
Gender Assessment

SAP013: Scaling Smart, Solar, Energy Access Microgrids in Haiti

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EARTHSPARK INTERNATIONAL SPV
Scaling Smart, Solar Energy Access Microgrids in Haiti Project

GENDER ASSESSMENT AND ACTION PLAN

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INTRODUCTION

This gender assessment and action plan will provide a summary of the gender environment in Haiti with a specific focus on the role of energy access, as well as the gender action plan and projected gender impact of the Project *Scaling Smart, Solar, Energy Access Microgrids in Haiti* proposed by EarthSpark International (ES) and supported by the Nordic Environment Finance Corporation (NEFCO) as the Accredited Entity.

The overarching objective is to identify and implement strategies to mainstream gender equity outcomes throughout the Project. The gender assessment and action plan adhere to the principles of EarthSpark International's United Nation's Framework Convention for Climate Change Momentum for



Figure 1: Click to watch a brief UNFCCC video on EarthSpark's 'Feminist Electrification' approach in Haiti

Change awarded "feminist electrification" methodology. EarthSpark's gender commitments also align with NEFCO's proactive and preventative gender mainstreaming actions¹, which also share objectives with the Sustainable Development Goals, particularly Goal 5 – Achieve gender equality and empower all women and girls.

Enèji Pwòp S.A. is an EarthSpark International spin-off which operates as a Haitian microgrid utility for EarthSpark's current grids and is expected to participate in the Project in a similar role.

'FEMINIST ELECTRIFICATION' BACKGROUND AND METHODOLOGY

EarthSpark developed its model of "feminist electrification" from its work in rural Haiti.

Feminism² is the advocacy of women's rights on the grounds of political, social, and economic equality to men. Electrification³ is the process of powering by electricity and is usually associated with changing over from another power source. The broad meaning of the term, such as in the history of technology and economic history, usually applies to a region or national economy.

The areas of opportunity for gender-related engagement in the electrification process fall into at least five categories:

- infrastructure planning,
- training and employment,
- support for small and medium-sized enterprises (SMEs),
- domestic energy use, and

¹ NEFCO, Gender Policy, https://www.nefco.org/wp-content/uploads/2019/04/NEFCO_Gender-Policy_February-2018.pdf

² Lexico, definition of *feminism* <https://www.lexico.com/en/definition/feminism>

³ Lexico, definition of *electrification* <https://www.lexico.com/en/definition/electrification>

- community resource availability.

The arrival of electricity service in a town signals a significant moment of technical, social, and economic change. Residents put away their candles and kerosene lamps and – for the first time - flip switches for electric lighting. People charge phones in their own homes and launch businesses to charge phones of people living beyond the new grid. Small appliances like radios and DVD players which had previously been impossible or cumbersome to operate – requiring a battery to be charged and transported or the repeated purchase of non-rechargeable batteries – become more commonplace, and, depending on the level of electricity service available, new opportunities in home appliances, refrigeration, and mechanized labor may emerge.

The economic benefits of electricity have been well documented, but there has been relatively little attention paid to the gender outcomes of the arrival of electricity in a town. This is changing. Community leaders, non-governmental organizations, and grid developers can leverage the social disruption that is electrification to improve the standing of women and girls in the community or, at a minimum, at least ensure that the standing of women and girls is not diminished.

Energia, an international organization specifically promoting women’s empowerment through the issues of energy, points out that globally women are largely absent from energy-related infrastructure decisions. This is despite research that indicates that involving women in the planning and implementation phases of infrastructure development improves outcomes not only for women and girls but also for men and boys and for the funders (and overall sustainability of the project).

