



National child project under the GEF Africa Mini-grids Program Burkina Faso

Part I: Project Information

Name of Parent Program

GEF-7 Africa Minigrids Program

GEF ID

10474

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

National child project under the GEF Africa Mini-grids Program Burkina Faso

Countries

Burkina Faso

Agency(ies)

UNDP

Other Executing Partner(s)

Burkinab? Rural Electrification Agency (ABER)

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

United Nations Framework Convention on Climate Change, Climate Change, Focal Areas, Type of Engagement, Stakeholders, Climate Change Mitigation, Energy Efficiency, Renewable Energy, Enabling Activities, Influencing models, Deploy innovative financial instruments, Convene multi-stakeholder alliances, Demonstrate innovative approach, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Consultation, Partnership, Information Dissemination, Participation, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Trade Unions and Workers Unions, Communications, Education, Behavior change, Awareness Raising, Public Campaigns, Private Sector, SMEs, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Capital providers, Non-Grant Pilot, Project Reflow, Large corporations, Indigenous Peoples, Beneficiaries, Local Communities, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Capacity Development, Knowledge Generation and Exchange, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Exchange, Innovation, Learning, Theory of change, Adaptive management, Indicators to measure change, Knowledge Generation

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

6/19/2021

Expected Implementation Start

2/1/2022

Expected Completion Date

2/1/2026

Duration

48In Months

Agency Fee(\$)

83,210.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-1	To promote innovation and technology transfer for sustainable energy breakthroughs for decentralized renewable power with energy storage	GET	924,566.00	104,493,243.00
Total Project Cost(\$)			924,566.00	104,493,243.00

B. Project description summary

Project Objective

Supporting access to clean energy by increasing the financial viability and promoting scaled-up commercial investment in minigrids in Burkina Faso

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Policy and Regulation	Technical Assistance	Stakeholder ownership in a national minigrid delivery model is advanced, and] appropriate policies and regulations are adopted to address barriers and facilitate investment in RE minigrids with storage.	<p>1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification</p> <p>1.2. Formulation of rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data</p> <p>1.3. Domestication of quality standards for solar minigrid components, and institutional capacity of national standards organizations/bureau strengthened</p> <p>1.4. Capacity building of the regulator ARSE to fully play its role (tariffs, etc.) vis-?-vis texts emanating from the Energy Law</p> <p>1.5. Establishing / Operationalizing a certification scheme for minigrids installers building on ECREEE?s Regional Certification Scheme</p> <p>1.6. Minigrid DREI techno-economic analyses carried out to</p>	GET	164,941.00	5,418,916.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2. Project and Business Model Innovation with Private Sector Engagement	Investment	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in RE minigrid development.	2.1. Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids (in regions complementing WB and AfDB investments).	GET	265,201.00	51,383,938.00
Business Model Innovation with Private Sector	Technical Assistance	Innovative business models based on cost reduction operationalized, with strengthened private sector participation in low-carbon mini-grid development.	2.2. Capacity of winning tender bidders / new COPELs and private sector actors (industry associations such as APER and others) strengthened to develop and implement innovative business models and cost-reduction levers. 2.3. Support provided to establish and grow a national industry association for private sector developers	GET	65,627.00	8,058,847.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Scaled-up financing	Technical Assistance	Financial sector actors are ready to invest in a pipeline of RE minigrids and concessional financial mechanisms are in place to incentivize scaled-up investment.	<p>3.1. Domestic financial sector capacity-building on business and financing models for minigrids</p> <p>3.2. General market intelligence study on minigrids in regions complementary to WB and AfDB investments prepared and disseminated amongst public officials and finance community</p> <p>3.3. Support the development and implementation of innovative financial instruments for both supply and demand side (consumers and service providers) to facilitate investment in and viability of minigrids</p> <p>3.4. Feasibility study support provided to minigrid developers, creating a pipeline of investible assets</p>	GET	166,172.00	4,211,733.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
4. Digital, Knowledge Management and Monitoring and Evaluation	Technical Assistance	Digitalization and data mainstreamed, across stakeholders, into local minigrid market development. Increased awareness and network opportunities in the minigrid market and among stakeholders, and lessons learned for scaling up rural electrification using solar PV-battery minigrids.	<p>4.1: A digital strategy is developed and implemented, including linkages to and following guidance from the regional project</p> <p>4.2: Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction</p> <p>4.3: A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project</p> <p>4.4: M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation</p> <p>4.5: Engage with regional project,</p>	GET	178,954.00	26,011,024.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
				Sub Total (\$)	840,895.00	95,084,458.00
Project Management Cost (PMC)						
GET			83,671.00		9,408,785.00	
Sub Total(\$)			83,671.00		9,408,785.00	
Total Project Cost(\$)			924,566.00		104,493,243.00	

