricity environment. They are causing the value chain to shift, away from large conventional power plants towards local power generation, and a greater focus on distributed energy”6.

3. **Demographic changes**: The ECOWAS region presently has a population of over 300 million people, representing about 2/3 of the continent’s population. The number of inhabitants is expected to skyrocket, driven mainly by Nigeria’s rapid population growth. By 2045, Nigeria’s population will overtake America’s7. As of present, over half of the region’s population do not have access to modern energy services. And, even though the rate of electrification is increasing, rapid population growth is undermining the positive effect. The large number of underserved inhabitants is a huge market opportunity for both indigenous and outside investors.

4. **The emergence of new global economic players**: The ECOWAS region is dynamic and fast growing with many human and natural resources to its advantage. ECOWAS Member States have experienced a healthy economic expansion since 2005, with an average economic growth rate of more than 5% per year, and the region is one of the fastest growing agricultural regions in the world8. The importance of increased availability of energy, as an input of production, cannot be overemphasized.

5. **Rapid urbanization**: West Africa is expected to become a majority urban-dwelling region within ten years. UN Habitat projects that the percentage of West African urbanites will increase from 42% in 2005 to over 54% by 2025, where over 70% of Liberians and Cape Verdeans and over 60% of Gambians.

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3 Ibid
4 Ibid
5 Ibid
6 Ibid
7 Ibid
Ghanaians and Nigerians are expected to live in cities. In numerical terms, this means a doubling of West Africa’s current urban population of some 130 million by 2030, even as overall urban population growth moderates. Lagos alone may reach a population of 20 million by the 2020s, with another 30 cities exceeding one million inhabitants. Power companies can play a pivotal role in ensuring that future cities become ‘urban smart’ rather than ‘urban sprawl’.

These megatrends are changing and shaping the future of energy value chains and will lead to the emergence of new roles with respect to participants in the energy value chain that include – energy production, transmission, storage and distribution.

This assignment intends to utilize this framework and adopt it to test the entrepreneurial ecosystem in the West African region from the current perspective and possible changes that may occur in the short term. Based on preliminary results, we observe two types of forces impacting the business model and transformations in energy-based businesses which are – external forces (changing energy generation, transmission, storage and distribution dynamics), and internal forces (company’s strategic capabilities which include its operational, human resource and financial dynamics).

2.1 RESEARCH METHODOLOGY AND FINDINGS

The research focused on the private-sector, specifically women-led businesses as agents of change in the energy value chain, keeping them as the central theme in the research, while the external factors are drivers of change in the energy value chain. We started by looking at each of the components in the above PwC Energy Transformation Framework for the 4 selected ECOWAS countries to see how the global megatrends apply to these countries; what disruptions are impacting the power sector; what these disruptions will mean to these markets, before evaluating a selected number of women-led businesses to assess their business model; the

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11 This assignment doesn’t go into predictive modelling but only focuses on identifying strategic capabilities of women-owned businesses and qualitatively determining their adaptability to change.
challenges they face and, eventually, what business model changes and transformations are required by them in order to face the changing energy market dynamics. We have done a comprehensive evaluation of women-led businesses to understand their purpose (product and service profile), business model, operating model/capabilities, human resources model and financial performance. It must be understood that the framework has been used to evaluate the present situation of women entrepreneurs as well as to determine their strategic capabilities for making the right moves, with the changing energy market and business models.

We have found that most of the women-led businesses are already in transition and are gradually evolving depending on the changing energy value chain. The problems faced by women-led businesses dealing with commoditised energy products and new/niche energy businesses are similar, with access to finance being a predominant factor retarding their growth. We see that for debt-based financing, commercial bank lending is determined by the credit-risk profile of the borrower which in turn is affected by changes in the energy value chain (resulting in unpredictability and instabilities), hence banking institutions are reluctant to extend credit to energy-based small and medium enterprises (SMEs) unless tangible collaterals back them up. Most women entrepreneurs lack these collaterals. We observe that many of them are unable to present their business documents in formats that enable banks to appropriately evaluate the risks associated with the business, hence unintentionally contributing to their inability to access commercial credit.