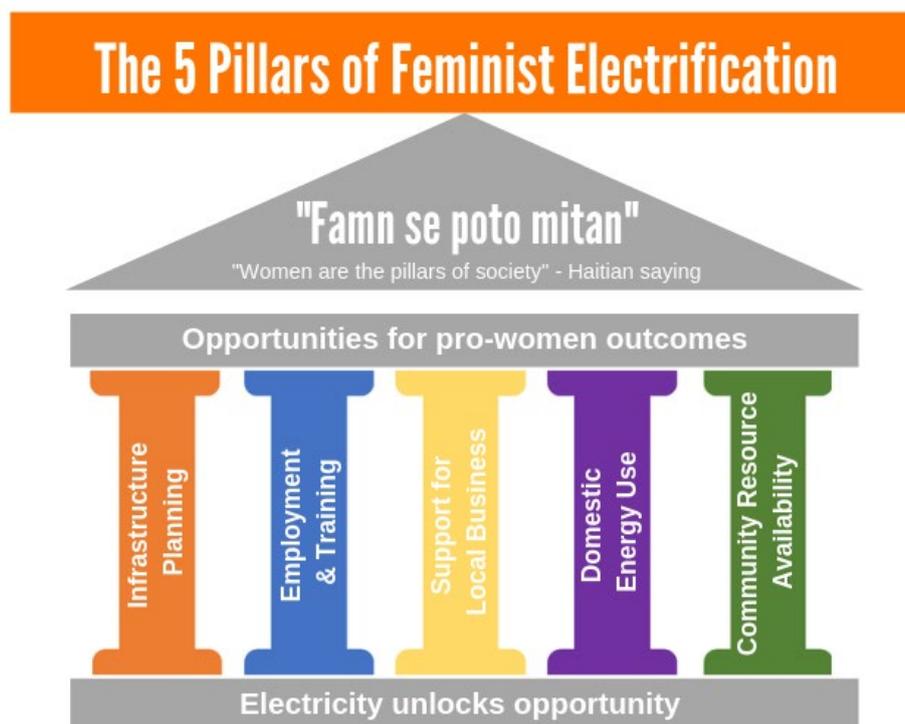
- In infrastructure projects, a review of World Bank projects⁴ showed that: Women’s participation in design and decision-making in water users’ associations or rural electrification cooperatives improves governance, management, cost recovery and production
- Women’s participation increases the effectiveness, quality and sustainability of infrastructure rehabilitation and maintenance; provides a high economic rate of return (31 percent); and creates an improved work environment, with less violence and drinking in project sites.

There are many reasons why gender has been a neglected factor in energy planning. Many planners do not fully understand that energy impacts men and women differently. One explanation of why there is a lack of understanding is that energy professionals are nearly all men, so women are not able to bring issues that affect them to the forefront.⁵

⁴ Energia, Mainstreaming Gender in Energy Projects: A Practical Handbook: Resource Pack, <https://genderandenvironment.org/resource/mainstreaming-gender-in-energy-projects-a-practical-handbook-resource-pack/>

⁵ Energia, Concepts in Gender and Energy, <https://www.energia.org/cm2/wp-content/uploads/2016/09/Module-1-revised-june-2007.pdf>

After years of research and development, EarthSpark launched Haiti's first pre-pay microgrid in Les Anglais in 2012. This grid was later expanded to 450+ customers receiving 24-hour electricity run by a solar-hybrid model. EarthSpark is currently building its second grid in Tiburon and has been in pre-development discussions and planning in several nearby towns. The grids EarthSpark builds are run by local spin-off Enèji Pwòp, SA ("Enèji Pwòp").



In general, access to electricity improves people's lives by improving health, education, and economic outcomes. At the same time, local women are often under-represented in the decision-making process leading up to and structuring electrification. Since electrification of a town is by definition a cultural disruption, there is an opportunity to thoughtfully design the process to ensure "pro-women" outcomes. Not only is serving women's needs an important tool in reducing extreme poverty; it also improves the viability of rural electrification business models. It is thus imminently within EarthSpark International's mission to use a 'feminist electrification' lens in grid development planning and operations.

In the towns where EarthSpark is active, both men and women take leadership roles in local organizations and economic activities, but gender norms rest – as they do in all cultures – on a complex set of cultural patterns and local circumstances. Women tend to manage household finances related to agricultural production and local trade. There remains, however, a trend towards male dominance in decision-making at the high levels of local governance.

EarthSpark has curated a 'feminist electrification' methodology, implementing 5 pillars of pro-gender engagement across all energy access projects. This work was recognized as a 'Lighthouse Activity' by the United Nations Framework Convention on Climate Change's Momentum for Change Award. EarthSpark has since created a 'feminist electrification' toolkit to recommend gender best practices to other energy access practitioners. This same framework will be implemented across the Project.

Table 1: Feminist Electrification Gender Engagement Opportunities fall into 5 categories

Gender engagement opportunities	Areas of impact
Infrastructure planning	Increasing women's roles in planning
	Ensuring that women's priorities are registered
	Ensuring that the grid is built and operated in ways that meet women's needs
Training and employment	Increasing women's capacity in the technical workforce
	Directly increasing professional opportunities for women as employees
	Indirectly increasing professional opportunities for women by demonstrating women's abilities as capable technicians
SME promotion	Increasing women's income by increasing profits of women-led SMEs
	Increasing women's opportunities by increasing training and capacity building for SME development
	Increasing women's opportunities by expanding financing to viable women-led SMEs
Domestic energy use	Improving health by decreasing women's exposure to indoor air pollution caused by kerosene
	Improving health and reducing drudgery by offering electric alternatives to cooking by charcoal
	Increasing usable work and leisure hours by offering electric lighting
Community resource availability	Improving women's health by making electric lighting and tools in child birthing rooms possible
	Improving women's safety by powering electric street lights

