



Mercy Corps / Uganda

INCLUSIVE ENERGY ACCESS HANDBOOK

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ACRONYMS

AGD	Age, Gender, Diversity (Approach)
EEMRG	Energy in Emergencies: Mitigating Risks of Gender-based Violence
ESMAP	Energy Sector Management Assistance Program (Work Bank)
FGD	Focus Group Discussion
GBV	Gender-based Violence
GPA	Global Plan of Action for Sustainable Energy Solutions in Situations of Displacement
LPG	Liquefied Petroleum Gas
MEB	Minimum Expenditure Basket
OCHA	United Nation’s Office for Coordination of Humanitarian Affairs
SADDD	Sex, Age, and Disability Disaggregated Data
SAFE	Safe Access to Fuel and Energy
SDG	Sustainable Development Goal
SE4ALL	Sustainable Energy for All
UNDP	United National Development Program
UNHCR	United Nations High Commissioner for Refugees
WRC	Women’s Refugee Commission

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INTRODUCTION



Energy is a universal right, affecting how people light and power their homes, cook nutritious meals, and operate hospitals and businesses. But safe and reliable access to energy is far from universal. Differences in gender, age, geography, ability, and social groups impact people’s ability to access and use energy, and their safety in doing so. And the impact of these differences are amplified in times of crisis.

This means that a girl living in a refugee camp will face very different risks from the men in her family collecting firewood or water after dark. Energy access barriers may keep a single mother from earning an income and in turn may prevent her from paying utility bills that keep her family warm and nourished. Household norms around cell phone access can prevent women and girls from accessing critical information amidst natural disasters and displacement. So while energy access supports all humanitarian sectors, the ability to translate energy into well-being depends on the intersections of an individual’s gender, age, ethnicity, ability, and social status.

Paradoxically, while energy cuts across all humanitarian sectors, it lacks a clear “home” in the form of a dedicated cluster or lead agency. As a result, energy has been routinely neglected in humanitarian response. But there is a growing global consensus that affordable, reliable, sustainable, and modern energy for all is essential to sustainable development and effective humanitarian response. Sustainable Development Goal 7¹, the Global Plan of Action for Sustainable Energy Solutions in Situations of Displacement (GPA)², and the UNHCR Clean Energy Challenge³ demonstrate the growing global commitment to improving energy access in emergencies. These initiatives are driving investment and programs that deliver energy in emergencies. But they will have the most impact if they successfully address the diverse energy needs of all women, men, boys, and girls.

In addition to guiding practitioners toward more inclusive energy interventions, this handbook promotes *effectiveness*, defined as interventions that are cost efficient, demand-driven, sustainable, protective and supportive of local systems, markets, and actors. Energy interventions that support local systems are much more likely to offer long-lasting and inclusive benefits to women, girls and other marginalized community groups.

This handbook will equip humanitarian practitioners with practical tools to improve inclusive energy access in emergencies. It provides a roadmap to address the energy-related needs, safety considerations, and empowerment opportunities that make an immense difference in the lives of women, girls, and other commonly marginalized groups.

Audience & Purpose

The resources and tools in this handbook address program assessment, design, and implementation phases. Guidance throughout this handbook is relevant for both **stand-alone energy interventions**, and **sector-specific programs**, and is intended for the following audiences:

- › Humanitarian practitioners responsible for the design or implementation of energy access programs or interventions; and

- › **All** humanitarian practitioners who can proactively leverage energy access to enhance the inclusivity, safety, and effectiveness of their programs

The purpose of the handbook is to help humanitarian practitioners:

- › Understand how energy access is both **conditioned by** and **can alleviate** intersecting social and gender inequalities in emergency settings;
- › Mitigate exposure to gender-based violence risks related to energy access and use in emergency settings by strengthening affected communities' own protective capacities; and
- › Design humanitarian programs and interventions that sustainably address the unique energy needs of women, men, boys, and girls, with a focus on marginalized community groups.

How to Use This Handbook

This handbook is organized into three sections that mirror the humanitarian program cycle, with practical tools annexed. Each section will reinforce inclusive approaches by guiding practitioners to evaluate **who** in the community is included and most likely to benefit from each step in the program cycle. Practitioners may browse the guide in its entirety, or jump into the most relevant sections, as summarized below:

To Accomplish What? Core Concepts & Assessments

Start here if you're wondering why inclusive energy access matters for humanitarian outcomes, or are unclear about basic energy, gender, or GBV concepts and terminology. This section then equips humanitarian practitioners to carry out inclusive energy access assessments – laying out best practices, examples, and tools. This section concludes with examples of humanitarian energy programs in action.

Through Which Solution? Program Design

This section walks practitioners through key elements of proposal and program design, including response analysis and developing theories of change.

How & In Partnership With Whom? Program Implementation

This section outlines strategies and tools to develop and implement partnerships, manage participant targeting, coordinate within the humanitarian system, monitor programs, and respond to disclosures of GBV.

The handbook builds on and leverages a number of reports and resources on energy, gender, and GBV that were identified in the [EEMRG global learning report](#).⁴ In particular, the handbook is intended as a companion to the 2015 Inter-Agency Standing Committee (IASC) Guidelines for Integrating Gender-Based Violence Interventions in Humanitarian Action⁵ (hereafter referred to as the GBV Guidelines). The GBV Guidelines focus on GBV risk mitigation activities that should be undertaken within and across all sectors of humanitarian response. This handbook offers guidance on leveraging energy access to foster equity while mitigating risks of GBV. Other companion resources include the [GBV Pocket Guide](#)⁶ and the Moving Energy Initiative's report on [Using Energy Programming to Address Violence Against Women and Girls in Humanitarian Settings](#).⁷



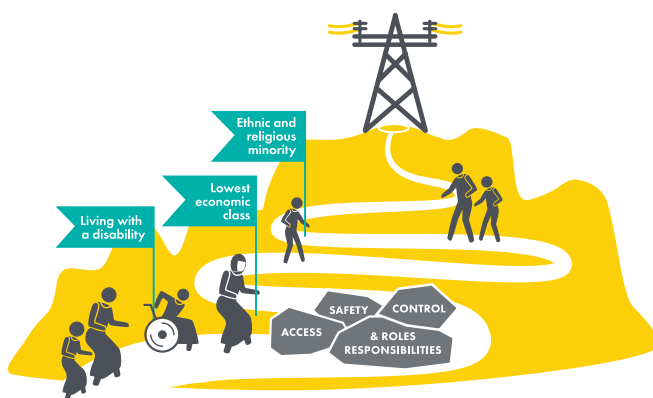
INCLUSIVE ENERGY ACCESS FOR HUMANITARIANS: CORE CONCEPTS

Sustainable Development Goal 7 aims to “ensure access to affordable, reliable, sustainable and modern energy for all.” While the SDG is inclusive in ambition, its achievement is falling short even outside of crises. Nearly three billion people lack clean, safe cooking facilities and close to 840 million people are missing access to electricity that could improve economic, health, education, and other opportunities.⁸ This often-used figure is never disaggregated by sex and overlooks the specific ways in which women and girls are being left behind, highlighting the need to strengthen a gender lens and inclusivity focus within the sector.

Because of these disparities, many communities living through emergencies and displacement start from a low energy access baseline. For example, around 90 percent of refugees who live in camp settings lack access to electricity, and 80 percent rely on solid fuels, such as firewood and charcoal, for cooking.⁹

An inclusive energy access lens is critical in crisis and conflict environments, which typically expose inequities in society. Women and girls in crisis most often hold less power than men and boys, have less access to and control over assets and energy solutions (leaving them more dependent on others for survival), and are less visible to humanitarian responders due to their limited mobility and power in public and private spheres alike. They face heightened risks of exposure to GBV associated with energy access gaps, and their unmet energy needs exacerbate intersecting forms of marginalization across all facets of their lives. Intentionally applying an inclusive energy access lens can reduce some of the inequities that are exasperated by conflict and crisis.

Inclusive energy access focuses our gaze on **who** has equitable access to energy, **how** energy access reduces risks and opens opportunities for diverse groups of men, women, boys, and girls, and **what can be done** to ensure that energy needs are met and cater to differentiated needs in humanitarian crises. This handbook focuses on meeting the energy needs of the people who **bear the heaviest burden** and **face the greatest risks** related to energy access gaps.



Gender, economic status, ethnicity, and disability can all affect energy access. These aspects of identity influence an individual’s safety as they use energy, and their access to and control over energy within their community and household. Roles and responsibilities tied to identity also influence demand for energy.

INCLUSIVE ENERGY ACCESS INTERSECTIONS: THREE WAYS THAT GENDER, AGE, AND IDENTITY SHOW UP IN ENERGY USE:

- Energy access and use is conditioned by gender identity and social status.** Even where physical energy infrastructure exists, women and children tend to have the least access to and control over energy use. For example:

 - Female-headed households are less likely to have access to energy than male-headed households.¹⁰
 - Decisions about energy consumption, such as who gets to use a mobile phone and for what purpose, are often made by male household members.¹¹
- Risks and violence related to energy access are closely linked to gender, age, and identity.** For example:

 - The lack of lighting in camps and at latrines increases fear and exposure to risks of sexual violence for women and girls.
 - 20,000 displaced people annually – primarily women and children – suffer premature deaths as a result of indoor pollution from cooking with firewood and charcoal.¹²
 - Women and children, who generally bear the burden of fuelwood and water collection, are at highest risk of physical and sexual assault in a wide range of displacement and humanitarian contexts.¹³
- Energy access can help to alleviate gender power differentials and exposure to gender-based violence risks.** For example:

 - Energy access and appliances can have dramatic and immediate impacts on women and children's time use. In India, girls' school enrolment increased by 14 percent when the household gained access to electricity. In Zanzibar, the arrival of electric water pumps and taps freed up 20-25 hours weekly for females per household.¹⁴
 - In Afghanistan, women's access to television and radio programs provided information about women's rights, which enhanced their role in family decision-making.¹⁵
 - Access to mobile phones has been shown to increase women's contact with natal families, which improves access to a source of protection in the event of domestic violence.¹⁶

Eight Core Concepts for Inclusive Energy

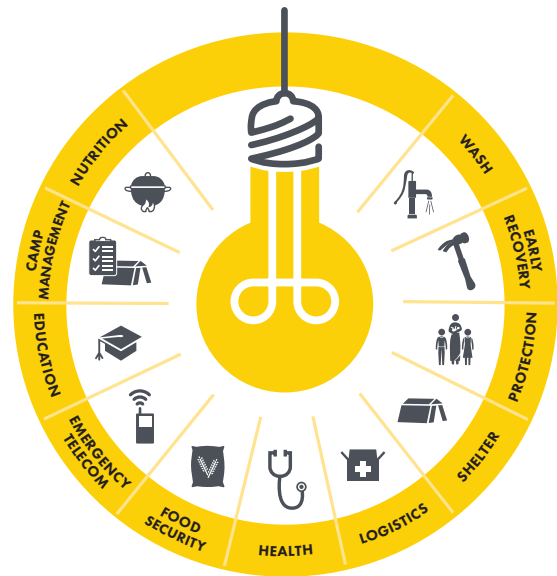
1. Energy: A Need, Right, and Enabler

Energy determines how we feed our families, how safe we feel in public places, how we power businesses, keep our homes and schools warm, and run hospitals and schools. **Far from a luxury, reliable, affordable, sustainable, and clean energy is both a basic need and a human right.** It is also an **enabler**, underpinning and supporting all humanitarian and development sectors and clusters. Energy access supports resilient communities, while neglecting energy needs impedes progress towards humanitarian and development goals.

2. Focus on Capacities Alongside Vulnerabilities

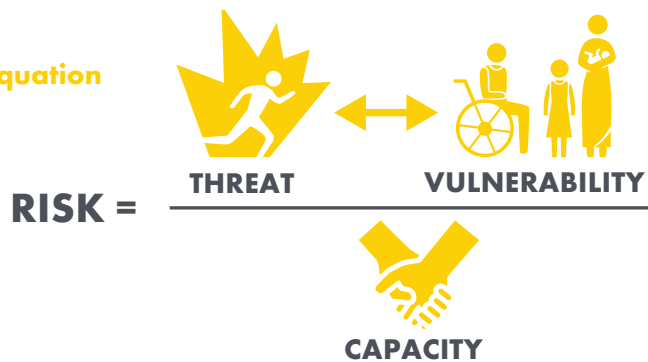
As outlined in the facts above, energy access can both present risks (such as exposure to GBV risks faced during firewood collection or visiting WASH facilities in the dark), and boost capacities to reduce inequality and exposure to risks (by facilitating access to information, income generation, and other opportunities). In many cases, humanitarian analysis and program design is limited to static “vulnerability” profiles, without acknowledging and enhancing the capacities of individuals, communities, and markets to respond to stresses and shocks. Inclusive energy access interventions respond to dynamic capacities as well as vulnerabilities through intentional design of energy interventions.

Leveraging the risk equation presented below can help practitioners to identify the threat(s), vulnerability(ies), and the possible energy interventions that will increase individual, household, or community capacity to attain humanitarian outcomes.



Energy enables progress towards all humanitarian sectors and priorities.

The Risk Equation



Threat is the potential for physical or psychological harm and/or potential barrier to access. Potential perpetrators could be armed forces, militia groups, community members, family members, or even aid workers. Potential barriers to access could be a physically inaccessible entrance to facilities, or management of a service by a particular ethnic group to the exclusion of other groups.

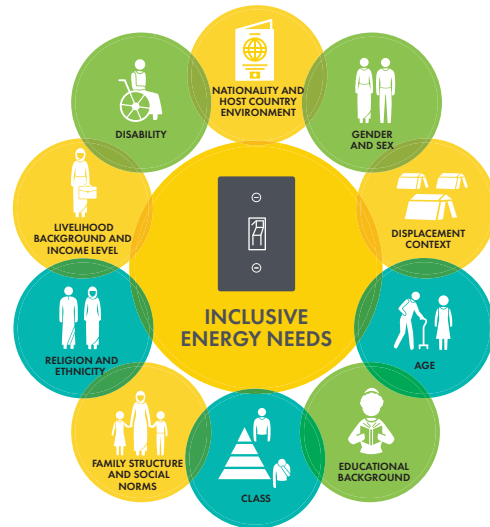
Vulnerability is what factor(s) increase susceptibility to [GBV] risk: e.g. location, timing of the activity, lack of knowledge about rights or safe practices, gender, age, and/or other identity factors (such as ethnicity, race, language, disability, etc.).