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Burkinab? Rural Electrification Agency (ABER)	Grant	Investment mobilized	10,400,000.00
Recipient Country Government	Burkinab? Rural Electrification Agency (ABER)	Loans	Investment mobilized	65,100,000.00
Donor Agency	African Development Bank (+ European Union/GCF + Others) + Sustainable Energy Fund for Africa (SEFA)	Grant	Investment mobilized	16,133,381.00
Donor Agency	African Development Bank (+ European Union/GCF + Others)	Loans	Investment mobilized	5,960,000.00
GEF Agency	UNDP TRAC	Grant	Investment mobilized	800,000.00
GEF Agency	UNDP	Grant	Investment mobilized	2,080,867.00
Donor Agency	Swedish Cooperation (Sida)	Grant	Investment mobilized	2,918,995.00
Donor Agency	UNCDF	In-kind	Recurrent expenditures	600,000.00
Donor Agency	ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE)	In-kind	Recurrent expenditures	500,000.00
Total Co-Financing(\$)				104,493,243.00

Describe how any "Investment Mobilized" was identified

- The grant and loan from ABER correspond to current investment from the Government of Burkina Faso to increase rural electrification through low-carbon mini-grids; - The grant and loan from the African Development Bank includes investment in the AfDB/GCF Yeleen Project and in the Sustainable Energy Fund for Africa (SEFA). More precisely: o Grant from African Development Bank (+ European Union/GCF + Others): USD 27.66 million covering 7 years, of which only 4 are relevant for the AMP

project; o Grant from Sustainable Energy Fund for Africa (SEFA): USD 0.983 million covering 6 years, of which only 2 are relevant for the AMP project. o Total grant from African Development Bank (+ European Union/GCF + Others) + Sustainable Energy Fund for Africa (SEFA): $(27.66*4/7)+(0.983*2/6)=$ USD 16.133381 million. o Loan from African Development Bank (+ European Union/GCF + Others): USD 10.43 million covering 7 years, of which only 4 are relevant for the AMP project. Hence a relevant loan co-financing of $10.43*4/7 =$ USD 5.96 million. - The grant and loan from the African Development Bank includes investment in the AfDB/GCF Yeleen Project and in the Sustainable Energy Fund for Africa (SEFA); - UNDP cash co-financing (TRAC) and grant correspond respectively to core UNDP resources mobilized for the project and contributing directly to the project budget (USD 800,000), and three other projects (UNDP/PACOS, UNDP/GOLCOS and PAMED) which will support Components 1 and 2 of the project; - The grant co-financing from the Swedish Cooperation (Sida) is an aggregation of several initiatives (AECF REACT, Beyond the Grid Fund for Africa and the Liptako-Gourma rural electrification project) which will contribute to achieving the objectives of the project. For all these contributions, only co-financing related to the period overlapping with the Burkina Faso child project and relevant to the child project's objectives have been included.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNDP	GET	Burkina Faso	Climate Change	CC STAR Allocation	924,566	83,210
Total Grant Resources(\$)					924,566.00	83,210.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

80,000

PPG Agency Fee (\$)