I. GENDER CONTEXT ANALYSIS OF THE PROJECT

The country of Haiti has a population of 10.98 million people (50.6% are women). The Government of Haiti established quotas in 2012 and 2015 for increased female representation in national political institutions. Despite recognizing the need to improve Haiti's gender context, gender-based violence remains prevalent, institutions have a low capacity for the legal protection of women and girls and a disproportionately low number of rural girls and women complete high school education or pursue further training and employment.⁶

“While Haiti’s Constitution protects women from workplace discrimination as well as physical and sexual abuse, and guarantees the right to political participation, in practice women routinely face exclusion and harassment in public and private life.”⁷

The United Nations in Haiti has a working history with the Government of Haiti to improve the capacity to promote, encourage, and execute gender equality initiatives.⁸ Target areas include:

- Eliminating violence against women and girls from public and private life
- Capacity building of vulnerable women
- Feminization of poverty
- Women participation in and access to leadership and decision-making
- Access to healthcare including sexual and reproductive health
- Access to education, and
- Reforming economic and property rights

In 2016, USAID conducted a gender assessment of Haiti, identifying the country's regulatory environment for gender policies. While it recognizes formalized efforts towards gender-mainstreaming policies it also highlights the cultural and legal challenges to meaningful progress.

“Haitian organizations fighting for women’s rights have made strides in both advocacy, including the denunciation of practices harmful to women, and in pushing forward important legislation and policies. However, the implementation of conventions remains relatively low. Existing domestic legislation that may conflict with treaties Haiti has ratified often goes unchanged, as there is no systematic

⁶ USAID, Gender Equity and Women's Empowerment <https://www.usaid.gov/haiti/gender-equity-and-womens-empowerment>

⁷ USAID, Gender Equity and Women's Empowerment <https://www.usaid.gov/haiti/gender-equity-and-womens-empowerment>

⁸ UNDP, UN backs Haiti to boost women's participation in political, institutional and economic life, <http://www.ht.undp.org/content/haiti/fr/home/presscenter/pressreleases/2016/03/09/l-onu-soutient-haiti-pour-renforcer-la-participation-des-femmes-dans-la-vie-politique-institutionnelle-et-economique>

approach in place to alter it. Amendments to domestic law in response to treaties is often piecemeal”⁹

More recently, the UN in Haiti, the Government of Haiti, and the European Union launched the Spotlight Initiative with the direct imperative to accelerate the achievement of the SDG’s and specifically pro-gender outcomes.¹⁰ The pillars of this initiative identify gender-mainstreaming actions targeting the following:

- Legislative and policy frameworks
- Institutional strengthening
- Prevention
- Services
- Data
- Women’s movement.

The Haitian branches of UNFPA, UN Women, UNDP, and UNICEF have similarly committed to supporting pro-gender capacity building and support the Government of Haiti’s progress in developing a Gender Equality Policy, Action Plan for Gender Equality, and a National Plan to Combat Violence Against Women.¹¹

45% of the population lives rurally and less than 10% of that population has access to grid electricity.¹² With less than half of the country electrified, rural communities are roundly exposed to the consequences of energy poverty. Reliance on dirty and expensive energy alternatives places upward pressure on local environments, threatens health, and inhibits local economic development. As extreme weather events occur more frequently, the poorest Haitians, including low-income women, children, and the elderly, are particularly vulnerable. Haiti has been cited as the 6th most vulnerable country to climate change.¹³ The gender-energy-poverty nexus reveals how women are disproportionately impacted by energy poverty and a lack of climate adaptation and mitigation.

Growing the energy access sector in Haiti for the last decade, EarthSpark International has also mapped the gender norm disruption potential and opportunities for pro-gender outcomes when an EarthSpark grid project arrives in a community. The 5 pillars of ‘feminist electrification’ are a useful framework for representing how EarthSpark’s current activities touch the gender-energy-poverty nexus in Haiti (Sub-component 2.3).

1. Infrastructure Planning

⁹ USAID, Haiti Gender Assessment: Volume 1-Gender Assessment Report 2016, <https://banyanglobal.com/wp-content/uploads/2017/07/USAID-Haiti-Gender-Assessment.pdf>

¹⁰ UNSP Haiti, A new transformative program to combat violence against women and girls in Haiti, <http://www.ht.undp.org/content/haiti/fr/home/presscenter/pressreleases/2019/un-nouveau-programme-transformateur-pour-lutter-contre-les-viole.html>

¹¹ UNFPA, UNFPA, UN Women, UNDP and UNICEF, Haitian branches, reaffirm their commitment to work with Haiti to eliminate violence against women and girls, <https://haiti.unfpa.org/en/node/37301>

¹² World Bank, World Bank Open Data, <https://data.worldbank.org/>

¹³ UNFCCC, Improving Climate Resilience in Haiti, <https://unfccc.int/news/improving-climate-resilience-in-haiti-low-elevation-coastal-zones>

Gender mainstreaming in Infrastructure Planning involves:

- Increasing women's roles in planning
- Ensuring that women's priorities are registered
- Ensuring that the grid is built and operated in ways that meet women's needs.