Capacities represent the strengths both individuals and communities have to keep themselves safe: e.g. skills, resources, support networks, knowledge and information about risks and safety.

Source: Adapted from the Global Protection Cluster

3. Gender & Age: A Starting Point for Inclusion

This handbook focuses on gender and age as an important starting point for inclusive energy – but recognizes that other factors can be just as important – such as race, ethnicity, displacement, and economic status. **We use gender and age as a critical starting point – but not an end point - for considering inclusive energy needs. The phrase “women and girls” is used throughout this resource package as shorthand for women and girls in all their diversity. Identity characteristics (and the intersection of these) such as age, ability, socioeconomic status, displacement status, sexual orientation and gender identity, ethnicity and race, religion, etc., can contribute to discrimination and marginalization and compound issues of gendered energy access.**



Inclusive Energy Beyond Gender: *Identity factors, including race, ethnicity, and class, compound issues of gendered energy access.*

4. Energy Models

Energy sources include fossil fuels, biomass, and renewable sources (including wind and solar). While humanitarian operations have traditionally relied heavily on diesel generators, improvements in solar are making renewable energy more attractive and viable for humanitarian operations and programs.

Energy models refer to how energy is generated, stored, and distributed. They vary widely between contexts.

Energy Models	Energy Uses	Common Humanitarian Contexts
Centralized national or regional electricity grids.	Connection to a national grid (when reliable), can serve a full range of household, productive, and community energy needs.	Urban displacement settings in middle income countries, or other locations with reliable grid access.
Decentralized mini-grids: A set of electricity generators or power sources that supply electricity to a localized group of customers. Mini-grids can run on a number of fuels and may include energy storage systems, diesel generators, or solar panels.	Mini-grids enable users to meet a wide range of energy needs (similar to uses under national grids), though may require rationed use depending on system capacity.	Mini-grids are usually designed for remote areas where grid power is absent or weak, but where high population density offers reliable demand for electricity. They are common in planned and managed refugee camps .
Off-grid models serve households and communities who live beyond the reach of centralized, national electricity grids and mini-grids.	Off-grid energy can be delivered through standalone devices (including solar lanterns, clean cookstoves, and solar irrigation systems) that contain the power source at the point-of-use.	Off-grid solutions are especially important in remote, un-electrified areas, such as rural, dispersed displacement settlements , where extending the national grid or setting up a mini-utility is unfeasible.

5. Energy Sources & Renewable Energy

The energy models outlined above can operate using a variety of energy sources, or fuels, including fossil fuels, biomass, and renewable energy sources. Growing recognition of the impact of climate change and related environmental disasters has increased humanitarians' interest in pursuing renewable energy solutions first and foremost for affected communities, but also for environmental, health, and financial benefits.¹⁷ Renewable energy sources can provide immediate benefit by reducing pressure on (and conflict over) fuelwood and other natural resources, while also reducing humanitarian intervention's costs and carbon footprint.

Renewable energy comes from a source that is not depleted when used, including the sun, wind, hydropower, biofuels, and certain waste products.¹⁸ Renewable humanitarian solutions usually center around solar energy (due to the advanced nature of this technology and the natural solar resource available in many refugee hosting countries), although there is an increasing use of renewable biomass and biogas, wind generators, micro-hydro, geothermal, and waste recycling on an ad-hoc basis.¹⁹ In displacement contexts, sustainable and reliable energy products and services are often available on the market at a comparable cost, and sometimes, even cheaper (depending on the time span, current fossil fuel prices, etc.), than traditional fossil-fuel systems.²⁰



KEY RESOURCE: ENERGY AND DISPLACEMENT

In 2015, Chatham House published their landmark report *Heat, Light and Power for Refugees: Saving Lives, Reducing Costs*.²¹ The report quantified the energy needs and costs among displaced populations. Key findings include:

- › Energy use by displaced people is economically, environmentally, and socially unsustainable, with 80% of displaced people suffering from minimal and highly polluting energy sources, and an estimated 64,700 acres of forest burned each year by forcibly displaced families living in camps.
- › Children and women bear the greatest costs of this energy poverty, facing increased risks to health (from exposure to highly polluting wood fuel cooking) and safety (when collecting wood fuel from contested sources), including risks of exposure to GBV.
- › The widespread introduction of improved cookstoves and basic solar lanterns could save \$323 million a year in fuel costs in return for a one-time capital investment of \$335 million for the equipment.
- › The humanitarian sector's 'procure and provide' model precludes opportunities for better energy services by prioritizing short-term remedies over longer-term solutions.²²

6. Energy Spheres

Energy helps people meet needs in three principal spheres: at home, at work, and within the larger community. Humanitarians work across all of these spheres and have an obligation to consider holistic energy needs, wherever possible, rather than focusing narrowly on one category.

Total Energy Access

- 
 - Faster cooking
 - Less smoke: saves lives
 - More efficient, less wood
- 
 - Study after sunset
 - Connection and communication
- 
 - Increased comfort
 - Leisure and learning
- 
 - Less food waste
 - Better nutrition
- 
 - Medical procedures at night
 - Evening education
 - Light streets: safe communities
- 
 - Cool vaccines, less spoilage
 - Reliable and rapid testing
- 
 - Clean, reliable water supply
 - Less time spent, less distance travelled
- 
 - Reduced physical effort
 - Faster processing
 - Cheaper price
- 
 - Greater range of services
 - Business after dark
- 
 - Trade without travelling
 - Access market information
- 
 - Cool and frozen products
 - Fresher for longer
- 
 - Sterilised equipment
 - Fewer infections
- 
 - Ordered and accessible records
 - Digitised institutions

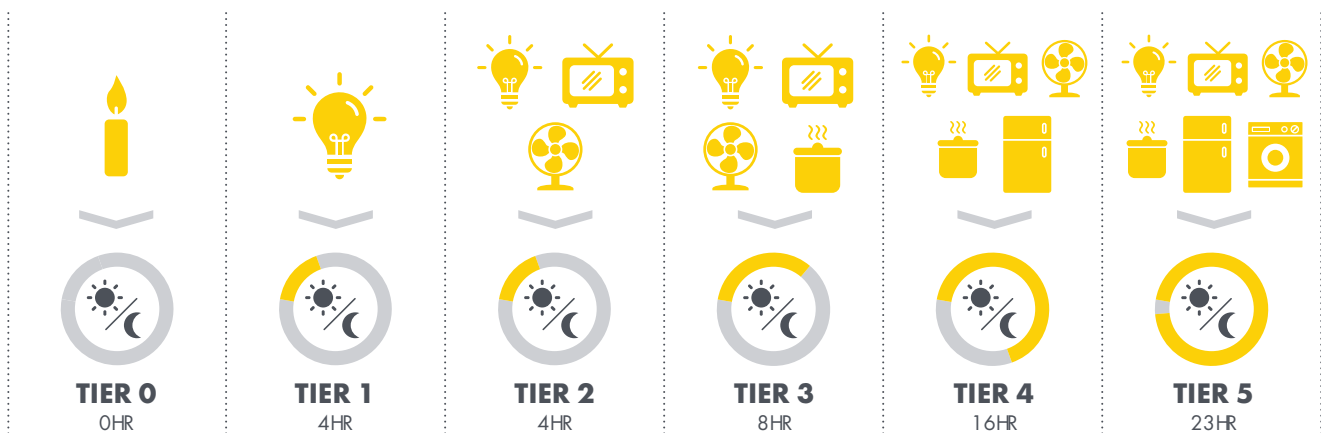


Source: This graphic is sourced and adapted from Practical Action's Total Energy Access infographic

7. Energy Access Tiers: Not All or Nothing

Energy access is measured in tiers, based on a spectrum of service levels and attributes, rather than being measured as a binary yes or no question.²³ Energy tiers understand energy access as a continuum: there is a variety of different types of energy products and services that people may or may not have access to. Tiers for electricity are determined based on availability, duration, affordability, legality, quality, and reliability. Tiers for cooking consider emissions (indoor and total), safety, and reliability.²⁴

The World Bank has created a universally adopted method of measuring energy access called the Multi-Tier Framework (MTF).²⁵ The MTF takes a technology-neutral approach to grouping appliances and technologies in terms of energy supply. Essentially, this means that Tier 0 and 1 access means little or no access to energy, Tier 2-3 a low-level of access, and Tier 4-5 roughly equivalent to the levels for access and types of technologies common in western countries, i.e. almost full power and clean cooking access.



This infographic illustrates the technologies which may be used within the different energy tiers.²⁶ For example, households with Tier 0 access may only have candles or burning sticks, whereas households with Tier 3 level access may have enough electricity to power several lights, a TV, a fan, and some medium-sized appliances

for at least eight hours. The UNHCR Global Strategy for Sustainable Energy²⁷ **commits to achieving a minimum of Tier 2 daily household electricity supply, allowing for basic lighting and connectivity within households.**

Jumping one, or several, energy access tiers will introduce a wide range of benefits to individuals, households, and the community. Humanitarian practitioners can use energy tiers to identify how movement between tiers will reduce risks and increase opportunities for marginalized groups. For example, moving a community from Tier 1 to Tier 3 may reduce exposure to risks of sexual assault among women and children who, as energy custodians, no longer need to collect firewood to cook. Moving up to Tier 3 may also increase use of domestic appliances, reducing hours required for housework most often performed by women and girls, and increasing time for income-generating activities.

8. Facilitation vs. Delivery for Lasting Impact

If we consider the most common profile of a person in need of humanitarian assistance, they are likely to be:

- › A woman or girl who has fled her home with children
- › Who faces barriers to work, education, and basic services like energy, water, and health care
- › Who will likely be displaced for ***more than a decade***, and
- › Relies on social support systems, local resources, and to a lesser extent, international aid to meet her basic needs and re-establish stability.

As the need for humanitarian aid is rapidly outpacing supply, humanitarians are urgently exploring ways to respond effectively within the confines of short-term program cycles. Partnerships that strengthen local systems, actors, and markets have taken on increasing importance. Yet, these demand a shift in mindset that can challenge long-established models of humanitarian action. The mindset shift requires a shift focusing on **delivery** (“what can we provide?”) to **facilitation** (“how do we catalyze sustainable and inclusive access to needed goods and services?”).



INCLUSION GLOSSARY

Addressing gender, GBV, and inclusion issues ensures that energy interventions benefit and reduce risks or negative consequences to marginalized groups within the communities we serve. The following terms and concepts are fundamental to inclusive energy interventions. Are you familiar with these concepts? Pause and get to know them.

Gender is the socially constructed roles of women and men, boys and girls that are often central to the way individuals define themselves and are defined by others. Unlike sex, gender is not a biological determinant. Gender roles are learned, may change over time, and vary within and between cultures. Gender often defines the duties, responsibilities, constraints, opportunities, and privileges of women and men in their context.²⁸ Gender is non-binary i.e. beyond exclusively masculine or exclusively feminine, there are many gender identities.

Age “denotes the different stages in a person’s life cycle. It is important to know where a person is in his or her life cycle, because capacities and needs change over time. Age influences, and can enhance or diminish, a person’s capacity to exercise his or her rights.”²⁹

Diversity is the “variety of values, attitudes, cultural perspectives, beliefs, ethnic backgrounds, nationalities, sexual orientations, gender identities, abilities, health, social status, skills, and other specific personal characteristics that people possess.... [Humanitarian actors] should recognize, understand and value these differences in each specific context and operation, to ensure that all persons of concern are protected appropriately.”³⁰

Intersectionality is the “interaction between gender, race, and other categories of social difference [such as age, wealth, disability, etc.] in individual lives, social practices, institutional arrangements and the outcomes of these interactions in terms of power.”³¹ Intersectionality helps us to understand overlapping and interdependent discrimination and disadvantages in order to address them. Intersectional analysis helps us to understand the accumulated levels of power that some may have in addition to the overlapping levels of discrimination.

Gender-based Violence (GBV) is any harmful act that is perpetrated against a person’s will and that is based on socially ascribed (i.e. gender) differences between men and women. It includes acts that inflict physical, sexual, or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or private.³² Intersecting identities may compound exposure to GBV.

Inclusion refers to “impartial humanitarian response for the most vulnerable” and encompasses proactive steps by humanitarian responders which include engagement with the most marginalized to ensure participation and consultation across the program cycle.³³ Inclusion ensures that “no one is left behind” facing deprivation and risk.

Access refers to the ability to benefit from and use of specific resources (material, financial, human, social, political, etc.).

Control refers to power to influence or direct specific resources (material, financial, human, social, political, etc.)

Power dynamics refer to the different ways in which different people or different groups of people within a household, community, or market interact with one another. Certain people or groups have a greater ability to influence others’ behavior, decision-making processes, and resources (including energy), thus enabling inclusion or facilitating exclusion of specific people and groups. Understanding power dynamics is central to understanding inequality, including gender inequality, and associated safety risks.

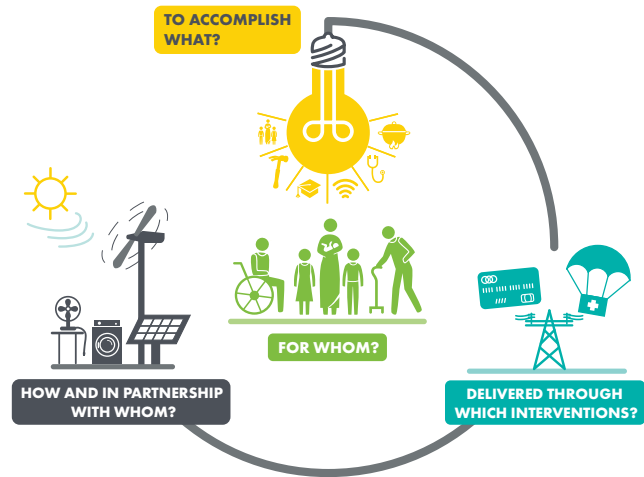
Empowerment is a process towards equality where individuals use equal rights, access to, and control over resources and power to influence matters that affect them.³⁴

Four Questions for Inclusive Energy Access

Four framing questions guide the design of inclusive energy access interventions, and support the structure of this handbook:

For Whom?

