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POWER AFRICA NIGERIA POWER SECTOR PROGRAM GENDER MAINSTREAMING IN NIGERIA'S RURAL ELECTRICITY COOPERATIVES

November 2021

Deloitte Consulting LLP prepared this publication for review by the United States Agency for International Development (USAID). It was prepared under Task Order No. 01: The Nigeria Power Sector Reform Program (the "Task Order") of the Power Africa Indefinite Delivery, Indefinite Quantity ("IDIQ") Contract No. 720-674-18-D-00003 implemented by Deloitte Consulting LLP. The contents of this publication are the sole responsibility of Deloitte Consulting LLP and do not necessarily reflect the views of USAID or the United States Government.

POWER AFRICA

NIGERIA POWER SECTOR PROGRAM

GENDER MAINSTREAMING IN NIGERIA'S RURAL ELECTRICITY COOPERATIVES

IDIQ Contract No. 720-674-18-D-00003 Power Africa Expansion

Task Order No. 720-674-18-F-00003 Power Africa Nigeria Power Sector Program (PA-NPSP)

USAID | Southern Africa

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Submitted: 10 September 2021

Comments Received: 30 October 2021

Resubmitted: 17 November 2021

Cover Photo Credit: PA-NPSP/Tochukwu Mbachu

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ACRONYMS

Acronyms	Definitions
AERDD	Association for Renewable Energy and Sustainable Development
AWITA	Association of Women in Trade and Agriculture
BTG	Beyond The Grid
CSOs	Civil Society Organizations
DISCO	Distribution Companies
EDM	Electricidade de Mocambique
EI	Energizing Economies Initiative
EEP	Energizing Education Program
EPSR	Electric Power Sector Reform Act
FGN	Federal Government of Nigeria
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft fuer Internationale Zusammenarbeit
IPP	Independent Power Producers
LASURECO	Lanao Del Sur Electric Cooperative incorporation
LGA	Local Government Areas
MSMEs	Micro Small and Medium scale Ent
MW	Mega Watt
NEP	Nigerian Electrification Programme
NESP	Nigerian Energy Support Programme
O&M	Operation and Maintenance
PA-NPSP	Power Africa Nigeria Power Sector Program
PAYG	Pay-As-You-Go
PUE	Productive Use of Electricity
PV	Photovoltaic
REA	Rural Electrification Agency
REAN	Renewable Energy Association of Nigerian
REF	Rural Electricity Fund
REUCS	Rural Electricity Users Cooperative Society
SDG	Sustainable Development Goal
SHS	Solar Home System
STEM	Science Technology Engineering Mathematics
TEEM	Training, Empowerment, Exposure, and Mentorship
UNDP GEF	United Nations Development Program Global Environment Facility
US	United States
USAID	United States Agency for International Development
WECF	Women Engage for Common Future
WOFAN	Women Farmers Advancement Network

EXECUTIVE SUMMARY

There is a meaningful opportunity to increase women's participation in Nigeria's rural electric cooperatives in an effort to make rural electrification more equitable and sustainable as well as drive economic growth. According to the World Bank's latest 2019 data, the percent of the Nigerian population without access to on-grid electricity had decreased 8.5% in the prior four years to 43%, in part attributable to the 11% growth in population during those four years (World Bank 2021a,). While off-grid solutions continue to gain momentum, investors are often unwilling to commit capital for projects in rural communities due to perceived low profitability and secure cashflows over time (REA 2020). The Rural Electrification Agency (REA) established the Rural Electricity Users Cooperative Society (REUCS) as one avenue for providing access to affordable and sustainable electricity in rural communities across Nigeria (REA 2020).

Thirteen REUCSes are involved in off-grid Nigerian Electrification Project (NEP) projects, but there is limited data on their operations. Community engagement activities after the initial establishment of REUCSes are sparse and REUCSes become inactive overtime. This presents an opportunity to strengthen the REUCS as a functional service provider for the communities they serve.

Women make up 25% of REUCS staff on average, with few occupying leadership and technical positions (REUCS 2021). There is a need for a deliberate, inclusive strategy that promotes gender mainstreaming in these rural electricity cooperatives.

This report provides an overview of REUCSes in Nigeria, the current state of women's participation, and opportunities for greater gender mainstreaming throughout. The report also draws on case studies of rural electric cooperatives globally and makes the following recommendations for gender mainstreaming in REUCSes in Nigeria:

- Increase awareness through community campaigns on gender biases and the economic benefits of women's inclusion in REUCSes.
- Provide technical, leadership and financial training for women members to increase women's technical knowledge, retention, and participation in the REUCSes.
- Incorporate into REUCSes bylaws gender quotas for women in specific leadership roles to encourage the recruitment and retention of women.
- Adopt policies under REUCSes bylaws that protect women against sexual harassment and anti-discrimination, creating safer work environments and enabling greater workforce productivity.
- Provide access to flexible financing and payment plans to support women entrepreneurs who are cooperative members in scaling their businesses.
- Support the establishment of women-only REUCSes in communities where cultural constructs prevent the women and men from participating in REUCSes together.

Each of these recommendations are explored and supported in each of the sections of the report. The report includes an introduction, an overview of the intersection of gender and the Nigerian off-grid energy sector, an overview of rural electricity cooperatives in Nigeria, a discussion of women's participation in these cooperatives and opportunities for increased participation, several case studies on women's participation in electric cooperatives globally, and recommendations for the Rural Electrification Agency (REA) on further mainstreaming gender equity into the REUCS initiative in Nigeria.