While surveying another microgrid developer in Haiti, a lack of women's participation in various decision-making positions was identified. Reasons for this include gendered assumptions about ability and interest in the work as well as the closed circle pathways to power.

As detailed in the Stakeholder Engagement Annex (Annex 20), EarthSpark leverages a multi-stage pre-development process in targeted microgrid towns which focuses on identifying energy needs, particularly differentiated needs for women and other vulnerable groups. Supporting these face-to-face customer surveys are consultations with the municipality and importantly the establishment of representative Energy Committees to further highlight opportunities to ensure that planned infrastructure provides equal opportunity for benefits to all members of the community (Output 2.1.1). The EC facilitates communication between EarthSpark, Enèji Pwòp, and grid customers. It provides feedback to Enèji Pwòp as well as gets the word out about community meetings, job openings, and other issues pertinent to grid operations. Gender parity in the EC is built into the by-laws.

Further, both before and during operations EarthSpark regularly holds community meetings to inform grid customers of plans for grid development as well as on-going grid updates (Activity 2.1.2.1). These meetings are held on weekends during times when most customers can attend. After feedback from the community, it was decided to hold meetings in several locations so community members would not have to travel far.

In addition, 75% of the Enèji Pwòp board members are women, ensuring a women's voice in all company-wide decisions. EarthSpark International also conducts thorough pre-development surveying of the community to ensure energy needs are identified and the grid is designed accordingly. In EarthSpark's inaugural Les Anglais grid, approximately 50% of households have a woman as the head of the household. Women's procurement of biomass and other alternative energy for household use, including cooking is just one instance of gendered energy needs in Haiti. EarthSpark's surveying and community engagement strategies ensure women are equal participants of the electrification process (Output 2.1.2).

2. Training and Employment

Gender mainstreaming in Training and Employment involves:

- Increasing women's technical capacity in the workforce
- Directly increasing professional opportunities for women as employees
- Indirectly increasing professional opportunities for women by demonstrating women's abilities as capable technicians.

In Haiti, 64% of women are participating in the labor force compared to 72% of men. Women unemployment is at 17% and 11% for men compared to 4% and 3% respectively in

the United States.¹⁴ While recruiting, Enèji Pwòp recognized women's reluctance to apply for technical positions due to a lack of confidence in ability or the perception that technical roles are for men. Energy poverty has limited access to quality education and training, making it difficult for rural job seekers to gain a competitive edge in urban employment markets.

EarthSpark and Enèji Pwòp strive to provide equitable workplaces (Output 1.3). In terms of full-time staff administering and operating Enèji Pwòp's work, there are 4 women employees and 5 male employees. There are 2 women grid ambassadors, 2 women in administrative roles, 4 male security guards, and 1 male technician.

Employees are cross-trained on many different aspects of the company. For example, the grid ambassador can also carry out home installations and troubleshoot customer problems. All non-security staff are on-hand and trained to participate during grid installations as needed, sell energy credits, sign up customers, and perform other grid maintenance tasks.

In an effort to continually cross-train and open opportunities for professional growth, staff members are regularly sent to trainings, conferences and forums relevant to energy access, solar energy and microgrids.

Anecdotes of older men and young girls in the community reveal how exposing the community to a woman grid ambassador who can execute technical and administrative tasks challenges long-held notions of what local women can achieve.

The Enèji Pwòp employee manual has a Discrimination and Harassment Policy, which states:

Enèji Pwòp is an "equal opportunity employer." Enèji Pwòp will not discriminate and will take "affirmative action" measures to ensure against discrimination in employment, recruitment, advertisements for employment, compensation, termination, upgrading, promotions, and other conditions of employment against any employee or job applicant on the bases of race, creed, color, national origin, or sex.

Enèji Pwòp is committed in all areas to providing a work environment that is free from harassment. Harassment based upon an individual's sex, race, ethnicity, national origin, age, religion or any other legally protected characteristics will not be tolerated and will be grounds for disciplinary action. All employees, including supervisors and other management personnel, are expected and required to abide by this policy. No person will be adversely affected in employment with Enèji Pwòp as a result of bringing complaints of unlawful harassment.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute harassment when (1) submission to or rejection of such conduct is made either explicitly or implicitly a term or condition of an individual's employment; (2) submission to or rejection of such conduct by an individual is used as the basis for decisions about employment, promotion, transfer, selection for training,

¹⁴ World Bank, World Bank Open Data, <https://data.worldbank.org/>

performance evaluations, benefits, or other terms and conditions of employment; or (3) such conduct has the purpose or effect of creating an intimidating, hostile, or offensive work environment or substantially interferes with an employee's work performance.”