Identifying the key marginalized segments within communities, understanding, and responding to their unique priorities, capabilities, and vulnerabilities is the central and constant process throughout all stages of inclusive energy programs. Once target populations are identified, their meaningful participation in program design, delivery, and monitoring ensures that energy solutions are appropriate, accessible, affordable, desirable, and safe. Energy interventions that fail to support the most marginalized community groups and address the diverse and intersecting identities within communities served will result in or exacerbate inequitable energy access – affecting people’s ability to prepare for, cope with, and respond to emergencies and shocks.



To Accomplish What?

Energy is a basic need and underpins and supports as well as enables all humanitarian sectors and objectives. **Assessing needs in an inclusive and ethical manner helps us identify the anticipated benefits of improved energy access.** Taking the humanitarian cluster system as a starting point, and applying energy, gender, GBV, and market assessment approaches, we can identify opportunities for energy to enhance outcomes for each and every community member and sector.

Delivered Through Which Interventions?

Inclusive energy access interventions are designed with a clear understanding of gender and social inequalities, and a strategy to address disparities in energy access and use. Through intentional design, inclusive energy interventions leverage specific energy solutions with clear inclusion risk reduction, and sustainability objectives.



WHY FOCUS ON PARTNERSHIPS AND QUALITY STANDARDS IN INCLUSIVE ENERGY ACCESS?

Different phases of crisis will demand distinct approaches to facilitating and delivering energy access. Yet, short-term, distribution-based interventions frequently persist beyond the rapid-onset responses that they are best suited for. The majority of humanitarian response contexts today are protracted crises, demanding interventions that leverage and boost local capacities, are market-based, and last beyond short-term humanitarian program cycles. **Inclusive energy access interventions intentionally seek out sustainable solutions that leverage and support local capacities**, maximizing opportunities for women, girls, and other marginalized groups.

Humanitarian energy interventions also have an obligation to promote the use of quality energy products. By procuring products that meet globally recognized quality standards (including lighting global standards³⁵), aid organizations can have confidence in the quality of energy products being provided, while building consumer confidence and market stability for quality energy products.

How & In Partnership With Whom?

Whenever feasible, energy solutions must be delivered through local community-based, private, or public sector actors that have incentives and capacity to provide continuous, quality service, in a competitive environment, even after humanitarian interventions come to an end. They are also supported by strong partnerships, effective targeting, risk mitigation, and GBV response strategies.



TO ACCOMPLISH WHAT? INCLUSIVE ENERGY OPTIONS



Energy supports and underpins every sector within the humanitarian system. Examples of Inclusive Energy responsibilities within each sector may include the following:

Camp Coordination & Logistics: Plan camp public lighting to respond to the safety concerns of women and girls.

Education: Ensure that school environments are properly heated and lit, and that female students have equal access to digital education resources.

Early Recovery/Livelihoods: Respond to the unique energy access needs of female and disabled entrepreneurs.

Emergency Telecom: Facilitate equal access to critical information services, even when women, girls, and other marginalized community groups have limited access to mobile phones.

Food Security & Nutrition: Include access to safe and reliable sources of cooking fuel within food security programs, to reduce women and children's exposure to pollution and risks of violence.

Health: Design health centers and hospitals with reliable access to power, lighting, and refrigeration.

Shelter: Design household lighting and power solutions that enable equal access for all household members.

WASH: Adequately light water pumping and sanitation facilities to reduce fear and exposure to risks of sexual violence.

Inclusive energy interventions can either focus on specific sectoral objectives, or have energy access itself as an end goal. In both cases, program designers will choose from a menu of energy solutions and delivery modalities.

Inclusive Energy Program Delivery Modalities

Program delivery modalities describe how humanitarians can provide or facilitate the provision of energy solutions, and can fall into four categories.

Direct delivery: Aid agencies procure and redistribute energy products such as stoves, lanterns, etc. to targeted individuals.

Private sector partnerships: Aid agencies support access to goods/services provided through market systems and the private sector. Interventions can include: cash and voucher assistance to improve purchasing power and/or support to market systems to improve supply of critical goods.

Public service delivery: Delivery of energy services (such as electricity, liquid petroleum gas, etc.) through government entities, humanitarian agencies, or highly regulated private entities. These can be delivered free, subsidized, or at market rates.

› **Enabling environment interventions:** Activities that improve access, efficiency, or use of energy products and services. Examples include behavior change campaigns to encourage energy conservation or adoption of renewable fuel sources, improving access to energy-efficient or productive use appliances, or increasing women’s employment in energy value chains.

Programs may use multiple delivery modalities within the same program. Where possible, program delivery should seek to strengthen local markets and systems to achieve the greatest impact and scale. Local procurement of energy products when direct delivery is required (vs. relying on imported goods), using cash and voucher assistance, and partnering with the private sector and public service providers with the capacity and incentives to overcome barriers to energy access are all examples of market-based approaches.

Intervention Profiles

As a routinely overlooked need, there are limited examples of inclusive energy interventions within humanitarian settings. Below, several programs are highlighted that fully or partially embed inclusive energy principles to illustrate what inclusive energy can look like in practice. We examine these program’s inclusivity and effectiveness, using the following criteria:

- › Was the community appropriately **segmented**, with intentional inclusion of marginalized groups in assessment and design processes?
- › Were **participatory methods** used in assessment and design?
- › Were **safety concerns** identified and mitigated?
- › Were **local capacities** identified and strengthened, with a plan for **sustainability** beyond the program end date?

OXFAM’S LEBANON WASH COMMUNITY LIGHTING INTERVENTION

Sector(s):	WASH/Protection ³⁶
Context:	Lebanon; Rural; Informal Tented Settlements; Protracted Setting
Goal:	To reduce the risk of GBV and other protection threats identified by the community
Modality:	Direct delivery and public service delivery
Energy solution:	Handheld solar lights - Waterproof Portable 12w light with a USB charger (110-220v, luminous flux: 5400LM); Fixed lamp posts (powered by a generator)
Outcome:	Lighting helped people living in the camp feel safer from risks of GBV.

Description: Many of the informal tented refugee settlements in the Bekaa Valley are isolated and have no access to the electricity grid. During winter, the hours of reduced light and total darkness in the Bekaa Valley can stretch from 4pm to 7am the following day. Syrian refugee

peer groups in Lebanon represent their communities, and identified the lack of lighting after dark as a security threat while developing community action plans. Poor lighting especially affected women, children, and the visually impaired who needed to access sanitation facilities and water tanks after dark. People were scared to go out after dark, and their fears were well-founded; there had been cases of harassment and assaults by intruders in three of the settlements. In three others, the main threat women identified was being harassed when using the sanitation facilities or water tanks after dark, or when throwing out the rubbish. The field team believed that more GBV incidents had taken place than were reported, due to the fear of stigma and general shyness of talking about such issues. They found that elderly people with reduced vision were also struggling to use the facilities in low light.

Oxfam obtained a selection of bids from suppliers of different handheld lights of varying specifications, and the peer groups carried out the bid analysis against criteria they had developed, which included size, weight, portability, weatherproofing, and additional features such as phone chargers. They chose Waterproof Portable 12w lights with a USB charger. The peer group then organized the distribution, ensuring that they had accurate lists of family names and that each household received a light and knew how to use it.

In one settlement, the distribution of lights did not fully address fears about using the sanitation facilities after dark among women and children who were particularly vulnerable to harassment or attacks. While each household had a light for their tent, if an individual took the light with them to use the latrine, the rest of the family was left in darkness. This drew attention to those using the latrines and could create difficulties and embarrassment – for example, for teenage girls during menstruation.³⁷

In discussion with the residents of the settlement, the peer group developed a proposal to install better public lighting. To do so, they installed a generator to power three fixed lights around the sanitation facilities and identified a trained electrician living in the camp who would do the installation. They also identified individuals who committed to maintain the system and ensure repairs were done as needed. The community agreed to pay for fuel for the generator, with household contributions linked to income. The funding available was limited and did not enable the group to buy enough lights, so the community decided to raise the money themselves and collectively bought two more large lights.

Lighting is one element in a multifaceted approach needed to comprehensively address GBV and ensure access to WASH facilities. This is a **standout inclusive energy example** because it met all four criteria:

- ✓ **Segmentation:** The intervention made an effort to address the specific needs of female users and vulnerable community members (e.g. children and elderly persons).
- ✓ **Participatory methods:** Used participatory approaches and assessments through community involvement at every stage of the project, from problem to solution, monitoring and improvements.
- ✓ **Safety concerns:** Improved perceptions of safety amongst females, and mobility of all household members to access WASH facilities after dark.
- ✓ **Sustainability:** Built upon the refugees, capacity and skills to do the assessments, and ensure lighting assets were maintained in the long term by community members.

UNHCR / GOVERNMENT OF JORDAN SOLAR POWER DELIVERY

Sector(s):	Energy (with demonstrated benefits for Protection/Health/Education/Early Recovery) ³⁸
Context:	Jordan; Camp-Setting; Protracted Setting
Goal:	To enhance the protection, health, education and economic inclusion and livelihood outcomes of refugees across the two camps
Modality:	Public service delivery
Energy solution:	KfW 12.9M Solar Power Plant; LED, non-LED and solar street lights
Outcome:	Improved protection, health, education, and early recovery outcomes.

Description: In recognition that energy is essential for sustainable development,³⁹ UNHCR set out to improve electrical infrastructure in two of Jordan's refugee camps hosting large populations of Syrian refugees: Zaatari and Azraq.

Zaatari

- › The camp was established in 2012 with an electrical network developed with support from the Irbid District Electricity Company. Electricity originally supported service delivery and street lights; informal connections to shelters and businesses were made by refugees.
- › The electrical network was updated in 2015-2017; a KfW 12.9M solar plant was created to reduce electricity bills for UNHCR and remedy dangerous connections to the shelters. 456 LED street lights were erected and 2,100 street lights were installed.
- › The largest renewable infrastructure for refugees in the world serves service providers and 100% of households with 12 hours of electricity daily.

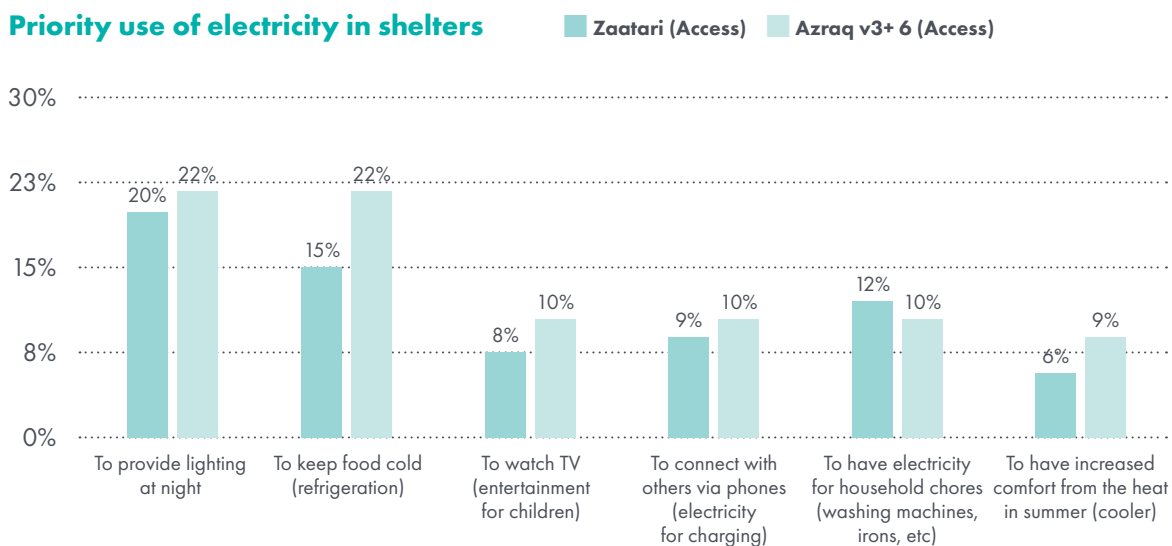
Azraq

- › The camp was established in 2013 and was connected to the local grid with EDCO (a power provider); services connected and villages were connected in phases.
- › A 5MW solar plant was created with support from IKEA Foundation from 2019-2019 and covers approximately 70% of household energy needs. 424 LED streetlights and 472 solar street lights were also installed.

Electricity led to greater appliance ownership and use (lighting, mobile phones, fridges, fans, washing machines, and television) across the camps.



Priority use of electricity in shelters



The following sectoral outcomes were also achieved:

-) Protection/GBV:** Lighting improved safety for women and children within homes and in the community, and contributed to reducing tension within and between households. Better household power meant that family members were less anxious overall, able to access entertainment, such as TV, and thus able to engage more positively with one another. At the community level, better lighting reduced fear and increased physical connections with family and friends during participation in community events.
-) Health:** Children’s anxiety reportedly reduced with improved lighting (as they were no longer scared of insecurity and the dark) and television reduced boredom and apathy; among adults greater connectivity has led to more regular communication with family members and socialization among camp residents; residents have been able to properly store medications; post natal care has been improved, specifically hygiene and breastfeeding; fewer accidents and injuries; less food poisoning; and improved nutrition has resulted due to improved refrigeration.
-) Education:** Greater access to news and information; improved lighting for studying and safer spaces to study; greater use of devices (phones, computers, laptops, tablets) for studying; access to online courses, including tertiary education.
-) Livelihoods and Economic Inclusion:** Better and longer lit market areas; more diverse livelihoods opportunities; increased scope of services and operating hours including access to online livelihoods trainings; and reduced drudgery of unpaid care work and freed up time for women (approximately 12 freed up hours per week) and girls to engage in livelihoods and/or education.