INTRODUCTION

Nigeria is the largest economy in Sub-Saharan Africa. Nigeria's annual GDP is US\$432 billion with a population of over 200 million (World Bank 2021bc). 43% of this population (approximately 85 million people) do not have access to on-grid electricity, costing the economy US\$26 billion per year (World Bank 2021d). There is a sizable market opportunity for off-grid energy solutions in Nigeria, US\$8 billion annually (Rocky Mountain Institute 2018), but many investors are still unwilling to commit capital to rural electrification projects due to perceived profitability and cashflow risks (REA 2020).

PA-NPSP OVERVIEW AND GOALS

Power Africa's Nigeria Power Sector Program (PA-NPSP) is the signature initiative of Power Africa in Nigeria. PA-NPSP has a target to enable 10,000 MW of new and rehabilitated generation capacity and 3,000,000 connections by 2023. PA-NPSP promotes Power Africa goals by working to increase electricity availability, access, and reliability throughout Nigeria. PA-NPSP contributes to comprehensive reform in Nigeria's power sector, addressing gas-to-power challenges, competitive procurement of clean and conventional energy, regulatory and policy reforms to foster greater sector transparency and private investment, utility distribution sector reform, and off-grid electricity access. PA-NPSP increases electricity availability, access, and reliability throughout Nigeria, while measuring objective progress across four program outcomes:

- **Outcome 1:** Increase Private Investment in Gas Supply, Power Generation, and Transmission
- **Outcome 2:** Facilitate New Off-grid Connections to Cleaner Power Supply
- **Outcome 3:** Improve the Enabling Environment for Private Sector Participation in Power Sector
- **Outcome 4:** Promote Improved Liquidity throughout the Energy Sector

Under Outcome 2, PA-NPSP is supporting Nigeria's off-grid energy sector through a combination of enabling environment activities, direct support to project developers, energy technology and service provider companies, investors, donors, and financiers, and collaboration with other major stakeholders and programs operating in Nigeria including REA.

To promote gender equity and inclusion, PA-NPSP seeks to maximize opportunities to include women in decision-making and leadership roles, facilitates the adoption of sound policies and leading practices to promote gender equity in the workplace in public and private energy institutions, develops a pipeline of women with relevant technical and professional skills to meet sector labor demands, and advances women-owned businesses and women entrepreneurs in Nigeria. PA-NPSP works with the Federal Government of Nigeria (FGN) to mainstream gender and social inclusion across its activities. This collaboration includes working closely with REA to enhance community engagement manuals as well as toolkits that strengthen approaches to include women and members of marginalized groups in community consultations, capacity-building activities, and access to job opportunities. PA-NPSP's gender mainstreaming activities include establishing and supporting forums for women's leadership and networking in Nigeria's energy sector, developing and implementing critical energy sector skills trainings for women, and advising off-grid energy companies on gender mainstreaming in their leadership, workforce, and products and services.

REPORT OBJECTIVES

This report provides an overview of the REUCS initiative established by REA and provides recommendations on gender mainstreaming and increasing women's participation therein. The report identifies the current gaps and challenges to mainstreaming gender in REUCSes. The report builds on the PA-NPSP [Gender Mainstreaming in the Solar Home System Value Chain](#) Report which details opportunities for the inclusion of women in various segments of the solar home systems (SHS) value chain and draws on these tenets to identify specific opportunities for mainstreaming gender equity in REUCSes.

METHODOLOGY

PA-NPSP conducted a survey of existing REUCSes in Nigeria to collect baseline data on their establishment, operations, and relationship with REA. The team conducted interviews with REUCS members and the leaders of four rural electricity cooperatives in two geopolitical zones in South-South and South-West Nigeria. PA-NPSP developed its recommendations through interviews with these and other off-grid energy stakeholders including government agencies, non-governmental organizations, and private enterprises. The report is organized as follows:

1. **Introduction:** This section provides an overview of PA-NPSP, defines the report's objectives and methodology, and introduces the case for women's participation in the energy sector.
2. **Nigeria's Rural Electricity Users Cooperatives:** This section provides a detailed description of the status of the rural electricity cooperatives in Nigeria.
3. **Women's Participation in REUCS in Nigeria:** This section describes the current state and opportunities for greater women's participation in Nigeria's rural electric cooperatives.
4. **Case Studies:** This section presents an overview of global case studies of women's participation in electric cooperatives.
5. **Recommendations:** This section provides recommendations for gender mainstreaming in Nigeria's rural electric cooperatives, drawing from examples of other successful rural electricity cooperatives.

THE BUSINESS CASE FOR WOMEN IN ENERGY

Women's equal participation in the energy sector value chain leads to more effective and efficient outcomes, greenhouse gas (GHG) emissions reduction, and higher returns on investment (USAID 2018a). In addition, companies with more women on their boards of directors are more likely to be proactive in improving energy efficiency, lowering company costs, and investing in off-grid power generation (McElhaney et al 2012). There is a wealth of evidence which demonstrates how women energy entrepreneurs play an essential role in scaling up the energy access value chain – from the promotion, sale, servicing, and financing of modern lighting and off-grid electrification solutions, to development and distribution of clean cooking technologies and fuels. (Energia 2016a).

At the International Summit of Cooperatives, women representing co-ops globally stressed the direct relationship between diversity and organizational performance. "If you invest in women, the social return is much higher than the financial investment in them," said a board member at the Malaysian National Co-operative Movement (NRECA 2016). In the West African off-grid market, off-grid companies are already reaping the rewards of gender equity and inclusion. PEG Africa, a West African asset-financing solar power firm that provides residential power systems recently introduced several gender equity practices into its operations, resulting in a rise in women leadership and a shift in business culture, all of which coincided with a 60 percent gain in revenue and a 26 percent increase in earnings (CDC 2019).