Starting with the Tiburon generation system build, EarthSpark began requiring that local sub-contractors ensure at least 20% of their labor force is women (Output 1.1 and Output 1.2). EarthSpark will continue with this sub-contractor requirement throughout the Project. This has become a key element of stakeholder engagement during construction and design particularly with EPCs (Annex 20 – Stakeholder Engagement). Enèji Pwòp also uses recruitment materials and approaches that encourage women applicants. “Women strongly encouraged to apply” is included in job postings, and women-centered recruitment meetings are occasionally held to specifically answer women’s questions and encourage female applicants.

3. Small and Medium-Sized Enterprises

Gender mainstreaming in Small and Medium-Sized Enterprise Support involves:

- Increasing women’s income by increasing profits of women-led SMEs
- Increasing women’s opportunities by increasing training and capacity building for SME development
- Increasing women’s opportunities by expanding financing to viable women-led SMEs.

Energy poverty inhibits economic growth. Access to affordable, reliable energy opens opportunities. EarthSpark customers have reported savings of 80% for households and 50% for businesses on pre-grid energy spending once connected to EarthSpark’s Les Anglais grid. Without grid electricity, businesses without reliable and affordable energy are limited in the scale and quality of service they can provide. Agricultural production is a prime example of the lost economic opportunity due to energy poverty.

When assessing the division of labor between genders in communities like Les Anglais, men will often pursue traditional employment paths. This includes moving to urban centers to seek better employment prospects while the family remains in the rural home. Women in rural communities typically fulfill domestic duties including child-rearing and sometimes run a pico-business for additional income.

For an SME to be considered women-led, the enterprise must have:

- i) Minimum 51% of the ownership is by women
- AND/OR
- ii) It has at least 40% women on the executive board and at least 40% woman at top level management.

EarthSpark International is committed to supporting SMEs through what EarthSpark terms “business accompaniment” (Output 2.2.1). The business accompaniment methodology consists of identifying motivated local entrepreneurs, working with them to deeply assess their current practices, thinking critically with them about potential productive uses of electricity, global sourcing of high-quality, rugged, efficient electric machinery or equipment

to enhance business profitability, and to helping to establish market linkages with regional, national, or international markets as appropriate. As part of our gender lens approach, EarthSpark’s business accompaniment strategy specifically seeks out women-led businesses as local economic partners (Activity 2.2.1.1). These SME needs and opportunities are identified and framed during pre-development surveys, as well as through conversations with the municipality and the Energy Committees (see Annex 20). In fact, pre-development surveying helped EarthSpark and Enèji Pwòp identify local stakeholders, including women-led organizations and businesses in Les Anglais and Tiburon. Similar surveys will be conducted for each town in the Project. On the Les Anglais grid, EarthSpark worked with local women’s agricultural cooperative - Asosyasyon Famn Vayan Les Anglais (“Famn Vayan”) to pilot new electromechanical agricultural processing equipment, research market linkages, and increase profits. Famn Vayan has approximately 3,000 members across the commune of Les Anglais. In one example of ‘business accompaniment’ with Famn Vayan, EarthSpark provided financing for an electric corn thresher (Activity 2.2.1.3). Payment terms were set around harvest season, ensuring that payments lined up with revenue streams throughout the pilot period.

4. Domestic Energy Use

A gendered view of domestic energy use involves:

- Improving health by decreasing women’s exposure to indoor air pollution caused by kerosene
- Improving health and reducing drudgery by offering electric alternatives to cooking by charcoal
- Increasing usable work and leisure hours by offering electric lighting.

Customer surveying and engagement, particularly the pre-development surveys and sustained communication through the Energy Committees and the grid ambassadors (Annex 20), coupled with metering data during operations measure energy consumed, spending by tariff, and number of households headed by women. These data sets allow EarthSpark and Enèji Pwòp to identify women-led households and report on domestic energy needs and use.

Connection to a microgrid providing 24hr service virtually eliminates the need for kerosene lighting. During a blackout in Les Anglais, customers complained that they no longer had any kerosene lights for lighting. Based on a small survey of customers in Les Anglais, Table 2 below shows how customers in Les Anglais use their electricity. An uptake of electric lighting at 86.2% reinforces the claim of a significant displacement of kerosene in households, which in turn reduces women’s exposure to hazardous household air pollution caused by kerosene.