In addition, renewable energy infrastructure enabled UNHCR to reallocate savings to other areas of service delivery and to reduce the carbon footprint (by over 20,000 tons annually) of its operation.

This intervention met many **inclusive energy access criteria**:

- ✓ **Segmentation:** While the intervention targeted the refugee camps as a whole, without specific interventions to serve marginalized groups, it made an effort to carefully monitor impacts of energy access for marginalized groups including youth, women, and girls.
- ✓ **Participatory methods:** While participatory methods were not used for design or delivery of the intervention, methods including photo voice allowed the implementing agency to better understand the impact of energy access and use for diverse populations.
- ✓ **Safety concerns:** Safety, GBV, and protection concerns were explicitly evaluated during monitoring processes, revealing concerns and solutions around mobility and access to WASH facilities after dark.
- ✓ **Sustainability:** Partnerships with the Government of Jordan ensure that newly constructed grid systems can also serve the needs of the host community.

MOVING ENERGY INITIATIVE'S ENERGY MARKETS INTERVENTION IN BURKINA FASO

Sector(s):	Energy ⁴⁰
Context:	Burkina Faso; Urban and Camp-Settings
Goal:	To strengthen energy markets to enhance access for refugees and host communities
Modality:	Market-based
Energy solution:	Variety of solar products, including lanterns, home systems and panels
Outcome:	Energy markets were strengthened to support energy access among refugees and host communities.

Description: The Moving Energy Initiative (MEI) implemented a market systems strengthening project to address systematic gaps and bottlenecks affecting the functioning of the critical energy supply chains. MEI established an MoU with UNHCR to implement the interventions.

In response to market constraints that were holding back refugee access to and purchase of quality energy products, MEI engaged energy suppliers and a range of energy market actors to improve market efficiency (for example, government, SMEs – and their energy agents, retailers and technicians, media, and a training institution). MEI's intervention included expanding access to information and bridging knowledge gaps by facilitating meetings between energy firms and refugee representatives of SMEs, community committees, and women's groups. MEI ensured a



MEI decided to intervene systemically rather than focus on promoting specific energy products

The following constraints and opportunities were selected:



Market perceptions

› changing the perceptions of who does-what in the energy system by demonstrating the market potential



Marketing and retail

› facilitating direct marketing interactions between energy firms and energy users



Financing

› challenging the idea that aid agencies must deliver credit or loans thus displacing local finance mechanisms



After-sales

› willingness to invest in energy is dependent on customer satisfaction, so after-sales support improves the customer experience to fuel future demand

gender-sensitive approach by asking firms to include female refugee informants in market assessments, since they had previously been overlooked as a key market segment.

Key outcomes of the intervention included:

- › Training institutions adapted their curriculum to include training on solar products and systems;
- › A few female energy technicians were trained in solar product repair and maintenance;
- › Information about energy products were made more accessible for low literacy users (e.g. cartoons);
- › Improved linkages between stakeholders (humanitarian agencies, development actors, private sector and government);
- › Greater government commitment to support integrated market systems and work through the private sector;
- › Improved relationships that could result in new finance mechanisms for low-income and displaced populations, including pay-as-you-go models..

This intervention met many **inclusive energy criteria:**

- ✓ **Segmentation:** The intervention made an effort to address the specific needs of female consumers and involve women in non-traditional (solar) supply chains, for example by identifying and presenting female consumer needs (which were previously overlooked) to private sector actors, and targeting women as retailers.
- X **Participatory methods:** Participatory methods were not widely used in design or delivery.
- X **Safety concerns:** Safety, GBV and protection concerns were not clearly considered as priority elements of the intervention.
- ✓ **Sustainability:** The market-based approach strengthened existing supply chains and improved linkages between displaced populations, host communities and private sector actors. It built up local market capacities, with limited reliance on humanitarian agencies.



INCLUSIVE ENERGY ASSESSMENTS



Inclusive Energy assessments help us **effectively understand and design interventions that address** unique and intersecting energy needs across age, sex, and social groups. While specific methods and tools can vary, all energy assessments should examine four areas of inquiry using four best practices.

Areas of Inquiry

Gender
GBV
Energy Systems
Markets

Best Practices

Listen to diverse voices
Identify local capacities
Collect and use data ethically
Use participatory approaches

Inclusive Energy Assessment should:

- › Listen to diverse voices within a community to reveal unique energy needs
- › Identify opportunities to strengthen local capacities
- › Are ethical and data responsible
- › Use participatory approaches to overcome power differentials and elevate diverse voices

These assessments rely on methods and data from a variety of sectors, and demand inclusive approaches to paint a complete and inclusive picture of energy needs that informs the design of energy interventions. This section outlines the approaches, best practices, and steps of inclusive energy access assessments, and introduces user-friendly energy assessment tools (available as annexes), that can be adapted for a variety of contexts. It concludes with [examples of inclusive energy access assessment principles in practice](#).

Stronger Together: Merging Gender, GBV, Energy & Markets Insights

Inclusive Energy Access Assessments bring together data from gender, GBV, energy, and markets assessments.

Gender analysis reveals *differences in power* between men, women, boys, and girls through their perceived roles, responsibilities, opportunities and privileges. It examines decision-making power, time use, and access to and control of resources, services, public spaces, and networks. Gender analysis may also examine legal and cultural constructs. Gender analysis prevents energy interventions that favor the needs of men and other powerful groups.

GBV analysis highlights *who is at risk of exposure to GBV, where, when, why and by whom*. It identifies contextual trends of GBV (for example how the loss of livelihoods or lack of girls participation in school may be linked to early/forced marriage, or how women and girls' limited mobility prevents them from accessing services). It also identifies what types of GBV specialized services and referral pathways are available. Unless energy interventions are safe, they cannot be inclusive of the most marginalized community groups, including women and girls. **Note: GBV analysis should be led by GBV specialists.**

Energy markets & systems analysis reveals how communities are accessing and consuming critical energy goods and services to meet basic needs and survive. This analysis reveals energy access gaps and opportunities presented by improved access. By examining existing systems and strategies to access energy, humanitarians can *identify points within these systems that are most in need of support, and design interventions that will have the greatest and longest-lasting impact.*

Best Practices

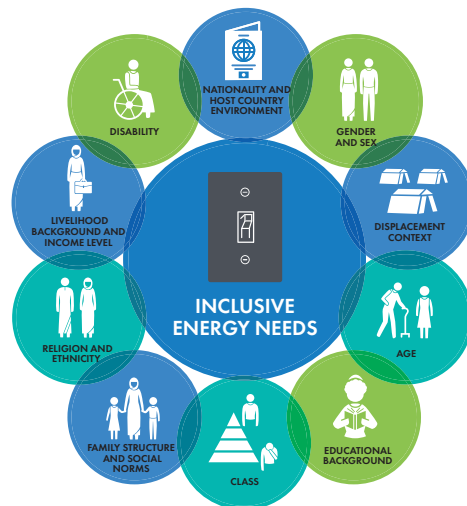
In addition to asking the right questions around gender, GBV, and energy systems and markets, inclusive energy access assessments are intentional in **how they ask questions and approach communities**. By incorporating the following best practices, Inclusive Energy Access Assessments are more likely to identify and design programs that respond to the needs and safety concerns of all community members.

#1: Listen to diverse voices within a community to reveal unique energy needs and experiences. This means creating safe spaces to listen to the energy needs, priorities, and risks of diverse groups of men, women, girls, boys in separate consultations. Looking across energy spheres (home, work, community) will reveal a full spectrum of energy needs.



HOW TO: SUPPORTING DIVERSITY IN ASSESSMENTS

Inclusive energy access approaches use gender and age as a **starting point** for inclusion. Looking beyond gender and age in assessments can help us understand how intersecting elements of identity impact energy needs. The sample of assessment respondents should reflect the diversity of the target population, with consideration of abilities, (self-disclosed) sexual orientation and gender identities, ethnicity, religion, displacement, and socioeconomic status. For youth, school enrollment status (in vs. out of school youth) and marriage status should be considered.



Best practices to support including and supporting diverse assessment participants include:

- › Separate group consultations for participants of the same sex and within similar age and identity brackets. For example, holding separate focus group discussions for:
 - › Individuals within specific economic activity or livelihood groups (agriculture, traders, caregivers, etc.)
 - › Individuals with physical, hearing, vision, intellectual or psychosocial disabilities

- › Caregivers of persons with disabilities⁴¹
 - › Among adolescents: early and older adolescents; married and unmarried, in-school and out-of school/working
 - › *Self-identified* lesbian, gay, bisexual, transgender, and intersex individuals;
 - › Host community members and displaced individuals
- › Data collectors (be they humanitarian practitioners or community enumerators) should always be the same sex as respondent, and should reflect the profile of the assessment sample as much as possible to increase comfort and openness of respondents (including persons with disabilities, and when safe to do so, self-identified LGBTI individuals).
- › Where time and resources allow, training and collaborating with adolescents as data collectors to consult their peers is recommended.

#2: Identify opportunities to strengthen local capacities. Humanitarians have a history of meeting needs using externally sourced staff, solutions, and goods. Building on existing local systems and capacity produce more durable solutions for energy and inclusion objectives.

- › Conduct energy and market assessments that identify opportunities to strengthen existing and locally owned energy systems and markets (see [Annexes 1-7](#))
- › Seek out local community expertise on contextual risks and protection strategies, and apply a do no harm analysis, asking who may benefit and who may lose as a result of the energy intervention
- › Ensure that host community capacities and needs are considered alongside those of displaced

#3: Be ethical and data responsible in all community consultations and engagements. Inclusive Energy assessments examine sensitive issues including power dynamics, gender roles, safety, and violence. Assessment leads have a responsibility to prepare assessment teams for engaging with these topics and ensure that all assessment team members follow best practices outlined in the “Ethical Assessments Checklist: Doing No Harm in Inclusive Energy Assessments” (Annex 6).

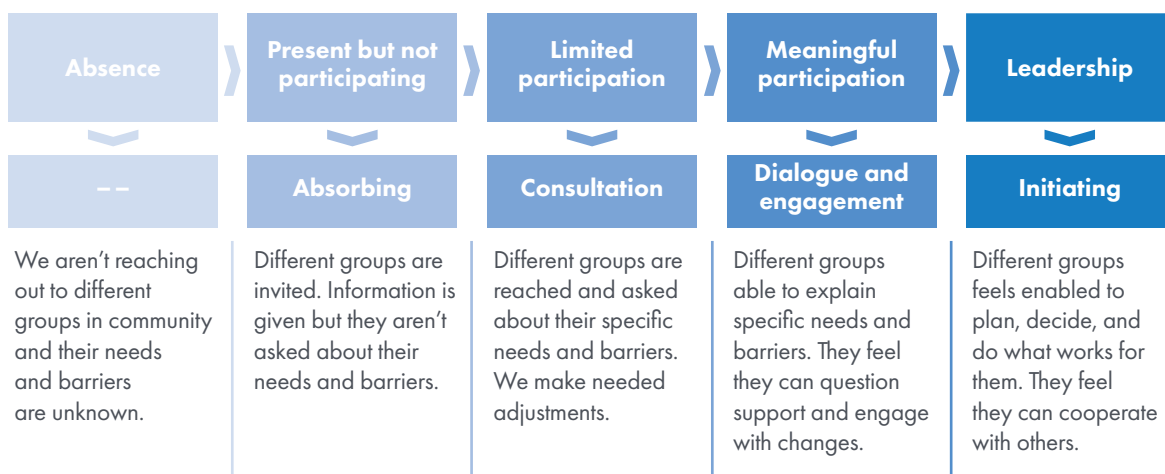
#4: Use participatory approaches to overcome power differentials and elevate diverse voices and energy needs. Using best practices such as ranking exercises, small breakout groups, and product demonstrations encourage everyone to contribute.



HOW TO: PARTICIPATORY APPROACHES AND ASSESSMENTS

Participatory approaches are approaches that **involve displaced people at all stages of the analysis**: from conceptualisation of the problem, to undertaking assessments, to designing and implementing solutions, to monitoring and evaluating the project. Hiring and involving those with barriers to participation should be prioritized where safe and feasible. Participation levels exist on a continuum from a total absence to leadership roles. More inclusive assessments set the stage for more meaningful participation throughout implementation of a project or intervention.

Meaningful participation



A minimum standard for inclusive energy access assessments means involving populations of concern directly in the data collection and analysis. Tools and methods introduced in the next section provide concrete ways to include meaningful participation in assessments, for example through focus group and ranking methodologies, in the set-up of assessments by hiring displaced people as data collectors, asking for beneficiary feedback on the results of assessment data, and co-designing assessment processes with displaced people. The Adolescent-led tools ([Annex 2](#)) offers an example of a fully participatory, participant-led assessment and intervention design process tested in Jordan with host community and Syrian refugee adolescent girls. This video illustrates girl-led energy assessments in Jordan. <https://youtu.be/Q6h9V8yetjg>

Steps for Implementing Inclusive Energy Assessments

Inclusive energy assessments can use a variety of methods and tools, but follow three universal steps:

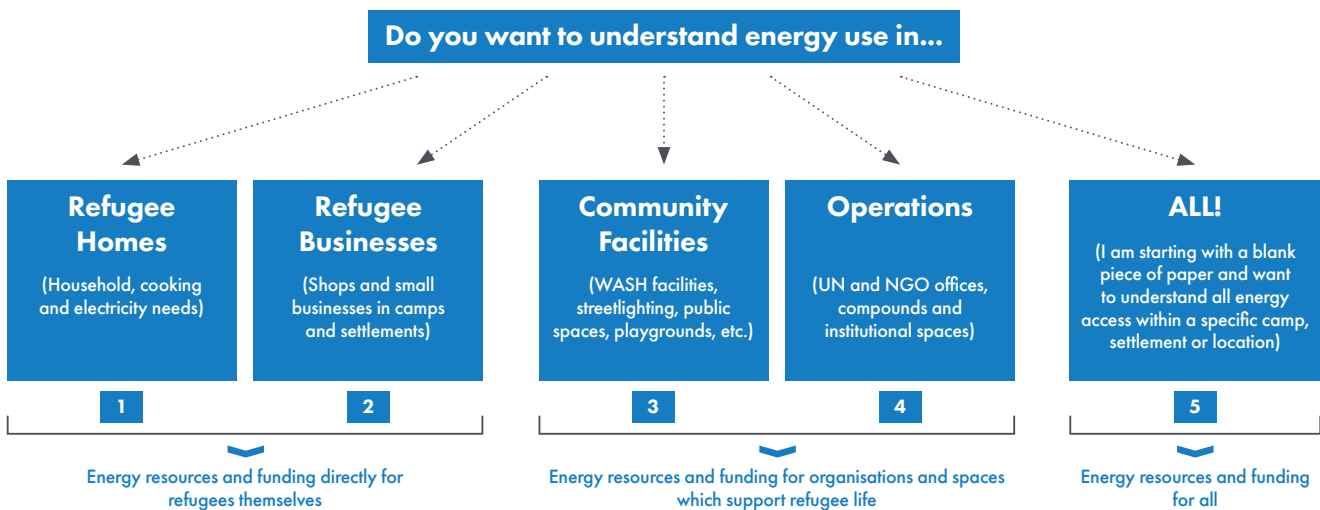
1. **Define the focus area**
2. **Segment the population**
3. **Select tools**
4. **Analyze your data**

Step 1: Defining the focus area

Defining the focus area is a first step for an inclusive energy assessment (and assumes a geographic area has already been defined). The focus and comprehensiveness of energy assessments will depend on the implementing organization and intervention context, including if your objectives are **sector-specific** or **energy focused**.