In addition to gender mainstreaming activities conducted by international donor programs, such as PA-NPSP, REA is committed to gender and social inclusion as per the REA Vision and Strategy adopted in 2020 and has integrated gender equity components into two of its flagship off-grid energy programs: the Energizing Economies Initiative (EEI) and the Energizing Education Program (EEP). EEI supports the rapid deployment of off-grid electricity solutions to MSMEs in economic clusters (i.e. markets, shopping malls). With support from PA-NPSP, the program has created 19,000 connections across 16 total markets in Nigeria and raised USD 14 million resulting in the creation of more than 300 new jobs by electrifying shops within economic clusters, nearly 1/3 of which are owned by women (REA 2021b). EEP provides clean power to 37 Federal Universities and 7 University teaching hospitals, with a target of above 127,000 students benefiting from the program. Currently, the program has recorded a total of 180 female science,

technology, engineering, and math (STEM) students who have begun their internship in nine Nigerian Federal Universities (REA 2019).

NIGERIA'S RURAL ELECTRICITY COOPERATIVES

The FGN's REA established the REUCS initiative for Nigeria using the energy cooperative model designed by the National Rural Electric Cooperative Association (NRECA) (REA 2021c). Through REUCS, REA aims to support communities to sustainably develop rural electrification projects, aligning with FGN's vision and mandate of achieving universal access to affordable and sustainable electricity to Nigeria's unserved and underserved communities. REA is responsible for community engagement and awareness campaigns which encourage rural communities across the country to form REUCSes.

Rural cooperatives, introduced in Nigeria at the start of the 20th century, exist to achieve rural economic development and serve the needs of unserved or underserved rural communities through collaborative and collective self-help (World Bank 2020). Today there is a proliferation of cooperative societies in nearly all the sectors of the Nigerian economy with agricultural cooperatives as the most popular (OGSCOFED 2021). The primary objective of a cooperative is to increase the production and income of its members by helping to provide better access to finance, raw material inputs, market information, and access to larger off-take markets (Ojimba et al. 2018).

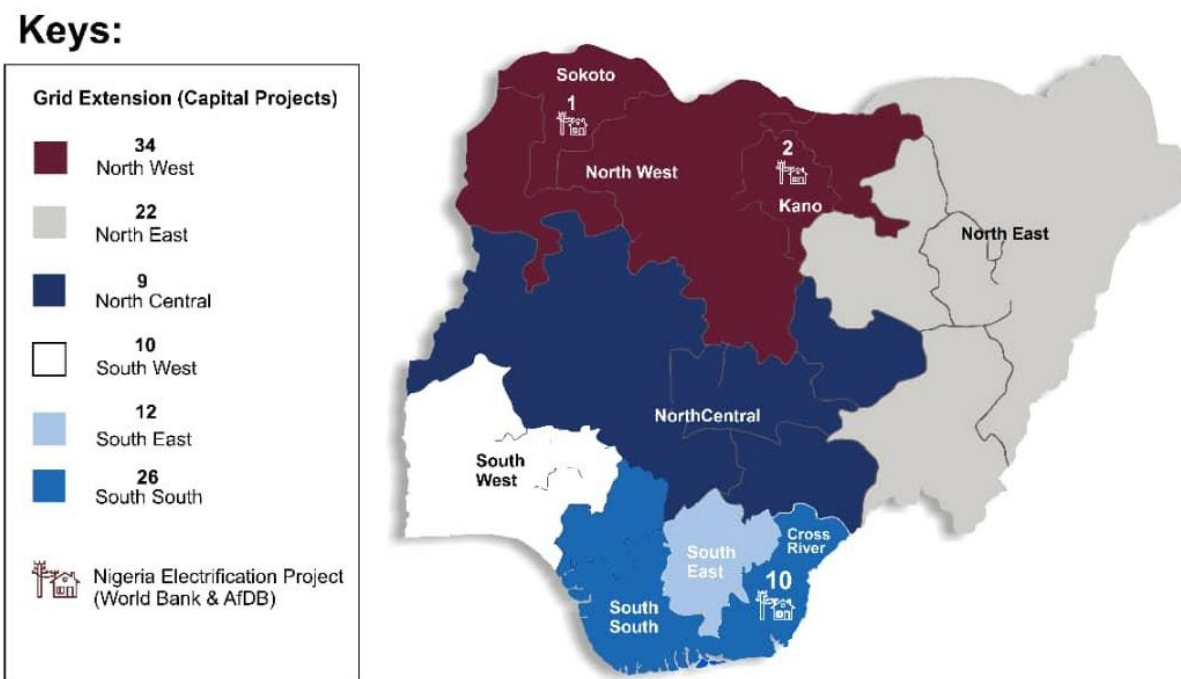
Cooperative societies are engines of collaboration and collective welfare (Altman 2015). Nigerian cooperatives are known for their ease of formation because they are low cost, perpetual in nature, and jointly owned by its members (Dogarawa 2010). While cooperatives are designed to achieve common economic, social, and cultural goals, challenges such as poor management, lack of training, corruption, and government and socio-cultural interference can stall goodwill and progress (Garandi and Hassan 2020).