TABLE 2

Appliance	% of Respondents
Laptop	3.4%

DVD	6.9%
Freezer	6.9%
Blender	6.9%
Fan	10.3%
Television	27.6%
Radio	44.8%
Phone Charger	86.2%
Lights	86.2%

Table 22 Electricity Usage by Les Anglais customers

Currently, over 90% of the population of Haiti uses wood and charcoal for cooking¹⁵. In rural areas, biomass cooking fuels are nearly universal. The number of deaths in Haiti attributable to household air pollution each year is 9,900¹⁶. To address this issue, EarthSpark is launching a pilot of off- and on-microgrid electric cooking technologies in Les Anglais with funding from the United Kingdom’s Department for International Development. EarthSpark’s pilot seeks to validate the hypothesis that new electric cooking technologies – when paired with microgrid electricity and/or financed stand-alone solar home systems – can conveniently displace household and commercial charcoal use. The Project will be informed by the results of this cooking pilot which will be scheduled to launch in Q1 2020 and have preliminary results by Q2 2020. If the pilot results are promising, the grids included in the Project can be leveraged to support the future expansion of EarthSpark’s efforts to scale the electrification of cooking in the microgrid context.

In addition to health and climate co-benefits, the time savings for women by electrifying cooking and other domestic duties is also significant. EarthSpark’s surveying has identified that in general reliable access to electricity has allowed women to have greater flexibility about the time and time of day spent performing domestic tasks requiring energy (Output 2.1.2.2). 24-hour access to lighting, televisions, and other appliances has subsequently increased up leisure time and comfort in households.

In a 2016 survey, 82.4% of customers in Les Anglais reported satisfaction with their service. 96.6% were satisfied with the quality of their home installation and 93.1% said payment process was easy to understand. By identifying local needs EarthSpark has successfully designed the technical and operational infrastructure to serve both its male and female customers and stakeholders.

5. Community Resource Availability

A gender lens for community resource availability involves:

¹⁵ Global Alliance for Clean Cookstoves, 2017 Progress Report, <https://www.cleancookingalliance.org/country-profiles/102-haiti.html>

¹⁶ Global Alliance for Clean Cookstoves, 2017 Progress Report, <https://www.cleancookingalliance.org/country-profiles/102-haiti.html>

- Improving women’s health by making electric lighting and tools in child birthing rooms possible
- Improving women’s safety by powering electric streetlights.

Most customers, particularly women, during customer surveying as part of pre-development and ongoing operations (Annex 20), identify streetlights as crucial for improving personal safety at night. Anecdotally, some feel the real sign of electrification is electric streetlights. Les Anglais has 37 streetlights installed and Tiburon has approximately 50 streetlights installed. All grids in the Project will include streetlighting (Component 1).

Across Haiti 359 maternal deaths occur in every 100,000 live births and infant mortality at a rate of 54 to every 1000 live births. Continuous lighting can offer lifesaving benefits for women needing obstetrics services. One-third of deaths in Haiti are attributed to communicable diseases, maternal or prenatal conditions, or nutritional conditions. Access to refrigerated medicine and nutritious food have the potential to improve the life expectancy (women 66, men 61) and quality of life.¹⁷ While the Les Anglais hospital already has a solar PV system, EarthSpark sees the opportunity to power clinics and hospitals in other towns as we scale. All microgrid planning in the Project will include assessments of potential health institution services (Activity 2.2.1.1).

Approximately half of all Haitian children are not attending school due to the lack of affordable education. The unequal division of labor in low-income households means girls and women have fewer opportunities to receive a complete education.¹⁸ Extreme weather events exacerbate the vulnerability of these low-income households and widen the gender gap. Less than 45% of women across Haiti are literate and the number is smaller across rural regions.¹⁹ Since becoming a microgrid customer, a local school in Les Anglais has built a computer lab with approximately 20 computers. Computer literacy is one of the many educational advantages electrification has brought to local students (Activity 2.1.2.1 and 2.1.2.2). Teachers at the school have also highlighted the transferability of these skills into the workplace, making rural students more competitive in the urban workforce.