Humanitarians working within shelter, health, food-security, livelihoods, or other sector-focused teams and organizations will be primarily focused on how inclusive energy access can further sector-specific objectives.

By contrast, humanitarians responsible for infrastructure, camp-management and energy-specific projects may be able to consider more holistic energy solutions and be concerned with the best way to deliver sustainable energy solutions that respond to a variety of sectoral needs. This step results in a list of areas to be assessed for energy needs/use (selected from the options presented below).⁴²



Step 2: Segment the Population

After an energy focus area is selected, humanitarians need to clearly define **who** is expected to benefit from an energy intervention within the geographic and outcome area. Having a clear and predefined picture of intended energy users will ensure that assessments identify specific energy needs of different groups. Segmentation considers identity (gender, race, age), circumstance (displacement, ability), and economic status (poverty levels and economic activity).

What does *inclusive* population segmentation look like?

Diverse men, women, girls, boys, and other key groups are consulted independently and given space to voice their energy needs, priorities and risks (see best practices box, page 27).

Female and male market actors are consulted, segmenting to represent different ethnic, religious, language, caste associations, as well as vendors who have special needs.

Detailed wealth analysis is carried out to understand the different sub-categories of the poor within a population.

What does *non-inclusive* population segmentation look like?

Only male heads of displaced or host households or community leaders are consulted.

Only dominant and formal/organized market groups, typically comprised of only male vendors, are consulted.

Since the majority of households are poor, basic poverty analysis is skipped, and it is assumed that everyone in a “poor” area will benefit from a uniform intervention.

Even if all households in the intervention area are vulnerable, understanding different levels of poverty and energy needs enables us to be clear about who programs are expected to reach, and accommodations that may be necessary to include marginalized groups. Segmentation doesn’t need to be a lengthy process, and can be written up as a brief list of specific populations to be consulted in assessment processes.

Resources for segmentation include⁴³:

Resource	Source	Why it’s useful
Consultations with local experts	Team members, community leaders, existing humanitarian, GBV, and gender assessments	Key Informant interviews and informal consultations with local experts, along with existing humanitarian assessments, can offer contextually specific information on wealth markers, marginalization risks, and populations of concern.
The Girl Roster	Population Council	This tool helps practitioners identify and intentionally link girls – especially the most marginalized adolescent girls’ – to the vital resources, facilities, and services to which they are entitled.
WFP food security and vulnerability analyses	World Food Programme (WFP)	Detailed description of the food security situation, available for a large number of countries. Some analyses focus just on food security, while others also include a component looking at vulnerability analysis.
Progress Out of Poverty Index (PPI)	Progress Out of Poverty (Grameen Foundation)	The simplest way of assessing the poverty likelihood of target households, using a set of 10 questions.
Household Economy Approach	Food Economy Group	Provides detailed analysis of the poverty characteristics of different sub-categories of the population, for different livelihood zones. The reports can be downloaded for free, and mainly covers countries in Africa.

Segmentation example: In designing a program in Uganda to increase refugee and host community access to solar lighting and power systems, Mercy Corps identified a number of diverse product needs based on segmentation by occupation (which closely corresponded to income), gender, and status as host/refugee community member. The outcomes of the segmentation are shared below and discussed in detail in Mercy Corps' [Paying for Darkness](#) study.

Segment	Vulnerable Groups	Farmers	Female MSME Owner	Male MSME Owner
Profile	Hosts & Refugees Male & Female Disabled / Caregivers / Elderly	Hosts & Refugees Male & Female	Hosts & Refugees Female only	Hosts & Refugees Male only
Prioritized value of energy product	<ul style="list-style-type: none"> › Children's education › Night time safety for travel / water collection / shopping › Single lights (easy to hold and for single households) 	<ul style="list-style-type: none"> › Children's education › More bulbs for more rooms › Night time safety for travel/ shopping › Phone charging 	<ul style="list-style-type: none"> › Children's education › Night time safety for self and business facilities › Phone charging 	<ul style="list-style-type: none"> › Access to information and communication for business purposes › Large power source
Calculated disposable income	8000 UGX per month (no significant segmentation trend in results)		MSME at 18,000 UGX (average though male MSMEs may be higher)	
Energy product matches	Wind up / dry cell torch Mobile phone charging 50 lumen solar	Wind up / dry cell torch Mobile phone charging 220 lumen solar	Wind up / dry cell torch Mobile phone charging 220 lumen solar 6W SHS	
Payment requirements	Cash Payment up front	Cash Loan up to 9 months	Cash / Mobile money Loan up to 12 months	
Potential market size in Bidibidi (conservative estimates)	97,341 people (19,468 households) 12% total Bidibidi population		34,132 business owners 5% total Bidibidi population	

Step 3: Select & Deploy Assessment Tools

In this step, specific assessment tools are selected and customized for the implementation context, and deployed following best ethical practices outlined in Annex 6. Depending on program context, inclusive energy assessments may be stand alone (using tools and methodologies proposed here), or may incorporate key questions into broader needs or market assessments. Regardless of the format, inclusive energy assessments help us understand:

- › Current energy uses, needs, expenses and priorities
- › Gender and social norms that condition access to, use, and control of energy
- › Risks, including GBV risks related to energy access and use
- › Energy systems, markets, and access barriers (social, economic, physical)

Before designing tools, be sure to review existing data sources (see text box, below).



BEST PRACTICE: USE EXISTING DATA

In most humanitarian contexts, substantial needs assessment, poverty, and demographic data is publicly available and can support the design of inclusive energy interventions. In addition to checking with relevant clusters and working groups, review the following data sources before designing assessment tools to avoid duplication of data collection. Also, ensure that primary data collection will be used in program design or delivery to avoid assessment fatigue among target populations.

Gender Assessments: Use gender, age, and other filters on OCHA’s humanitarianinfo.org and [reliefweb](https://reliefweb.org). CARE often publishes Rapid Gender Analysis reports. For examples of gender analysis, see these reports from CARE in [Ethiopia](#) and [Iraq](#).

GBV: The [GBV Information Management System](#) and the [Global Protection Cluster](#) host relevant reports and updates. For examples of GBV assessments, see this UNFPDA report from [Iraq](#).

Energy/Markets Assessments: Consult local energy, livelihoods, environment, and cash working groups for assessments and [Minimum Expenditure Basket](#) reports. Visit UNHCR’s [Energy Monitoring platform](#), the [Global Plan of Action](#), and the [Cash Learning Partnership Library](#) for relevant data and reports.

Step 4: Capture Insights from Assessment Data

Analyzing assessment findings turns raw data into actionable insights. Inclusive energy access assessments generally collect three categories of data to support program design: demographic and gender analysis, energy systems & markets analysis, and a risk analysis. Specific analysis questions, along with an insights summary template are provided in [Annex 7](#). These templates can be used as the base of an assessment findings report, and to support program design.

Inclusive Energy Access Assessment Tools

A suite of dedicated inclusive energy assessment tools are available in the [Annex](#). The tools are designed to assess needs and surface energy priorities of diverse community members across all energy spheres (household, productive, and community) and to flag the linkages between energy access, identity, and exposure to GBV risk – including opportunities for energy interventions to enhance the protection of women and girls. These tools support ethical and inclusive community consultations, involving and elevating the voices of marginalized community groups.

The tools can be customized to focus on one energy sphere, population, or even a specific energy need, depending on the mandate and needs of the implementing teams. Tools are modular and are intended to be used to bridge gaps in existing assessment methodologies and adapted to context based on insights from country-level teams and in particular, national staff and affected community members engaged as part of the data collection team.

- › **The Adult Focus Group Discussion Tool** and accompanying Icon Library uses participatory ranking methodology to establish energy priorities, needs and risks. This method elevates voices and can be empowering for women and younger people in particular when it is expected that they follow rather than lead. It is designed to be used by humanitarian practitioners to consult diverse adult women and men.
- › **The Adolescent Tools** can be used by humanitarian practitioners to consult diverse adolescent girls and boys and by adolescent data collectors to consult their peers (for example girl data collectors consulting girl peers), with support from humanitarian practitioners. Adolescents have distinct experiences and responsibilities from children and adults, and face exposure to unique risks. As future leaders it is important to harness and foster their experiences and ideas through meaningful participation and leadership.
- › **The Key Informant Interview (KII) Tools** can be used by humanitarian practitioners to consult with diverse community members and stakeholders (such as market actors, community leaders and humanitarian service providers). KII can also be a useful tool for understanding issues that are more sensitive or stigmatized, such as GBV.
- › **The Survey Question Bank** is intended for humanitarian practitioners and M&E teams, and lists survey questions that can be integrated into basic needs or other types of survey-based assessments.
- › **Market Assessment Tools** examine the capacities, incentives and the constraints that are preventing energy market systems from working effectively for communities affected by crisis. In addition to the market actor KII guide, survey, and KII tools from an assessment of solar energy market systems in refugee and host communities in Uganda are included that were used to identify market constraints, value propositions, and ability to pay for lighting and solar home systems (See [Annex 5a](#)).

In addition to these inclusion-focused tools, a number of existing [energy and market assessment tools](#) (Annex 5) can be used to gain a deeper understanding of energy systems, needs, and demands within identified contexts. If adopting these tools, consider integrating Inclusive Energy principles, assessment methods and questions from the tools above to ensure the perspectives of the entire community are accommodated in program design.

Inclusive Energy Assessments in Practice

Each of the energy interventions profiled [earlier in this handbook](#) were supported by energy assessments that applied inclusive energy assessment principles. We will reconnect with those program profiles to consider how assessments influenced program design and implementation.

OXFAM'S LEBANON WASH COMMUNITY LIGHTING INTERVENTION

Trained community Peer Groups carried out a threat analysis to identify the greatest protection and safety concerns of the community, to understand how these came about and their impact, and to identify the coping strategies and capacity within the community. Peer Groups then organized a meeting with the wider community to share this analysis and have the findings verified.

The analysis identified the following perceived protection risks: People were scared to go out after dark due to well-founded fears of harassment and assaults by intruders (there had been cases in a number of the settlements); women identified the main threat as being harassed when using the sanitation facilities or water tanks after dark, or when throwing out rubbish; elderly people with reduced vision were struggling to use the facilities safely in low light. The field team believed that more GBV incidents had taken place than were reported, due to the fear of stigma and general shyness of talking about such issues.

How this integrated principles of inclusive energy assessments:

Areas of inquiry:

- ✓ This assessment looked carefully at gender dynamics and GBV risks associated with access to lighting, including within the household and public spaces.
- ✗ The possibility of distribution of handhold lighting through market systems was not assessed, though financing for public lighting had strong community buy-in and sustainability plans.

Application of best practices:

- ✓ **Listened to diverse voices** in consultation using an Age, Gender, Diversity (AGD) approach and findings that informed the design of the energy intervention. Notably, the process consulted with people who had difficulties with seeing, hearing, mobility, and self-care to understand their safety and access related issues.
- ✓ **Local capacity** of community was leveraged in consultations, product selection and financial sustainability of public lighting (though may have been strengthened with a stronger market lens in delivery of handheld lighting)
- ✓ **Participatory approaches** were well integrated, groups Qualitative and quantitative assessment methods were used and tools which incorporated a focus on the linkages between safety and energy access.
- ✓ **Ethical data** principles were exemplified by not explicitly asking about GBV incidents experienced by participants (as stipulated in IASC ethical guidelines)

UNHCR / GOVERNMENT OF JORDAN SOLAR POWER DELIVERY

A Participatory Impact Assessment (PIA) was undertaken to assess the impacts that electricity had on the protection, health, education, and economic inclusion and livelihood outcomes of refugees across the two camps.

The assessment drew on existing data and both quantitative (survey) and qualitative (focus group discussion, interviews) tools and men, women, boys, and girls living in the camps were consulted during the process. Participatory methods were used with youth; a photo voice activity was led by UNHCR's partners where youth photographed how electricity affected how they and their families live, socialize, learn, cook and eat, work, and feel safe. In addition, UNHCR staff and electrical contractors were interviewed.