REUCSes in Nigeria are non-profit electric utilities in rural communities established to provide electricity to members living in a given service area. They are owned by members of the cooperative and unlike investor-owned utilities, they run on a cost-of-service basis only (NRECA 2021). REA facilitates the establishment of REUCSes in communities for off-grid projects in Nigeria. REA initiated the formation of the REUCS for rural communities under NEP as a platform for interfacing between the electricity users and electricity suppliers and to promote more sustainable electrification projects (REA 2021). The provision of electricity under REUCS has resulted in economic growth and development of small- and medium- enterprises in REUCS service areas (REUCS 2021).

ESTABLISHMENT

The success and sustainability of any rural project lies in the effective and inclusive involvement of community members and most importantly, the community leaders. Before the commencement of an off-grid rural electrification project, REA team members, consisting of at least one woman (in practice, as there is no policy or regulation that mandates this), embark on community engagement and awareness campaigns to inform rural communities of the opportunity to form REUCS (REA 2021c). These exercises are carried out with the help of the community leaders who are subsequently involved in all the stages of the implementation of off-grid projects to ensure the buy-in and understanding of community members. During the establishment of REUCSes REA informs community members of the purpose of the electricity project, project benefits, and expectations of the community (use this link to access the [PA-NPSP REA Community Mini-Grid Program Manuals](#)). In communities where women are not allowed to speak with men, women members of the REA team engage women separately (REA 2021c). Following these initial engagement and awareness campaigns, communities may form REUCSes in accordance with the REA bylaws and are expected to register and select a promoter (a volunteer and member of the community), within two months. An inaugural meeting is held after the cooperative is registered at the office of National Civil Registration and members are elected to the management committee. Since the launch of REUCSes in 36 states across Nigeria in 2006, considerable progress has been made, with a total of 128 REUCS recorded under on-grid projects and off-grid NEP projects (Figure 1) (REA 2021c).

Figure 1: REUCS Under NEP Projects in Nigeria



GOVERNANCE

To govern the operations of registered cooperatives, REA created REUCS bylaws. REA establishes these rules and regulations for the sole purpose of guiding the operations of REUCS and to ensure the sustainability of electrification projects in unserved and underserved communities. The bylaws highlight membership rules such as: when to hold general meetings, duties of cooperative members and new membership, administration and appropriation of funds received from members' registration fees, contributions, fines, interests, and grants. The bylaws also define membership as open to men and women 18 years of age or older living within the area of utility operation. The head of the community, most often a man, has wide discretionary powers to elect credible members of the cooperative society into advisory or management capacity and on an ad hoc basis (REA-EEE 2020).

REUCS in off-grid communities are composed of household and individual members within the rural utility service area who voluntarily become members of the cooperative society. Every rural electricity cooperative in Nigeria is bound by the bylaws that explicitly outline the organizational structure, activities, and leadership responsibilities. According to the bylaws, the REUCS management committee includes a President, Vice President, General Secretary, Assistant General Secretary, Treasurer, Assistant Treasurer, Financial Secretary, and Internal Auditor – all elected and tenure-based. The bylaws also allow for the appointment of an operation and maintenance (O&M) committee which includes representatives from the community (with technical capabilities), the O&M developer, and REA (Directorate of Information and Outreach) (Figure 2). The cooperative leadership is expected to send a monthly progress report on the cooperative and highlights from general meetings to REA for record keeping (REA 2021).

COMMUNITY ENGAGEMENT AND SUSTAINABILITY

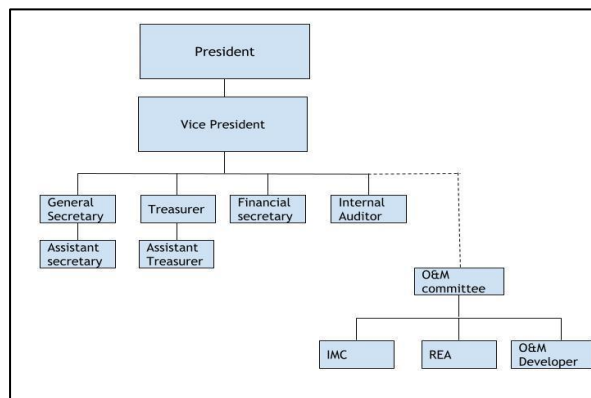
REUCSes are composed of members who live within the electric utility service area. According to the bylaws, REUCS leadership are elected positions, however, interviews with REUCS members revealed that

in some cases these leaders were appointed and not elected (REUCS 2021). REUCS leadership is typically a five-person committee which serves as a mediator between community members and electricity stakeholders (REUCS 2021). Cooperative leaders then appoint members of the cooperative, which based on interviews are predominantly men.

The ownership or management will depend on the nature of the project. For projects under the NEP, the Independent Power Producers (IPP) own and manage the utility operations of off-grid projects. They usually train one or more community members to maintain (basic maintenance such as cleaning the panels) and secure the mini-grids in addition to engaging vendors to process payment of electricity through online payment platforms. For capital projects, temporary contractors are engaged in the construction of the mini-grids. Post-construction, the communities have ownership and are responsible for maintenance and operations. REA and REUCS leadership educate the other members of the cooperative on their rights and responsibilities as electricity users, and on energy efficiency, conservation, and productive use of electricity (PUE) (REA 2021d). According to interviews with REUCS' members, there is limited engagement between REA, REUCS leadership, and REUCS members following the conclusion of this initial training except in the case of major repairs on the utility. Cooperative leaders are not organizing meetings once every three weeks as expected. These expectations are in place to maintain a sense of ownership among members and learn more about the operation, maintenance, and safety of facilities to prevent theft and vandalism of electricity equipment (REUCS 2021).