6. Overview of Differentiated Energy Needs

Recapping the above, along with additional evidence both indirectly through survey responses as part of pre-development work, as well as directly through community engagement meetings with the Energy Committees and broader community-based outreach, Eneji Pwop continuously works to identify and systematically address the differentiated energy needs of women and men in its operations (Annex 20), including:

- **Differing consumption/purchasing patterns** – Men and women customers have noticeably different consumption and transaction patterns that need to be accounted for in operations. For example, in the Les Anglais network in November 2019, female

¹⁷ World Bank, World Bank Open Data, <https://data.worldbank.org/>

¹⁸ Haiti Equality Collective, The Haiti Gender Shadow Report, <http://www.genderaction.org/publications/2010/gsr.pdf>

¹⁹ World Bank, World Bank Open Data, <https://data.worldbank.org/>

customers accounted for 55.9% of the total customer base (218 customers) 38.55% of the total consumption (1,212 kWh), and 40.01% of the total customer costs (51,548 htg). Male customers on average use more electricity than female customers (average of 11.24 kWh per month vs. 5.56 for female customers). For purchasing, In Les Anglais female customers average about 4 transactions per month for a total of 274.4 htg (average of 66.9 htg/transaction) compared to 4.9 transactions per month for a total of 524 htg (average of 96.6 htg/transaction) for male customers. This primarily highlights that a larger number of the low-income (“Limye”) customers are female (152 female Limye customers vs. 82 male) as well as a higher number of freezer customers who are male (39 vs. 26 female). This in turn shows different levels of vulnerability as well as a need to drive equity in economic resilience as well. By tracking and monitoring consumption and purchasing patterns over time, Eneji Pwop is able to effectively identify and respond to the differentiated needs of women and men customers. For example, focusing outreach and development of new enterprises for women customers to achieve greater parity of opportunity for higher level energy users as is included in Component 3.

- **Procurement/utilization of energy sources** - Survey responses during pre-development work (Annex 20) have continuously identified women as being primarily responsible for the procurement and utilization of biomass and other alternative energy for household use, including cooking and lighting. Surveys also highlight the significant amounts of time and money women spend in fulfilling these responsibilities. Customer satisfaction surveys from ongoing operations in Les Anglais have identified an 86% uptake in electric lighting among households which both reduces women’s exposure to hazardous household air pollution caused by kerosene. Further, women report having greater flexibility about the time and time of day spent performing domestic tasks requiring energy and that 24-hour access to lighting, televisions, and other appliances has subsequently increased up leisure time and comfort in households.
- **Need for support for household businesses** – The majority of customer responses in pre-development surveys (Annex 20) identify a desire to expand and operate a business from the home using electricity. Gender-disaggregated observations and responses from participants have indicated that women are primarily responsible for the home-based businesses and enterprises. Accordingly, EarthSpark seeks out local stakeholders, particularly women-led organizations, businesses, and entrepreneurs during pre-development surveys to identify specific needs for energy supply and technologies. Some responses have highlighted equipment to support electric cooking as well as agricultural processing which is a significant draw on women’s time. Further, EarthSpark has worked with specific organizations to do specific deployments of technologies to support women-led initiatives (i.e. the Famn Vayan enterprise discussed above). The Gender Action Plan belows highlights the strategy of specifically identifying and supporting these women-led enterprises.
- **Lack of opportunity for technical/leadership jobs** – Through initial community engagement, the process of establishing Energy Committees, as well as the Energy Committee meetings in Les Anglais and Tiburon a reluctance among women to apply

for technical/leadership positions has been revealed due to a lack of confidence in ability or the perception that technical roles are for men (Annex 20). In response, starting with the Tiburon generation system build, EarthSpark began requiring that local sub-contractors ensure at least 20% of their labor force is women. Further, Enèji Pwòp has committed to developing pathways for women in technical/leadership roles within its own operations as well. Enèji Pwòp also uses recruitment materials and approaches that target and encourage women applicants.

- **Constraints for participation** – To effectively ensure representation from women, scheduling of meetings and other events needs to effectively accommodate the different schedules and demands on women’s time, as well as a more limited ability/reluctance to leave the home for extended periods of time. Through collaboration with local Energy Committees as well as feedback from community participants, Eneji Pwop has developed and refined its community meeting schedule to occur on weekends during times when most customers can attend (usually during the late afternoon following the midday meal). The meetings are also held in several locations allowing for reduced travel burden for participants.
- **Streetlights** - A key highlighted priority from pre-development surveys, particularly among women respondents, was the need for streetlights for improving personal safety at night. All Eneji Pwop/EarthSpark grids include reliable electric streetlighting designed to cover the vast majority of the grid footprints.
- **Cooking** – While not a primary focus of this project, the surveys also indicate a disproportionate risk of exposure for health impacts from utilization of cooking fuels like charcoal, gas, and kerosene for women compared to men because women are overwhelmingly responsible for cooking activities in surveyed households.

II. GENDER ACTION PLAN

The Project will implement EarthSpark’s ‘feminist electrification’ methodology and accompanying framework (see Part III.) across each grid developed. The 5 pillars will serve to replicate and expand EarthSpark’s established track record of gender mainstreaming. Incorporating pro-gender outcomes into the Project is necessary to build sustainable infrastructure that provides the opportunity for representative participation, meets the needs of all constituents in the targeted towns, and supports energy access and gender justice.