7,200

Agency	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)
UNDP	GET	Burkina Faso	Climate Change	CC STAR Allocation	80,000	7,200
Total Project Costs(\$)					80,000.00	7,200.00

Please provide justification

On exceptional basis, GEF Agencies can request a higher PPG amount with justification. The higher PPG amount in Burkina Faso is based on bottom-up cost estimates for a PPG team of international and national consultants to develop the CEO Endorsement Request. These cost estimates, itemized by consultant, are set out below, totaling USD 83,684. As this is higher than the requested PPG of USD 80,000, these additional costs above USD 80,000 will be absorbed from other non GEF sources. Of note, PPG team costs are higher to account for providing adequate security to team on the ground when carrying out technical studies and design work. In addition, because of security concerns, recruiting specialists to carryout work in Burkina Faso consists of a smaller pool of technical specialists who have taken security concerns into account in their daily rates. PPG Team Leader International \$44,032 Mini-Grid Expert International \$8,900 Social & Environmental Safeguards Expert International \$11,358 Gender Specialist International \$9,394 National Consultant National \$10,000 TOTAL \$83,684

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	14383	0	0
Expected metric tons of CO ₂ e (indirect)	0	747000	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)		14,383		
Expected metric tons of CO ₂ e (indirect)		747,000		
Anticipated start year of accounting		2021		
Duration of accounting		20		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
Solar Photovoltaic select		0.41		<input type="checkbox"/>
Energy Storage select		1.00		<input type="checkbox"/>

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		5,517		
Male		5,516		
Total	0	11033	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

Systems description (environmental problems, root causes and barriers)

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With a young and rapidly growing population of over 20 million, of which 70.2 percent (World Bank, 2019)[1]¹ live in rural areas, Burkina Faso is the fifth most populous country in West Africa. The country's Growth Domestic Product (GDP) growth was estimated at 6% in 2019, bolstered by increased public investment and higher prices for gold and cotton, which are the country's two main exports. However, this has not translated into improved standard of living for most of the population. The rates of poverty and unemployment remain very high in this landlocked country, particularly in rural areas with 36.7% of the population living below the poverty line of US\$1.90 per day, in 2019 (World Bank 2020). In fact, 90% of people living below the poverty line in Burkina Faso are in rural areas. This rural predominance of poverty originates from prevailing inequalities in terms of illiteracy, gender and lack of basic infrastructure and services such as electricity. Moreover, Burkina Faso is classified as a least-developed country (LDC) and has a Human Development Index score of 0.4 in 2019[2]², which is in the 'Low Human Development' category positioning the country at 182 out of 189 countries and territories.

The country's economy is predominantly dependent on the agricultural sector, which accounts for roughly 40% of GDP. The sector employs 75% of the total population while over 80% of the rural population depend mainly on small-scale subsistence farming as their main source for sustenance and revenues. The sector is however, characterized by low productivity owing to the fact it is mostly rain-fed, thus highly subject to adverse impacts of climate change such as erratic rainy seasons, variable rainfalls, floods, droughts, bush fires and other extreme events.

Burkina Faso, as the rest of the world has been drastically affected by the COVID-19 pandemic. The pandemic has brought about social and economic impacts and hardships to the population in general. It has particularly affected the informal sector that provides a good part of the GDP in Burkina Faso and mobilizes 70% of total non-agricultural employment (UNDP,2020)[3]³ Some impacts include disruption of supply chains (foods, fuels and other goods and services), productive activities and demand for goods and services. The vulnerability of the rural population, which is disproportionately poorer than their counterparts in urban areas, is further worsened by the pandemic because they mainly rely on subsistence farming to make a living. From a social point of view, it is expected that poverty

and inequalities will increase as a result of the pandemic, increasing the prospects of insecurity and social protests.