Similarly, the payment requirements for the type of project vary. Under off-grid capital projects, community members are responsible for the operation and maintenance of the grid, but do not need to pay for their electricity consumption. REUCS' members are responsible for ensuring a stipulated fee is collected from community members to enable adequate maintenance of the grid. Once fees have been given to the treasurer, he or she is responsible for paying the DISCO. However, many communities are not upholding their end of the agreement to adequately maintain the grids. Under off-grid NEP projects, community members (including those who do not belong to REUCS) receiving power pay for electricity as they consume it via a pay-as-you-go structure to electricity vendors. This ease of payment increases electricity supply to lower income REUCS' members (REA 2021d). For on-grid communities where there is no electricity, REUCSes partner with the distribution companies (DISCOs) and independent power producers (IPPs) to ensure electricity is provided at an affordable price for community members. REUCS' members are responsible for ensuring a stipulated fee is collected from community members and given to the treasurer who then pays the DISCO.

Figure 2: Rural Electricity Users Cooperative Society Organizational Structure



WOMEN'S PARTICIPATION IN REUCS

Increasing women's participation in rural electric cooperatives has the potential to drive further economic development and sustainability (Chachra 2020). Due to cultural and social norms and skills barriers, women are underrepresented in REUCSes. In the energy sector, women face occupational segregation due to cultural stereotypes about jobs they can and cannot do. They also face more obstacles in terms of accessing education, technology, and training versus boys and men. Enabling women to achieve equal footing with men and increasing their participation can be achieved through the adoption of clear gender inclusive policy framework within the larger REUCS initiative as well as individual cooperative governance and through the intentional design and implementation of inclusive actions.

Under the NEP off-grid program, REA reports the establishment of 13 rural electric cooperatives. There is limited data available on these cooperatives, their operations, aggregate membership, leadership, elections procedures, policies for gender equity, or women's participation. Of the 13 cooperatives, data on the list of members and their positions is documented for four cooperatives located in South-South and South-West Nigeria.

According to data gathered during interviews with these four cooperatives, REUCS operations are not clearly defined. REUCS members indicated that there were meetings held by REA to kick-off the cooperative and leadership was appointed and not elected. There is no documentation on the activities or progress of the cooperatives in the time since their establishment. The members of the cooperative described a communication gap between the ad hoc rural cooperative formed and REA, especially on matters of equipment repairs and maintenance.

Table I: Women's Membership and Leadership in Four Nigerian Rural Electricity Cooperatives for Off-grid Projects

REUCS	State	Total Members	% Women Members	% Women Leaders
Okhanga-Mkpansi, Ikom	Cross Rivers	51	37%	25%
Onidundun	Ogun	56	42%	33%
Fonibiri	Bayelsa	39	69%	33%
Esanma	Delta	130	50%	20%

The electric cooperative in Okhanga-Mkpansi, Ikom in Cross Rivers Nigeria has 51 members, the cooperative recorded women's membership of 37%, and one of four leadership positions held by a woman (REUCS 2021). The Onidundun REUCS in Ogun State has 56 members, 42% of whom are women, and three women on the ten-person leadership team. The Fonibiri REUC in Bayelsa State has 39 members of whom 69% are women; there are two women on the six-person leadership team. The Esanma REUCS in Delta State has 130 members, 50% are women, and two women sit on the ten-person leadership committee. According to interviews, the women who occupy leadership positions are often women group leaders and do not take on technical roles but instead minor positions such as assistant treasurer or secretary (REA 2021i).

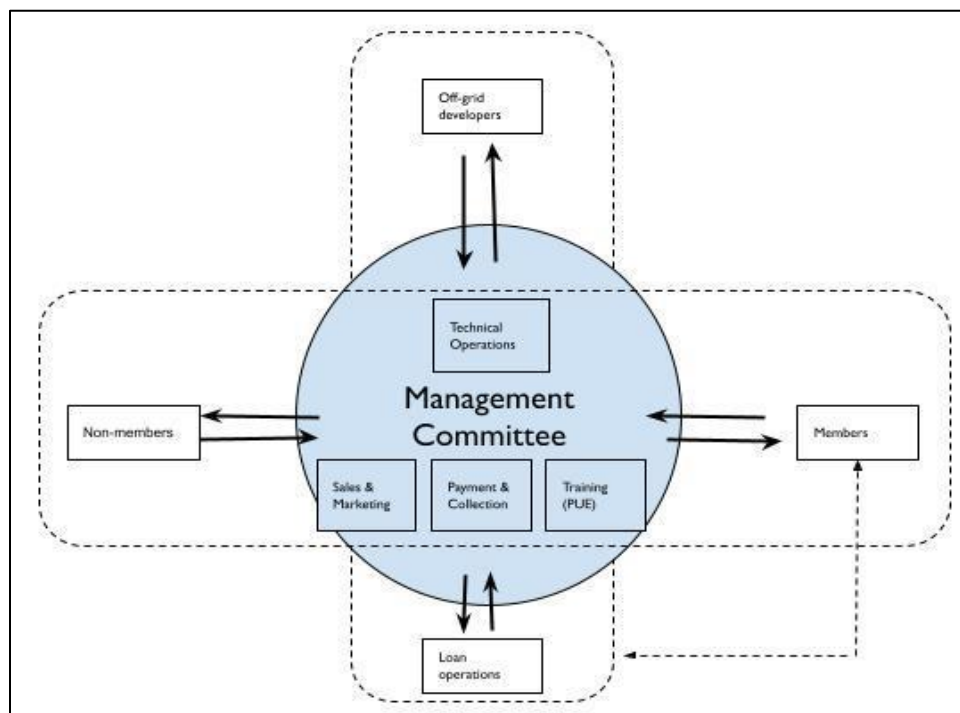
According to the bylaws, there are ten REUCS leadership positions and members must be elected. Data gathered during interviews indicated that women have been appointed and only for the treasurer, secretary, and vice president roles (REUCS 2021). Women are participating as members and in minor leadership roles currently REUCS but there is an opportunity for this participation to be expanded generally and to include technical roles (REA 2021c). Interviewees indicated the current gap in women's

participation is due to cultural stereotypes (e.g. women cannot serve in leadership positions over men), and weak implementation of REA gender mainstreaming policies, resulting in underrepresentation of women in leadership and technical roles.