NEFCO’s Role

NEFCO in its role as Accredited Entity will oversee and provide guidance for both the design and implementation of the specific gender mainstreaming activities undertaken as part of the project as well as the overall monitoring and evaluation and project reporting for gender outcomes and the gender action plan detailed below. All actions undertaken by the project will be aligned with NEFCO’s gender policy.

Further, NEFCO as AE confirms that it has in-house gender expertise and supporting and monitoring capacity. Ms Heli Sinkko is the gender specialist within NEFCO who will be supporting the implementation of the gender action plan.

EarthSpark’s Approach

Beyond the national level, little to no gender related data exists specific to each beneficiary town. EarthSpark has engaged most towns selected for the Project by way of preliminary stakeholder consultation conducted with local authorities (mayors and deputies in most cases). From mayors to households, in-depth stakeholder consultation will be undertaken in the Project during each town's pre-development surveying. This will ensure data collected is disaggregated by gender and is both localized and representative. This will then inform town-specific gender strategies ensuring the needs and priorities of local women and men are identified and mainstreamed into Project activities. EarthSpark's pre-development surveying manual is a living document that can be amended to incorporate an individual town's needs.

EarthSpark's gender activities are mainstreamed throughout existing activities including pre-development surveying, recruitment practices, and energy literacy. As such the budget for 'feminist electrification' is similarly integrated into each of the Project's Primary and Supporting activities. Each town's collected data will indicate a gender strategy and budget, and overall M+E for the project includes indicators disaggregated by gender. As a supplementary M+E verification, the GAP includes specific M+E for each of the 'feminist electrification' pillars. Please note that each pillar shall be assessed and managed for each microgrid in the Project as follows:

1. Infrastructure Planning

This Project aims to design and build infrastructure that is informed by and meets the needs of men and women in the community (Component 1, 2). Specific objectives include:

- Increasing women's roles in planning by establishing an Energy Committee in each target community with at least 50% female representation
- Ensuring that women's priorities are registered by conducting surveying that disaggregates data by gender
- Ensuring that the grid is built and operated in ways that meet women's needs by reporting and integrating gender disaggregated survey data in the design process and customer satisfaction during the operation period for each grid
- Contributing gender-energy access thought leadership to the international and national discourse by implementing and elevating the 'Feminist Electrification' framework across the project portfolio

2. Training and Employment

The expected training and employment outcome at the end of the project is to disrupt gender stereotypes and increase the opportunity for women to enter the workforce in formal roles both directly and indirectly related to microgrids (Activity 1.3.1). Specific objectives include:

- Increasing women's technical capacity in the workforce by implementing a recruitment strategy that encourages women to apply
- Demonstrating women's leadership within Enèji Pwòp with women representing at least 40% of management positions and at least 40% of overall employees.

- Directly increasing professional opportunities for women as employees by requiring that contractors employ a workforce of at least 25% women
- Indirectly increasing professional opportunities for women by demonstrating women's abilities as capable technicians.

3. Small and Medium-Sized Enterprises

Addressing energy and gender justice significantly impacts the ability to unlock economic opportunity. This Project will identify and support the growth of local SMEs, including women-led businesses, to achieve that outcome (Sub-component 2.2). Specific objectives include:

- Increasing women's opportunities by increasing training and capacity building for SME development by implementing a business accompaniment program in each town
- Increasing women's income by increasing profits of women-led SMEs
- Increasing women's opportunities by expanding financing to viable women-led SMEs.

4. Domestic Energy Use

Identifying and meeting the energy needs of women and the domestic space are necessary to build truly representative and sustainable infrastructure (Output 2.1.2). Specific objectives include:

- Improving health by decreasing women's exposure to indoor air pollution caused by kerosene
- Increasing usable work and leisure hours by offering electric lighting.

5. Community Resource Availability

This Project will also improve the availability of community resources with pro-gendered results (Component 1, Output 2.1.2). Specific objectives include:

- Improving women's health by making electric lighting and tools in child birthing rooms possible
- Improving women's safety by powering electric streetlights.

6. Monitoring and Evaluation

EarthSpark's formal pre-development surveying has only been completed for existing projects in Les Anglais and Tiburon. As they will become contributed assets, their data informs the Baseline for the Project's Gender Action Plan. Exploration has been completed in some but not all of the 22 towns covered by this Project. Baseline data will be reassessed and reported in the Inception Report in the second quarter of the Project. Annual gender reporting will occur in Q3 of each year as part of the Annual Project Report, Midterm and Final targets will

be evaluated and reported during Project Midterm and Final reports (Q4 2022 and Q2 2025 respectively), as identified in the Project Timeline in Annex 2b.