On the side of equity-based financing we observe similar issues, which is that women entrepreneurs are unable to adequately ‘package’ and sell their business ideas to investors (and private funds) due to lack of financial expertise. These factors have kept most women entrepreneurs in a situation where they only qualify for small-sized financing (mostly grants), which is not sufficient for tangible growth. Most women-led businesses are financed either through their own funds or from grants which make the business scalability and sustainability questionable. It is noteworthy to see in our research that there is a very low involvement of women in energy related businesses, although they are the major beneficiaries as consumers.

### 3. SCOPE AND PURPOSE

A 1-day workshop is planned to undertake a full and transparent validation process to review and discuss the findings and recommendations of the draft situation analysis report of the Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa.

This validation workshop is intended to increase understanding of drivers of change in the energy value chain; present the profile of West Africa’s entrepreneurial ecosystem; illustrate the impact of changes in the energy value chain on women-led businesses as well as transformations that will enable women entrepreneurs to evolve into proactive agents of change rather than reactive observers.

The presentations and discussions will provide the opportunity for participants to get informed on:

- drivers of change across the energy value chain in the 4 ECOWAS countries selected for the project;
- the profile of women entrepreneurs across the energy sector;
- business models adopted by women entrepreneurs across the region;
- challenges faced by women entrepreneurs dealing with energy products and services;
- new technologies that are commercially successful in other countries with potential for development/replication in ECOWAS region;
necessary conditions for the improvement and development of women’s entrepreneurship ecosystem in the ECOWAS region.

The workshop is designed to be interactive and participatory. Participants will therefore be expected to provide input on how to develop the business environment in the region, through and beyond the project.

4. PARTICIPANTS

The regional validation workshop will bring together representatives from the following institutions:

1. ECREEE
2. ECOWAS Bank for Investment and Development (EBID)
3. AfDB
4. NEPAD-IPPF
5. Energy ministries in the relevant ECOWAS member states
6. Finance ministries in the relevant ECOWAS member states
7. Women entrepreneurs
8. Donor Agencies
9. Commercial Banks
10. Private Funds

5. OUTCOMES

The expected outcomes of the regional validation workshop for the situation analysis report on the Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain will include:

- Installation of the Project Steering Committee (PSC);
- Endorsement of the four country pilot projects;
- Approval of next steps for the feasibility study of the four selected projects.
ECOWAS REGIONAL VALIDATION WORKSHOP

FOR

Pre-feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa

13 April 2018
Immeuble CCIA - Room 2H
Abidjan, Cote d'Ivoire

Work Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>08:30</td>
<td>Registration of participants</td>
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<tr>
<td>09:00</td>
<td>Welcome remarks by:</td>
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<tr>
<td></td>
<td>ECREEE, Mr. Mahama KAPPIAH</td>
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<td></td>
<td>NEPAD-IPPF, Mr. Shem SIMUYEMBA</td>
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<td>African Development Bank, TBD</td>
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<td>10:30</td>
<td>Group picture</td>
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<td>Coffee break</td>
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<td>Pre-Feasibility Study on Business Opportunities for Women in a Changing Energy Value Chain in West Africa</td>
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<tr>
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<td>Facilitator: Monica MADUEKWE</td>
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<tr>
<td>11:00</td>
<td>Presentation of Situation Analysis report</td>
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<td></td>
<td>Mr. Azam PASHA</td>
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<tr>
<td>12:30</td>
<td>Discussions</td>
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<td>13:00</td>
<td>Lunch</td>
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<td>14:30</td>
<td>Presentation of projects selected for long-term development and for immediate feasibility study</td>
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<td>Mr Azam PASHA</td>
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<td>Ms. Monica MADUEKWE</td>
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<tr>
<td>15:00</td>
<td>Presentation of bidding documents</td>
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<td>Mr. Azam PASHA</td>
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<td>Ms. Monica MADUEKWE</td>
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<td>15:30</td>
<td>Discussions</td>
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<td>Presentation of next steps for project implementation</td>
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<td>Ms. Monica MADUEKWE</td>
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<td>17:00</td>
<td>End of workshop</td>
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