OPPORTUNITIES FOR GREATER PARTICIPATION

There is an opportunity to expand women’s roles and participation in REUCSes across Nigeria. Figure 3 provides an overview of the REUCS leadership opportunities and the overarching management structure of leaders, members, and non-members.

Figure 3: REUCS Roles and Governance



Case studies on women’s participation in rural electricity cooperatives (see below) globally present the opportunity to create new roles for women in leadership, maintenance, and other related services in rural electricity cooperatives. The tables below discuss the opportunities and advantages for increasing women’s participation in each of the different segments of REUCS management.

REUCS Committee: Govern REUCS operations and administration.

Position(s)	Advantages of Increasing Women’s Participation
<ul style="list-style-type: none"> • Vice President • Financial secretary • Treasurer • Secretary 	<p>Having more women in leadership positions increases gender diversity and leads to increased profitability (USAID 2015).</p> <p>Women build systems to support and empower all community members (Zalis 2019).</p> <p>Women are users of energy in homes and often make energy use decisions, a higher representation enhances efficiency of decision making due to the shared knowledge among women.</p>

Technical Operations: Manage installation and maintenance of off-grid projects and equipment.

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">Electrical EngineerTechnician	<p>Women in technical roles have the capacity to increase innovation and enhance problem-solving (Montilla 2020).</p> <p>When women gain technical skills, they can establish relationships with other women within the communities to help them gain better understanding of rural electrification programs (REA 2021).</p>

Sales & Marketing: Manage inventory of electricity units and equipment, respond to member inquiries, keep accurate records of member accounts, develop strategies for engaging and recruiting new members.

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">Sales RepresentativeMarketing Representative	<p>Women have a strong understanding of the needs and priorities of other women members of the communities which can increase sales of PUEs (REA 2021)</p> <p>Women who excel in sales and marketing in REUCSes demonstrate expertise from training and educational background and not gender.</p>

Payment & Collections: Accept and collect payment from members and consumers.

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">Collections Agent	<p>Women tend to have intimate knowledge of the other women in the community and often have better tactics for collecting payments from electricity users (REA 2021).</p> <p>Women can help improve members' experience by designing women-friendly flexible payment terms for electricity use and PUE rental.</p> <p>Women have lower credit risk than men; some may require a more flexible electricity use payment schedule, e.g., repayment terms for PUE (Montalvo 2019)</p>

Productive Use of Electricity (PUE) Training: Provide training for community members and consumers on productive use of electricity and appliances and give members advice on what products or services are most suitable for them.

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">PUE Trainer	<p>Women in these positions have a strong understanding of the energy needs and consumption patterns of electricity users in their community (ARE-ENERGIA 2017).</p> <p>Stringent policies that emphasize women inclusion in off-grid training can result in a greater number of women ambassadors for clean energy, productive use, energy efficiency, and conservation measures (Energia 2016b).</p>

Loan Operations: *Design and implement financing schemes.*

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">• Loan Agent	<p>In global case studies of rural electricity cooperatives loan systems for members present an opportunity for women who are members of the cooperative to access finance to expand their businesses (Energia 2016b).</p> <p>Where women serve as loan officers there is the opportunity to increase the integration of gender equity into the approach to lending. Women can design schemes such as micro credit, training and continuous mentoring, linkages with financial institutions, and support in preparing bankable business plans for women entrepreneurs.</p>

REUCs Members: *Aid the REUCS committee and are engaged on an ad hoc basis.*

Position(s)	Advantages of Increasing Women's Participation
<ul style="list-style-type: none">• Member	<p>Engaging women increases the opportunity for them to promote the sustainability of the cooperative within their community (REA 2021)</p> <p>The economic and social return of increasing the participation of women in REUCSes is much higher than the financial investments. Global case studies demonstrate that having more women in rural electricity cooperatives can have a lasting impact on the economic and social development of communities (USAID 2015).</p>

LESSONS FROM AGRICULTURE AND CREDIT COOPERATIVES

Communities and governments establish rural cooperatives to perform a variety of roles in service of the common economic, social, and cultural needs of cooperative members. Successful rural cooperatives in sectors other than electricity (e.g. agriculture) can inform the strategies and implementation of Nigeria's rural electricity cooperatives. In particular, evidence suggests that there is a correlation between women's participation and increased rural economic development in agricultural cooperatives.

Agriculture Cooperatives. Multi-purpose rural agriculture cooperatives formed in the 1990s in Nigeria demonstrated high levels of women's participation (Akinwumi and Abdulahi 2000). The cooperative activities catered to the needs of the farming members, who were mostly women. Cooperatives conducted yam and cassava farming as well as palm oil processing. Cooperative leaders liaised with the government to obtain loans at minimal interest rates for their members. This enabled the purchase of fertilizers and farming tools for increased production resulting in high volumes of affordable crops (Okonkwo, Onyeze, & Ochiaka 2019). An example of one such multi-purpose agriculture cooperatives is Aladinma Umukabia Ogodo Multi-purpose Cooperative Society, an association of over 200 women cassava farmers operating in Imo State. Through an agricultural training program, the members learned how to improve their cassava yield through the use of fertilizers and consequentially augment their income. Women within this cooperative, headed by a female Vice President, reported higher incomes and better care for children.