How this integrated principles of inclusive energy assessments:

Areas of inquiry:

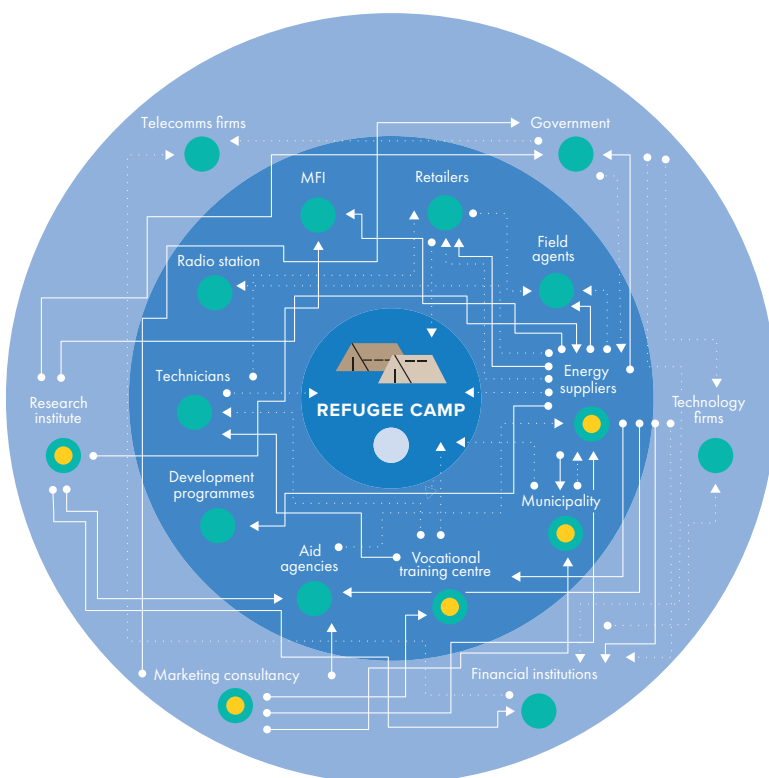
- ✓ **Gender** and **GBV analyses** identified the wide range of changes brought about by electricity access for different groups. The assessment noted reduced household labor for women as a result of increased access to appliances, and improved feelings of security.
- ✗ While the assessment discusses appliance purchase and ownership, indicating strong market activity for energy products, there is **no assessment of energy appliance markets**, missing an opportunity to understand (and potentially strengthen) how camp-based markets are responding to demand for energy products.

Application of best practices:

- ✓ **Listened to diverse voices**, including youth and populations with disabilities, with findings informing the design of the energy intervention.
- ✓ **Ethical data practices** were used by leveraging existing data to avoid assessment fatigue, including surveys and FGDs with camp residents, staff, and electrical contractors conducted since the camp opened in 2014.
- ✓ **Participatory assessment methods**, including photo voice, used documentary techniques to capture experiences without bias from enumerators.
- ✓ **Local capacity** of community members was leveraged in consultations (through photo voice), and in partnering with the Government of Jordan for the solar installation. However, local market actors that sell energy appliances were not consulted or involved in the intervention.

MOVING ENERGY INITIATIVE'S ENERGY MARKETS INTERVENTION IN BURKINA FASO⁴⁴

MEI undertook a markets systems and finance assessment using key informant interviews to assess several aspects including: energy supply and demand factors, opportunities to support market functioning (for example, marketing of energy products and services, finance quality assurance, rules and norms, etc.), and the interdependence of market actors and related incentives, behaviors, and informal and formal connections between actors.



The graphic shows how the project facilitated the connections between market actors in Dori and Goudoubo to improve energy access for refugees and host communities. MEI supported key actors ('hotspots'), and facilitated direct connections between some as well as indirect/knock-on connections between others. For example, the energy firms directly connected with energy retailers during a field visit and then indirectly interacted with the radio station during a trade fair. Eventually, the energy firms converted this indirect relationship with the radio station into a direct one by working with them to deliver a radio show on energy.

Source: Image adapted from the Moving Energy Initiative

●→ Direct connection ●- - -> Knock-on connection ● MEI ● Hotspots ● Aid

Key findings from the assessment included:

- › Both refugees and host community members relied heavily on firewood, had limited access to electrical grid, and faced affordability barriers to many available energy solutions.
- › Energy products were available in the market, but energy users had low willingness to pay.
- › Energy supply chains existed for solar products, with underdeveloped retail and marketing functions.
- › Information flows about product quality impacted demand.

- › Obstacles existed for refugees and host communities to access information, marketing, after-sales support, and financing.

How this integrated principles of inclusive energy assessments:

Areas of inquiry:

- ✓ **Market systems** were robustly analyzed, including supply and demand factors, supporting market functions, incentives of market actors, and financing opportunities.
- ✓ **Gender** and **GBV** were considered in initial assessments (noting issues around GBV and fuel wood collection, and differing levels in access to energy products such as cell phones), but are less thoroughly considered in analysis of specific market constraints (such as financing).

Application of best practices:

How this integrated principles of inclusive energy assessments:

- ✓ **Listened to diverse voices, including** meaningful consultation with and consideration of women's needs and capacities (for example, involving women as active market actors), and ensuring that energy firms visited women's groups and carried out research with women refugees to understand their willingness and ability to access energy products through the market. (Though increased attention to adolescent needs might have yielded important insights about market barriers for that important population.)
- ✓ The assessment identified **local market capacities** and opportunities to strengthen these capacities.
- ✓ **Ethical data** practices were practiced by carrying out an interactive assessment and research approach that built upon existing data sets.
- ✓ Limited application of **participatory approaches**, though product assessments did involve product demonstrations, which elicit better quality responses.



THROUGH WHICH SOLUTION? INCLUSIVE PROGRAM DESIGN



With inclusive energy assessment analysis in hand, practitioners are ready to design inclusive energy programs and interventions. Program design may happen as part of a fundraising and proposal development process, or may happen to plan details of an intervention when funding is already secured. In both scenarios, practitioners use insights and analysis from the assessment, including:

- › The various needs and desired impacts they want to address through their program or intervention - and the role energy will play {energy to accomplish what?}
- › Key community segments, including marginalized community groups, as well as distinct needs within groups to address through an intervention {for whom?}

This section will walk practitioners through key design steps and decisions.

Clarify Inclusion Objectives

Defining a program objective is the first step in program design, and presents an opportunity to ensure that energy interventions explicitly address gender and intersecting social inequalities. At a minimum, programs need to acknowledge existing power differentials and access gaps, implement through a **“do no harm”** lens, and center the goal of reducing risk of harm to all program participants. This could, for example, include designing household lighting programs to ensure that women and girls in the household have equal access to lanterns as men and boys, or planning community lighting interventions around safety and GBV risk assessments. At the other end of the spectrum, programs may adopt an **empowerment and transformative focus**, aiming to strengthen women’s and other marginalized groups’ relative power. For example, programs that increase women’s income generation through energy access may also work with male household members to shift social norms and acceptance of women’s participation in livelihoods and management of household finances.

Inclusive Objective	Not Considered	Do No Harm	Reach and Benefit	Empower and Transform
Analysis and Activities	<i>None (Gender negative or blind approach)</i>	Gender and identity-based risks identified and mitigated	Gender and identity analysis informs design that addresses needs of and ensures access for marginalized groups.	Gender and identity analysis identify root causes behind inequalities and informs design that addresses the needs and access of marginalized individuals, meaningfully engaging communities as partners.
Impact at Implementation	<i>Actively reinforces existing gender inequalities and norms; no attention to needs of varied groups</i>	Reduced exposure to gender and identity based violence and risks	Interventions reach and improve the well-being of marginalized groups.	Interventions shift power relations and strengthen marginalized group's ability to make strategic life choices.

In some cases, there is a tension between meeting urgent humanitarian objectives and aiming for transformative gender outcomes. Given the scale of displacement and need, as well as dwindling humanitarian funding, changing norms may be considered by some as unfeasible. However, simply identifying and working around existing power inequalities may have dire unintended consequences and undercut the sustainability of energy programming, as well as opportunities to enhance the wellbeing and empowerment of women and girls through energy interventions. For example, if gender norms and inequitable access to and control over energy inhibit women's engagement in livelihoods, but programming does not engage men to shift norms, then programming intended to help women and their families may end up exacerbating their marginalization and exposure to risks of GBV associated with energy access and livelihoods programming.

ENERGY ACCESS: NOT A SILVER BULLET FOR GENDER EQUALITY

Research from the US shows that on average, women spend 2.3 hours a day on house tasks, and men spend 1.4 hours. In Japan, women who work more than 49 hours a week typically perform close to 25 hours of housework a week. Their husbands do an average of less than five. Nearly global access to energy in both countries has not resolved underlying gender roles and expectations that produce this unequal division of household labor. While energy can reduce time burdens on women, it alone will not bring about gender equality. This highlights the importance of improving energy access **while also challenging** social norms and expectations in order to bring about transformative change.

Source: <https://www.nytimes.com/2019/02/02/world/asia/japan-working-mothers.html>

In summary, inclusive energy interventions will **always** identify and mitigate risks and possible negative consequences of energy interventions, and will **always** understand and respond to gendered patterns of energy access. They will **sometimes** aim to challenge and transform entrenched inequalities to bring about transformational change, recognizing that transformation requires actions beyond the realm of energy solutions alone.

Response Analysis

Humanitarian agencies often resort to using program delivery modalities that they are most experienced with. A supply-chain oriented agency, for example, will often resort to direct delivery of goods sourced from globally pre-positioned warehouses, and a health-focused agency may build field hospitals with diesel generators because they have been doing so for decades. While reliable, these approaches often miss opportunities to **strengthen local capacity and achieve durable results**.

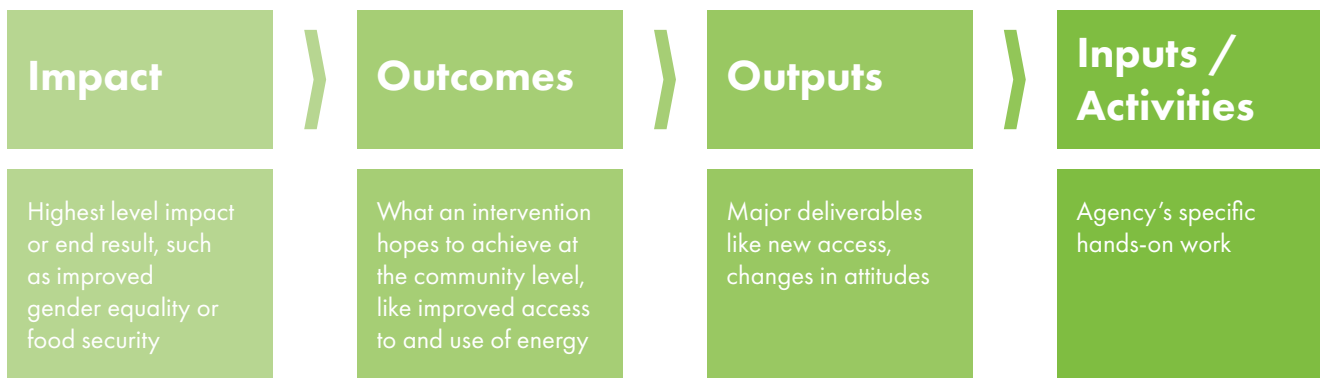
Response analysis can break us free from familiarity biases in program design, by forcing us to consider different program delivery intervention models side by side (e.g., delivering cooking fuel through market actors vs. directly through aid agencies). Response analysis can help us identify the differences in risks, inclusivity, sustainability, and can clarify opportunities and risks faced by different population segments. A response analysis example, and customizable template is available in [Annex 8](#).

Developing Inclusive Theories of Change

What is a theory of change?

A theory of change describes how your program will lead to results, and helps you think critically about the relationship between inputs and expected impact. It articulates inputs (or activities), outputs, outcomes and impact.

What process do we follow to develop an inclusive energy theory of change?



1. Start by defining your intended impact and outcomes, ensuring that they respond to needs and priorities expressed by community members during assessments. Within this, specify desired impacts for different age, sex, and other important groups in your program, and how energy will advance desired outcomes.
2. Define activities/inputs and outputs, addressing gender inequalities and possible positive and negative consequences on women, men, girls and boys. Activities and inputs should respond to risk and feasibility assessments.

Inclusive theories of change:

- › Respond to expressed energy priorities, needs and preferences of diverse groups of women, men, girls and boys.
- › Specify desired impacts for diverse groups of women, men, boys and girls, addressing possible positive and negative consequences for these groups.
- › Clearly articulates the extent to which an intervention aims to challenge and address gender and other inequalities.
- › Identify how local capacities and energy systems are leveraged and strengthened through an intervention.

Two example theories of change (for both energy-specific and sectoral focused programs) are available in [Annex 9](#).



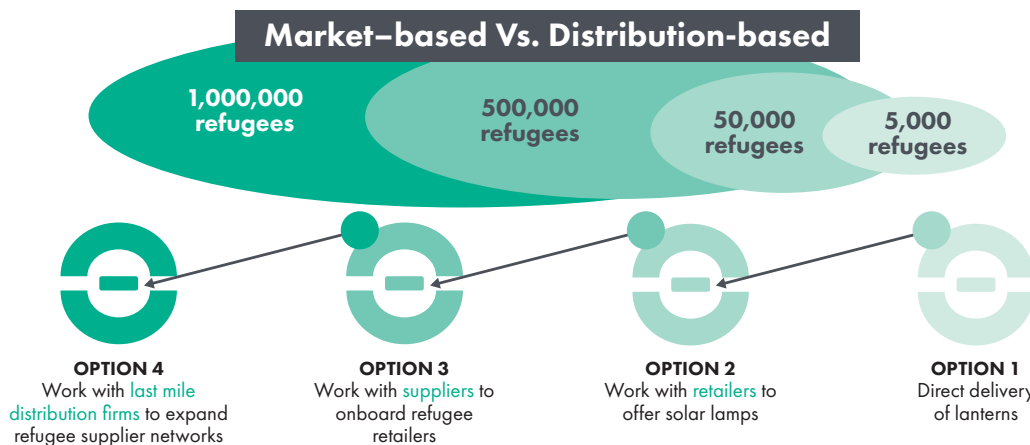
HOW & IN PARTNERSHIP WITH WHOM? IMPLEMENTATION

This section will introduce tools to support the successful implementation of programs after the design phase. It includes resources on partnership development and management, targeting, coordination, monitoring and managing GBV disclosures & referrals.