The Association of Women in Trade and Agriculture (AWITA) is another example of a cooperative which encourages women's participation and supports women working in the agricultural sector. This cooperative is registered as a non-governmental organization with the aim of harnessing the richness of Nigerian women's contributions to the agriculture sector and promotes women's empowerment, gender equality, and impact through strategic trade and agricultural engagements. AWITA is present in all 36 Nigerian states and is active year-round with projects and programs under the Federal Government and Regional Commissions for Trade and Agriculture. AWITA advances the interests of its members through annual summits, education programs, leadership conferences, periodic network meetings, mentorship programs, capacity building, and financial empowerment activities.

The Women Farmers Advancement Network (WOFAN) founded in June 1993 is another women's cooperative in the agricultural sector. WOFAN functions through partnerships with mobilized, registered multi-purpose cooperatives, community-based organizations, community service groups, the private sector, and research institutions. WOFAN is present in Local Government Areas (LGA) across seven Northern States working at the community level with self-selection groups to achieve its objectives. WOFAN assists rural groups to identify their needs and develop action plans for intervention. Each group chooses its leaders including presidents, secretaries, and treasurers, and is responsible for the implementation of projects and trainings. Past projects include an improved rice production and processing project, in partnership with Competitive Africa Rice Initiative (CARI) in four local government areas of Kano State. Through this project, 240 female rice farmers and processors learned how to turn their farming and processing activities into established businesses by leveraging over 20 climate-smart groundnut seed varieties suitable for each region of Nigeria, operating groundnut shelling machines, and using modern tools to track and review their business performances. Through mechanization knowledge and improved seed varieties, farmers could boost the quality of their yields, making their produce more acceptable to off-takers thereby increasing their potential incomes and enhancing their socioeconomic well-being.

Credit Cooperatives. One of the longest standing types of cooperative globally and in Nigerian are thrift and credit cooperatives. These served as the foundation of capital formation in the lower Cross River Region in Nigeria (Abia 2000). In credit cooperatives, loans and credit are provided to members with terms and conditions more flexible than they could obtain through commercial banks and other financial institutions (Otto 2011). A study carried out in the Northern Senatorial district of Cross River State on credit cooperatives as alternative sources of funding for economic activities by traders, reported

increased income of women traders due to increased sales of crops from their farms. Loans accessed by the women traders enabled the purchase of fertilizers and farming tools for higher crop yields. 86 percent of the women traders were also members of agricultural cooperatives (Beshel 2016) (Okonkwo, Onyeze, & Ochiaka 2019).

A credit cooperative in Ohafia Local Government Area of Abia State in Nigeria supports women's economic empowerment through the provision of financial assistance and training. The cooperative assisted women members with direct loans, as well as assisting them to obtain loans from agricultural and cooperative banks, government, and a World Bank poverty alleviation program (Fadama Project). Training program topics included farming, bookkeeping, accounting, agricultural processes, use of mechanized equipment, modern farming techniques, storage solutions, and food preservation. (Okonkwo, Onyeze, & Ochiaka 2019).

The examples above demonstrate the potential added value and benefits of cooperative societies for women in Nigeria. Leaders of rural electricity cooperatives can look to agriculture and credit cooperatives for best practices including actively encouraging women's participation, designing programs and objectives specifically around women's empowerment, cross-walking services provided between cooperatives such as access to credit and agricultural training programs, and emphasizing personal and professional development as a vehicle for increased income and improved quality of life.

CASE STUDIES

Some notable examples of initiatives and activities leveraging the power of rural electricity cooperatives to drive rural electrification and gender mainstreaming globally include the Lanao del sur Electric Cooperative Inc. (LASURECO) in the Philippines, Electricidade de Mocambique (EDM) in Mozambique, Women Engage for Common Future (WECF), and the Energia's Economic Empowerment Programme.

THE PHILIPPINES: LANA DEL SUR ELECTRIC COOPERATIVE INC. (LASURECO)

LASURECO generates and distributes electricity in one of the provinces on the island of Mindanao in the Philippines covering an area of 3,959 km² and 51,400 customer connections. In 2017, 18 percent of the 330-person workforce were women, and only 5 women senior managers. In 2017, the cooperative appointed a female Managing Director and within four months the cooperative achieved several noteworthy milestones. Among these, LASURECO introduced an automated collections process resulting in a 30 percent increase in total collections. In addition, six municipalities that had been without power supply since 2013 were reconnected. These accomplishments had a positive impact on men's perceptions of their women coworkers. Men employees at the utility said their women counterparts showed exceptional leadership, excellent communication skills, a strong dedication to success, and high productivity. To increase gender equity, LASURECO is working with USAID through the *Engendering Utilities* initiative to provide tailored coaching to the staff on gender equality and best business practices (USAID 2015).

MOZAMBIQUE: ELECTRICIDADE DE MOCAMBIQUE

Electricidade de Mocambique (EDM), a Mozambican power utility, is an example of a utility working to boost women's involvement in the workforce. Nearly 30% of Mozambique's population has access to electricity because of EDM. Women make up 18% of the utility's 3,400 employees, and few serve in technical, engineering, or leadership positions. USAID's *Engendering Utilities* Program started supporting EDM in 2018 to address these gender disparities. The utility has expanded its pool of eligible candidates, enhanced business efficiency, and increased economic prospects for women in Mozambique's historically men-dominated power industry by changing its recruitment and hiring methods. EDM is targeting a workforce with 40% women by 2030. To help accelerate progress toward this goal, the utility set a goal of filling 50% of all new positions with women candidates. Women will fill 1,500 of the jobs that the utility

aims to generate by 2030. EDM received support from *Engendering Utilities* coaches to change job advertisement language, improve candidate application screening procedures, implement targeted recruiting practices, and involve technical institutions in order to bring more qualified women into the workforce. (USAID 2021c).

WOMEN ENGAGE FOR COMMON FUTURE

Women Engage for Common Future (WECF) is a non-profit network dedicated to gender, justice, and a healthy planet for all with an international network of over 150 women's and civil organizations implementing projects in 50 countries. The organization has worked with and assisted in creating renewable energy cooperatives in Morocco, Kyrgyzstan, Tajikistan, and Uganda. WECF holds training sessions for rural women on the use and dissemination of simple, affordable solar solutions like cookers, dryers, and ovens. They have selected 40 young women technicians, trained them on solar thermal technology manufacturing, and assisted them to establish energy cooperatives. These cooperatives allow beneficiaries of this project to manufacture and market solar equipment to rural and urban areas. In order to ensure citizen ownership of technologies and active citizen's engagement, WECF has been working with agricultural cooperatives, particularly their women and young cooperative members and potential members, in Luweero, Kiboga, and Kyangwanzi, Uganda. The cooperatives operate newly installed solar PV modules for light and phone charges in their jointly run storage hall, a solar pump for watering coffee seedlings of high quality at their nursery and a briquette machine on a renting basis. As a result, women have become ambassadors for briquettes, water tanks, and biogas (WECF 2021). In Kyrgyzstan and Tajikistan, the organization has worked with women farmers, water providers, renewable energy cooperatives, and eco-tourism operators to provide clean and sustainable drinking water to villages across the two countries using solar water pumps and solar water heaters.

ENERGIA'S ECONOMIC EMPOWERMENT PROGRAMME

Partner organizations in Africa and Asia receive funding through the international gender and energy network, Energia, to provide financial and technical assistance for women-led micro and small companies. The Women Economic Empowerment Programme supports women energy enterprises and enhances the use of energy in businesses through the productive use of energy. The program strategy is a step-by-step process with capacity building, systematic screening and recruitment of promising women entrepreneurs, and provision of financial assistance through loan guarantee funds, microcredit, local cooperatives, and self-help groups. Energia collaborates with 3,730 women entrepreneurs in the delivery of energy services and productive uses of energy and as a result have been able to reach over 1.7 million consumers. (Energia 2016b)

RECOMMENDATIONS

Rural electricity cooperatives drive social and economic development in rural communities across Nigeria by providing critical access to electricity service. They also offer opportunities for social and economic empowerment for women across the country. Rural electricity cooperatives that encourage women's participation have the potential to drive more equitable and sustainable outcomes for their members. There is a need to support rural electricity cooperatives in gender mainstreaming, increasing women's participation and offering women opportunities for employment, improved livelihoods, and access to productive resources and services.

To improve on the REAs efforts to mainstream gender with a long-term objective of eliminating gender inequalities in rural communities, REA should consider implementing the following recommendations.

- **Collect Gender Disaggregated Data.** REA should increase data collection, monitoring, and engagement of REUCSes including through collecting gender disaggregated data on REUCSes membership, leadership, and management committee roles. This will allow REA to better design interventions for increasing women's participation and enhancing REUCS operations.

- **Increase Awareness through Community Outreach:** REA should conduct community engagement and awareness activities within REUCSes on the benefits of engaging women and how this can be done through both policy and practice. Increased awareness for and adoption of these policies has the potential to make communities safer for women, eliminate implicit biases against women, and improve the community members knowledge on rural electrification. REA should also strengthen the visibility of diverse women's roles in REUCS through communications initiatives and supporting projects that enable women to become agents of change through their participation in the energy sector.
- **Provide Technical Training to Women Leaders and Members:** REA should provide development opportunities for women leaders and REUCS members through technical, leadership and financial training. This will increase the number of qualified women positioned to take on leadership positions as well as increase employee retention.
- **Require Participation and Leadership Quotas for Women:** REA should incorporate a gender threshold to encourage women's participation, specifically in higher-level and more technical leadership positions (e.g. X% of women on the cooperatives board of directors). REA should also monitor and enforce REUCS elections and see that leadership positions are indeed elected by all members (men and women equally) rather than appointed.
- **Institute Policies and Protections for Gender Equity and Security:** REA should design and implement protection policies for women in rural communities, including sexual harassment and anti-discrimination policies. Such measures create safe environments for women, expanding opportunities for equal participation in activities across the REUCS value chain, and driving greater productivity for all members.
- **Provide Financing Support for Women Members:** REA should introduce innovative financing and electricity payment terms (e.g., longer loan terms, flexible interest rates) for women members of REUCSes. This will drive greater access to finance for women improving business performance and loan repayment rates.
- **Establish Women-only REUCSes:** REA should encourage the establishment of women-only REUCSes in communities where there are cultural barriers preventing women's participation. This will lead to more women pursuing employment in the cooperatives and increase the number of women elected in the cooperative management positions.
- **Create Mentorship Programs:** REA should create opportunities for young women by supporting mentorship programs within REUCSes, encouraging young women to acquire technical, management, leadership skills by tapping into the existing knowledge, skills, and experience of senior or high performing employees. This will increase skills and expertise of members of the community and drive the development of expanded professional opportunities for women.

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