Partnerships

Improving inclusive energy access at scale and in a sustainable manner requires a mindset shift from focusing on **delivery** (“what can humanitarian actors provide?”) to **facilitation** (“why aren’t systems delivering needed energy already? And how do we work with local actors to catalyze sustainable and inclusive access to energy?”) The image below illustrates how partnering with market actors can dramatically increase the scale and reach of a humanitarian lighting intervention.

Finding a leverage point



The facilitation mindset often leads humanitarians to work with 3 types of partners:

Private sector partnerships, with firms who directly deliver energy products, services, and appliances, financing partners who help bridge energy affordability gaps, or supply chain actors (agents, retailers, wholesalers) that can address availability barriers.

Community partnerships with community-based groups and local service providers, such as local women’s organizations.

Government partnerships with utility providers for work on large scale infrastructure expansion, rehabilitation, or efficiency work, or government institutions (schools, hospitals, etc.) that require energy to deliver critical community services.

Two examples of humanitarian energy partnerships are provided below:

GOVERNMENT PARTNERSHIP SNAPSHOT: DARASHAKRAN REFUGEE SETTLEMENT IN IRAQ

Darashakran refugee settlement is located near Erbil in the Kurdistan Region of Iraq. The settlement opened in 2013 and is home to over 11,000 Syrian refugees. Initially the refugees were provided with low-capacity connection to the national grid, sufficient to operate lights and to charge electrical devices.

In 2017, UNHCR and the local government increased connections to the local grid, enabling use of electricity to cool houses, washing machines to clean clothing and reduce drudgery and time poverty for women and girls, and water boilers to access hot water for meal and beverage preparation and hygiene. Today most refugees have all of these appliances, which increase electricity consumption and pressure on the national grid.

The local sub-station in Darashakran was not designed to accommodate the high load, which led the voltage in the distribution lines to fluctuate widely. This resulted in appliance malfunction and breakage, including hospital equipment, computers, air conditioners and household appliances. To reduce the overall electricity supply to the settlement, and thus reduce voltage drops and improve reliability, UNHCR initiated a program to transition some of the most energy-intensive infrastructure to solar power. Since 2018, all of the boreholes that provide the water supply in the Darashakran settlement have been transitioned to solar.⁴⁵

PRIVATE SECTOR PARTNERSHIP SNAPSHOT: MERCY CORPS AND SOLAR COMPANIES IN UGANDA

Uganda's Bidibidi settlement hosts around a quarter million refugees, largely from South Sudan. Most households have minimal access to electricity and lighting, spending substantial portions of household budgets on cell phone charging, low quality torches and dry cell batteries. While higher quality solar products exist within urban Ugandan markets, private sector actors have largely avoided expanding sales into refugee settlements.

Mercy Corps partnered with two solar supply chain actors, D.light (offering lower price point, cash-based solar solutions), and Village Power (offering larger solar home systems) to improve the quality and supply of lighting and powering products among camp residents.

In an initial pilot, Mercy Corps helped these companies overcome market barriers (including market information, transportation, consumer awareness, and storage). Mercy Corps led marketing and product awareness efforts targeting women consumers through existing savings groups. Initial results demonstrated high demand for the solar products, with nearly 4,000 solar products sold, with 54% female consumers. The most often cited benefits of the solar products included improved lighting at home (and ability for children to study), the ability to charge phones, and improved feelings of safety and security.

Setting a Vision

The first step to establishing successful partnerships involves establishing a clear vision of the future: what do we want to **last beyond the time we're present and implementing on the ground?** The sustainability matrix, below, outlines a partnership vision for two hypothetical inclusive energy scenarios, and can be a useful tool as a first step in partnership development. Asking who currently does/pays, and who will do/pay in an ideal future vision are powerful design questions. The example below demonstrates potential gains from a shift in delivery from a humanitarian agency towards a market-based approach.

Current picture			Program Strategy	Future vision		
Service, product	Who is doing?	Who pays?		Service, product	Who will do?	Who will pay?
Individual lighting	UNHCR distribution	UNHCR		Wider array of solar products / services	Private sector offered products	Consumers (subsidized)
School power / lighting	UNICEF, diesel generator	UNICEF		Solar-powered school	School / local government	Maintained by local government

Partner identification

Applying questions from the “will skill matrix” (right) can assist in identifying partners with the right incentives and capacity to engage. Once viable partners are identified, you can assess their abilities to help your program meet inclusion targets and reach high priority energy user segments. Key questions to ask as you evaluate potential partners include:

- › What is the partner’s current reach to populations you seek to serve (considering gender, age, displacement status, livelihoods, disability, and other relevant segmentation criteria)?
- › What support or incentives might they need to safely and reliably serve these populations and provide high levels of service?
- › Does the partner’s leadership, staff, and frontline presence reflect the diversity of the groups you wish to serve? If not, are they open to becoming more inclusive to improve their services to your target?

	High		
		Capacity problem?	Why aren't they doing it already?
WILL		Why work with them?	Incentive problem?
	Low	Low	High
			SKILL

Targeting & Subsidies

Targeting is the process of defining who will participate in and receive benefits from a humanitarian intervention. A properly functioning targeting system can define, identify, and reach intended beneficiaries. In addition, it checks and is responsive to any exclusion errors, which happen when program interventions do not reach the intended priority group and fail to deliver the intended impact.

TARGETING IN MARKET-BASED INTERVENTIONS

When using market-based approaches that seek long term changes to energy delivery systems, targeting should consider the needs of marginalized community members, alongside the incentives of partners and service providers. In practice, this often means targeting market segments *beyond* the primary community groups humanitarians have a mandate to serve, in order to ensure financial sustainability of an intervention. Subsidies can be a powerful tool to balance sustainability and inclusion objectives. For detailed guidance on smart subsidies, that reduce risks of market distortion, see [Annex 10b: Designing Smart Subsidies in Inclusive Energy Access Programs](#).

The starting point for inclusive targeting demands clarity around **who** your intervention prioritizes reaching, linked to your project's objective. Inclusive targeting may focus on any of the following strategies:

- **Scale and Coverage:** Ensuring that as many different profiles of people as possible have access to, and control over specific energy solutions. For instance, ensuring that everyone in a household (men, women, boys, girls, people with disabilities, elderly, etc.) has meaningful access and control of household lighting.
- **Reaching Specific Populations:** Focusing on overcoming access gaps for groups who are typically excluded from specific energy solutions. For instance, if women in a refugee camp are less likely to own charging stations as an income-generating activity, a targeting strategy may encourage their access to charging stations and ability to participate in this income generating activity.
- **Reducing Risks for Specific Groups:** Reducing risk of harm or violence that specific groups face in accessing or using energy sources. For instance, designing cash programming to incentivize fuel purchases in near-by markets, to reduce the risk of GBV for women and adolescent girls who otherwise face risks while collecting fuel in remote areas.

Once your targeting strategy is defined, use participatory processes to **identify program participants, reach them, and check your assumptions and lists**. This might include involving targeted community members in verifying selection criteria, lists of program participants, or providing suggestions on how to best reach the intended groups. For more detailed inclusive targeting guidance and an example targeting system, please see [Annex 10](#).

DON'T ASSUME GENDER-BASED TARGETING = GENDER TRANSFORMATION.



In some contexts, and within some households, gender-based targeting may be appropriate.

However, solely targeting women within households or women-headed households can have unintended consequences, such as increasing household labor burdens/time poverty, and may increase their exposure to GBV risks at home, and in their communities. Because of these risks, gender-based targeting may require complementary activities and increased monitoring.

Coordination

Humanitarian actors are never working in isolation. A 2015 ALNAP study on coordination states: “Coordination is essential to the success of humanitarian response. In most crisis situations, a large number of organisations will be working to provide support in the same area...[Coordination] prevents dangerous gaps in assistance, and helps avoid wasteful duplication.”⁴⁶

While most humanitarian interventions fall within a clear sector, energy does not benefit from having a “home” within a single cluster, and sits within all clusters, as described in Section 1 of this handbook. While the [SAFE Matrix on Agency Roles and Responsibilities](#) provides guidance on sectoral responsibility for fuel needs, other guidance is lacking. That does not, however, remove the importance of coordinating energy interventions. Practical opportunities and recommendations for energy interventions include:

- › Share energy activities and interventions through regular humanitarian reporting systems (3ws, etc.)
- › Where they exist, energy and environment working groups provide a space to coordinate and share information on energy assessments, best practices, and interventions.
- › Work with cash and voucher assistance actors to ensure that energy needs are reflected in Minimum Expenditure Baskets (MEBs).⁴⁷
- › Work with other energy stakeholders to strategically advocate for energy inclusion in Humanitarian Response Plans (HRPs), which are an effective way to increase available funding for energy programming.



PROGRAM IN FOCUS: OXFAM'S LIGHTING RESOURCES

Oxfam has extensive global experience implementing community, household, and individual lighting solutions in emergencies. They have developed a set of guidance to support the design and implementation of lighting interventions in emergencies that are participatory and proactive in identifying and mitigating GBV risks. Their suite of resources is available in Annex 11 and includes:

- › Key informant interview, survey, and focus group discussion guides focused on lighting (including community maintenance)
- › Public, household, and individual lighting intervention checklist

- › Tip sheet on household and individual lighting interventions
- › Tip sheet on public lighting interventions

Managing GBV Disclosure & Referrals

WHAT DOES DISCLOSURE OF A GBV INCIDENT MEAN AND WHAT DOES IT LOOK LIKE?

“Disclosure” refers to a person telling someone else sensitive information.

A “GBV incident” refers to an event when GBV took place.

Here are examples of what this might look like in the context of energy programming:

- › After a training, a female program participant mentions that her husband physically abused her after an argument about how much of the cell phone battery she used up.
- › During a focus group discussion, a female community member tells you that she is routinely sexually harassed by host community members when collecting firewood.
- › While doing a post monitoring distribution exercise, a female student mentions she was sexually assaulted at night after using a poorly lit latrine.
- › When interviewing teachers during an assessment, one mentions that several girls have been assaulted at dawn while walking to school on dark paths.

GBV survivors will reach out to anyone who they think can help them. They often see humanitarians, who are asking questions about daily life, and who build trust as they support a variety of community needs, as a safe person to ask for help. Disclosure can also happen at any stage of a project, and to anyone involved, including technical specialists (for example, WASH, Shelter) and community enumerators (who are hired or who volunteer to support activities). For these reasons, all individuals interacting with the community are responsible for and need to understand how to respond to disclosure of GBV, and provide referrals. Minimum best practices in responding to a disclosure of GBV include:

- › Prepare by mapping services: know where there are locally available health, psycho-social, safety/protection, and justice/legal services for GBV survivors.
- › Be prepared to listen: staff are trained in psychological first aid, which are basic skills in active listening. (These are excellent skills to have, not only when talking with GBV survivors but also with anyone seeking any type assistance).
- › Be prepared to refer: have a plan for referral and make sure all staff in that activity are aware of the plan.

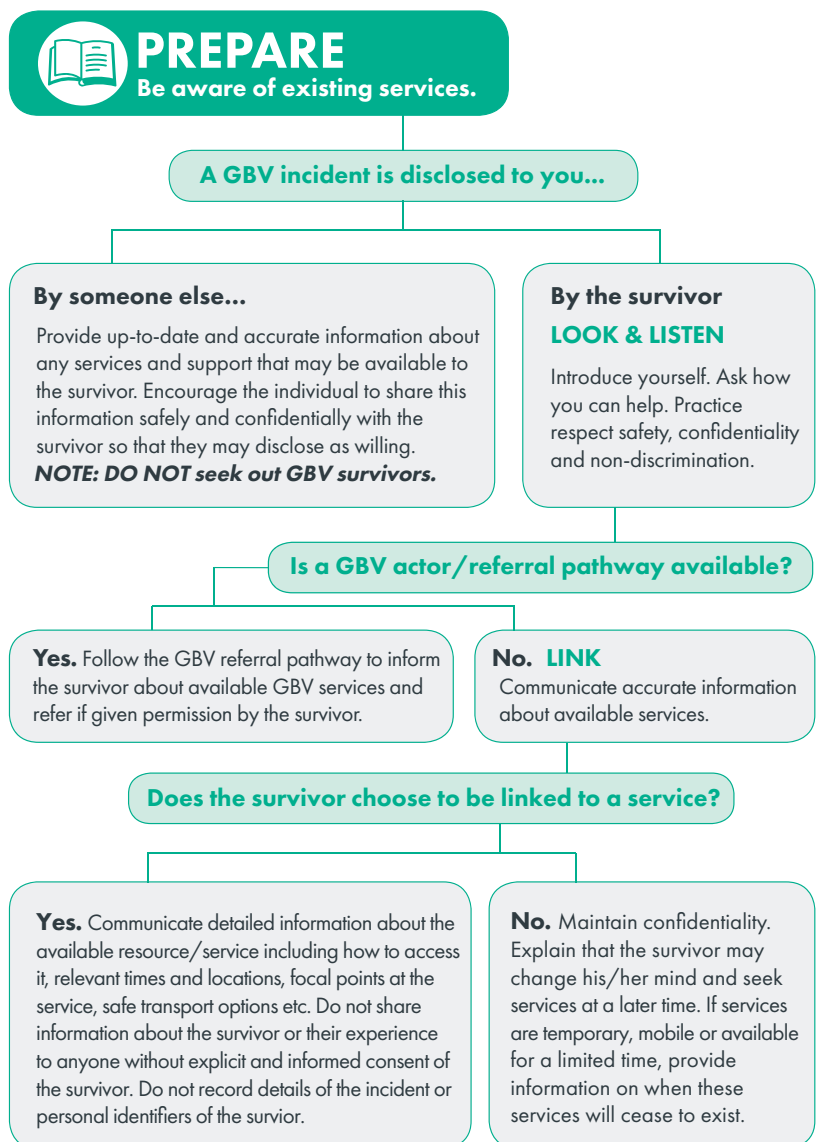
Non-GBV specialists should not try to directly address or resolve the needs of GBV survivors, but they should be able to refer them to experts and local services. It is critical that communication during a disclosure adheres to key principles, including the Survivor-Centered Approach, so that the individual disclosing does not experience further harm and can effectively recover from the incident of violence they have experienced.

The **survivor-centered approach** is used to ensure that survivors feel safe, comfortable, and listened to when they are disclosing traumatic experiences and incorporates these principles: **Respect** by treating survivors with dignity, ensuring their participation and respecting their decisions; **Confidentiality** by safeguarding survivors' right to privacy and maintaining confidentiality; **Safety** by being aware of survivor's fears, risks, and capacities to mitigate safety concerns; and **Non-discrimination** by treating everyone based on need alone. - IASC GBV Guidelines Pocket Guide

The **IASC GBV Guidelines Pocket Guide** offers useful and straightforward guidance, based on Psychological First Aid (PFA), for non-GBV specialists on how to support survivors of GBV when a GBV actor is not available in your area; the Pocket Guide can also be used when there is a GBV referral pathway. The guide is available in multiple languages, is short in length for easy printing and carrying with you to the field and is also available as [a smartphone application](#) for convenience. Training on the Pocket Guide does not take long and should be a standard element of team capacity building in preparation for energy assessments, implementation activities, and monitoring.

Disclosure and referral may look different in settings where there are GBV services (and a designated focal point) and established GBV referral pathways, versus a context where there are gaps in GBV services and no clear referral pathway. The Pocket Guide provides helpful tips in either scenario, through its **Decision Tree**.

DECISION TREE



This [video](#) from the Global Shelter Cluster’s GBV Working Group can help demystify the process. While managing disclosure and referral may feel intimidating at first, by closely following the Pocket Guide, including referring to the **Do’s and Don’ts and What to Say section**, you will be able to respond appropriately in the event of disclosure and make the proper linkages based on the context where you are working.

Monitoring Inclusive Energy Interventions

Monitoring helps us ensure that interventions are “on track” against expectations in our theory of change, and are delivering intended energy access that is reliable, affordable, clean and safe for diverse women, men, and adolescent boys and girls. With quality monitoring data in hand, program implementers can make informed adjustments where needed, provide transparency and motivation to team members and partners to make necessary changes, and ensure buy-in of local stakeholders and donors.

How do we monitor for inclusive energy?

1. Develop an **indicator plan** that actively monitors for inclusion (see the [Indicator Menu and Indicator Plan Template](#), Annex 12) for a customizable template and 25 inclusive energy indicators that can be used across a range of programs).

For examples of indicator plans in action, see [annex 13](#), which lay out indicators for impact, outcome and output levels for two sample programs.

2. Carry out **key monitoring events** (at a minimum, baseline, evaluation, and routine process and protection monitoring), and ensure reports of these events exist. Ensure sex, age and disability disaggregated data are included. Wherever possible, validate findings with communities.

An example [baseline/endline tool](#) (Annex 14) was designed for an intervention in Afghanistan’s Helmand Province, where extreme challenges to women’s work outside the home often limit women’s economic activity to in-home enterprises. The intervention is testing the ability of improved energy access to spark new in-home economic activity among women, and improve their social and economic well-being and decision-making power within the household.

3. Use a **basic data management system** to compile, store and analyze data.
4. **Use analyzed data** in team meetings, program planning and decision-making to adjust program implementation where needed.
5. Ensure a **final evaluation report** exists to contribute to ongoing learning within your response, organization and the sector.

MONITORING BEST PRACTICES:

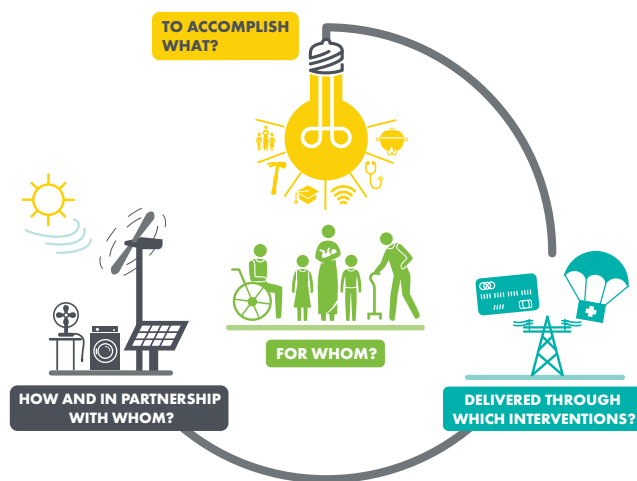
- ✓ Addressing displaced and host women and girls' **feelings of insecurity** (including threats to physical and psychological well-being) — linked to energy access and more broadly — is in itself of great value and should be centered in humanitarian response. In doing so, women and girls' self-confidence, well-being and resilience can be strengthened at individual, household, communal, and systems levels. Many of the suggested indicators in the indicator bank measure feelings of security (see [Indicator Plan and Bank Annex](#)).
- ✓ Humanitarian programs have a tendency to collect more information than they actually use. This is a waste of community and program time and resources. To reduce the risk of wasteful data collection and assessment fatigue, ensure that your purpose and intended use for each indicator is clear. If not, delete it from the list.



CONCLUSION: PUTTING INCLUSIVE ENERGY INTO PRACTICE

This handbook, and accompanying tools, equip humanitarian practitioners with practical frameworks and tools to improve inclusive energy access in emergencies. Using the “key questions”, it provides a roadmap for addressing the energy-related needs, safety considerations and empowerment opportunities that make an immense difference in the lives of women, girls, and other commonly left-behind groups.

The following checklist provides a review of the key frameworks and guidance introduced in the handbook:



To Accomplish What? Inclusive Energy Options & Assessments

- List of key energy, gender, GBV and inclusion terms and concepts
- Menu of Inclusive Energy options: energy solutions & delivery modalities
- Inclusive Energy Intervention Profiles
- Inclusive Energy Assessment Principles
- Inclusive Assessment Profiles
- Steps for Implementing Inclusive Assessments
- Essential Actions Checklist for Inclusive Energy Assessments
- Assessment Analysis Framework
- Response Analysis Framework

Through Which Solution? Program Design

- Developing Inclusive Theories of Change
- Continuum of Inclusive Program Objectives & Example Theories of Change

How & In Partnership with Whom? Implementation

- Partnerships Sustainability Matrix
- Targeting System Example
- Coordination Opportunities List
- Program in Focus: Oxfam’s Lighting Resources
- Responding to GBV Disclosure
- Indicator Plan
- Monitoring: Indicator Examples

These approaches are supported by tools included in the Annex of this handbook. We invite you to adapt, contextualize, and make the tools your own as you embark on integrating inclusive energy into your programs.

ANNEXES

Assessment Tools:

- › Annex 1: [Adult Focus Group Discussion Tool](#) and accompanying [Icon Library](#)
- › Annex 2: [Adolescent tools](#)
- › Annex 3: [Key Informant Interview tools](#)
- › Annex 4: [Survey Question Bank](#)
- › Annex 5a: [Energy Systems & Market assessment tools](#)
- › Annex 5b: [Market Tool Example: Willingness to Pay & Value Proposition](#) (from Uganda)
- › Annex 6: [Ethical Assessments Checklist for Inclusive Energy Assessments](#)
- › Annex 7: [Assessment Analysis & Insights Tool](#)

Design Tools & Templates:

- › Annex 8: [Response Analysis Example & Template](#)
- › Annex 9: [Example Theory of Change](#)

Implementation Tools:

- › Annex 10a: [Inclusive Energy Targeting Tipsheet](#)
- › Annex 10b: [Tipsheet: Smart Subsidies](#)
- › Annex 11: [Oxfam Individual, Household and Community Lighting Resources](#)
- › Annex 12: [Indicator Menu & Indicator Plan Template](#)
- › Annex 13: [Example Project Indicators](#)
- › Annex 14: [Baseline/Endline Tool Example](#) (From Afghanistan)

Other Resources:

- › Annex 15: [Inclusive Energy - Additional Definitions and Terms](#)

ENDNOTES

- 1 Sustainable Development Goal 7 aims to ensure access to affordable, reliable, sustainable and modern energy for all. Further information on targets available here: <https://sustainabledevelopment.un.org/sdg7>
- 2 Global Plan of Action for Sustainable Energy Solutions in Situations of Displacement, website: <https://www.humanitarianenergy.org>
- 3 <https://www.unhcr.org/en-us/clean-energy-challenge.html>
- 4 <https://www.mercycorps.org/research-resources/what-we-know-about-energy-gender-and-gbv-emergencies>
- 5 <https://gbvguidelines.org/en/>
- 6 <https://gbvguidelines.org/en/pocketguide/>
- 7 <https://www.chathamhouse.org/sites/default/files/publications/research/2019-03-29-EnergyProgrammeVAWG.pdf>
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- 21 Lahn, G. and Grafham, O. (2015). Chatham House Report for the Moving Energy Initiative - Heat, Light and Power for Refugees: Saving Lives, Reducing Costs
- 22 Rosenberg-Jansen, S. (2020). Leaving No-one Behind: Global Governance of Energy in the Humanitarian Sector <https://www.routledge.com/Energy-Access-and-Forced-Migration-1st-Edition/Grafham/p/book/9781138543386>
- 23 Separate tier and target systems exist for [clean cooking targets](#) and [electricity access](#).
- 24 For more information on energy tiers, see <https://www.esmap.org/node/55526> and <https://www.worldbank.org/en/topic/energy/publication/energy-access-redefined>
- 25 <https://openknowledge.worldbank.org/bitstream/handle/10986/24368/Beyond0connect0d000technical0report.pdf?sequence=1&isAllowed=y>
- 26 There are many categories within the tiers (for household electricity, household cooking, community access to services such as street lighting), and within this the different tiers refer to different appliances and levels of power. For example, tier 3 electricity access (widely considered to be the minimum standard for modern electricity) requires consumers to have a minimum of 1.0 kilowatt hours a day per household, for at least eight hours a day and three hours a night). This includes enough power for general lighting, phone charging, watching a television, powering a fan, and enough electricity for medium-power appliances (such as a kettle). For cookstoves, this is considerably more complex as the ranking of tiers requires both understanding the type of fuel burnt and how it is being burnt - in what type of cookstove. As a general rule of thumb, only stoves with a ranking of tier 4 for indoor emissions cookstoves will produce health and environmental benefits for household users.
- 27 <https://www.unhcr.org/5db16a4a4.pdf>

- 28 UNHCR. (n.d.). Age, gender and diversity (AGD) - UNHCR | Emergency Handbook. Retrieved from <https://emergency.unhcr.org/entry/250649/age-gender-and-diversity-agd>
- 29 Ibid.
- 30 Ibid.
- 31 Davis, K. (2008) 'Intersectionality as buzzword: a sociology of science perspective on what makes a feminist theory useful' *Feminist Theory* 9(1): 67–85
- 32 Inter-Agency Standing Committee. (2015). Guidelines for Integrating Gender-Based Violence Interventions in Humanitarian Action: Reducing risk, promoting resilience and aiding recovery. Retrieved from https://gbvguidelines.org/wp/wp-content/uploads/2015/09/2015-IASC-Gender-based-Violence-Guidelines_lo-res.pdf
- 33 <http://www.inclusioncharter.org/>
- 34 Adapted from: Tanja Winther, Margaret N. Matinga, Kirsten Ulrud & Karina Standal (2017) Women's empowerment through electricity access: scoping study and proposal for a framework of analysis, *Journal of Development Effectiveness*, 9:3, 389-417.
- 35 <https://www.lightingglobal.org/resource/procurement-of-stand-alone-solar-kits-for-humanitarian-aid/>
- 36 For more information please see [Shining a Light: How lighting in or around sanitation facilities affects the risk of gender-based violence in camps](#) and [Lighting the Way: Lighting, sanitation and the risk of gender-based violence in Omugo extension camp, Uganda](#).
- 37 Note: Oxfam now recommends that projects now provide a minimum of two lighting items per household to increase access to lighting for all household members, addressing intra-household inequalities.
- 38 For more information please see [JORDAN IMPACTS OF ELECTRICITY: PARTICIPATORY IMPACT ASSESSMENT OF ELECTRICITY ACCESS IN ZAATARI AND AZRAQ CAMPS DECEMBER 2018](#).
- 39 See UNHCR's [Global Strategy for Safe Access to Fuel and Energy \(2014-2018\)](#) for more detail.
- 40 For more information please see The Moving Energy Initiative's [Pioneering market systems for energy access in humanitarian settings – the case of Burkina Faso](#).
- 41 Normal best assessment practice is to include persons with disabilities within the same age and sex groups consulted. However, assessments that address GBV risks and mitigation mechanisms specifically target marginalized community groups and therefore call for separate consultations. It might also be necessary to group FGDs of people with disabilities by the functional issue they need to mitigate (hearing, vision, mobility, cognition, self-care, etc.) to focus on access issues and opportunities of specific energy products and solutions.
- 42 Note that there may be overlap between categories, for example, with many business/livelihoods activities (especially for women) taking place within the home vs. a separate space.
- 43 Adapted from Mercy Corps' [Market Systems Development Resource Guide](#), 2019.
- 44 A Summary of Technology-enabled Finance for Solar Systems in the Sahel: Burkina Faso: <https://mei.chathamhouse.org/file/2249/download?token=d-mcXRLa> ; The Energy Situation in Goudoubo Refugee Camp, Burkina Faso: <https://www.chathamhouse.org/sites/default/files/publications/research/2016-05-19-mei-energy-situation-goudoubo-refugee-camp-vianello.pdf>; Pioneering Market Systems for Energy Access in Humanitarian Settings – Burkina Faso: <https://mei.chathamhouse.org/file/2427/download?token=vt2XbNQe>
- 45 https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Dec/IRENA_Refugee_settlements_2019.pdf
- 46 <https://reliefweb.int/sites/reliefweb.int/files/resources/study-coordination-humanitarian-clusters-alnap-2015.pdf>
- 47 A Minimum Expenditure Basket (MEB) is a tool used by cash and vouchers assistance (CVA) actors to: support the calculation of the transfer amount of a multipurpose/multisectoral cash grant, contribute to better vulnerability analysis and monitoring, and improve collaboration. Guidance on [developing MEBs](#) is available from the Cash Learning Partnership.

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About Mercy Corps

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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