One of the main impediments to Burkina Faso's socioeconomic development and effective post-COVID-19 recovery is the country's dire energy situation. Burkina Faso has one of the lowest electricity access rates globally with a national electrification rate of only 25% in 2019, with a significant disparity between urban areas with 65% of the urban population having access, compared to only 10% in rural areas. Moreover, considerable socio-economic inequalities exist in terms of access considering that less than 5% of the poorest households versus 50% of the wealthiest are connected to the national grid. A similar urban-rural electrification gap can be observed in SMEs, public health and education facilities across the country. For instance, electricity access rate stands at 10.5% for SME in urban areas and only 1.9% of rural SME have access^[4]. Access to electricity is an important lever for poverty alleviation, especially for rural women and young people who are predominantly active in the agriculture value chains. Therefore, improving access to electricity in the country is important to reducing poverty, addressing gender inequalities and many other forms of exclusion (financial, etc.).

A significant part of Burkina Faso's population remains without access to electricity is a result of systemic barriers such as policies, regulatory and institutional framework as well as other market barriers such as lack of access to finance, lack of technical skills, etc. preventing private sector investment. Electricity prices in Burkina Faso are among the highest in West Africa at (USD 0.22/kWh) (ECEEE 2019)^[5] on average. To complicate matters, these prices are lower than electricity generation costs (USD 0.26/kWh), with the difference subsidized by the Government. This is mostly explained by over reliance on thermal generation running on imported diesel and heavy fuel oil (HFO), which accounts for 288MW of the total 355MW installed capacity (SONABEL 2017 Annual Report). Yet, the sector is characterized by a dire deficit in the power supply, which was estimated between 80-110 MW in 2017, with supply barely meeting demand during non-peak periods.

Therefore, the country is confronted with the following two challenges: i) the need to increase substantially the power supply in urban and rural areas to meet a fast-growing demand; ii) Improve the reliability, affordability and quality of the overall service. To address these challenges, the Government of Burkina Faso (GoBF) has started to harness its renewable energy potential, in particular, its excellent solar potential with solar irradiation of 5.5kWh/m²/day for 3,000 to 3,500 hours per year, creating considerable opportunities for the development of decentralized solar energy solutions. Currently, the GoBF is pursuing a mix of public and private sector investments in new grid-connected and off-grid solar power plants in order to reduce generation costs. Importantly, the regulatory and institutional framework for the power sector in Burkina Faso is evolving, most notably, with enactment of the

Electricity Law of 2017, which opened the door to some investments in the energy sector including West Africa's biggest solar power plant, the 33 MW Zagtouli power plant on the outskirts of the capital Ouagadougou. Energy produced by the Zagtouli plant cost 45 CFA francs, about 8.4 US cents per kilowatt-hour^[6], i.e. less than a third of the current average electricity generation costs in Burkina Faso.

However, market risks continue to impede increased private sector investment especially in rural electrification amidst recent reforms in regulation. In off-grid areas more specifically, the key barriers and risks that currently prevent the effective deployment of decentralized renewable energy solutions such as solar PV minigrids are detailed in Table 1.

Table 1: Barriers Impeding The Scale-Up Of Private Sector Investment In Solar PV Minigrids

Barrier Category	Description
Energy Market Barriers	<ul style="list-style-type: none"> <li data-bbox="581 867 1393 1014">? At the moment, unclear and unfavorable rules for minigrids development prevail i.e., the existing delivery model/framework through electricity cooperatives (COOPEL) is restrictive and impedes commercial investment in the minigrid sector. Most minigrids operated by COOPELs have failed to sufficiently tap into productive uses. <li data-bbox="581 1052 1393 1255">? The legal status of private sector in rural electrification market has not been sufficiently clarified. Many sector stakeholders still debate permissibility, which impairs bankability and adds to sector confusion. Few companies took a leap of faith by investing in minigrids but are now having challenges with the regulator and utility, ABER and SONABEL around tariffs, licensing, scaling-up, co-existence with the grid, etc. <li data-bbox="581 1293 1393 1381">? The sheer lack of specific rural electrification strategy puts renewable minigrids at a disadvantage as grid extension is favored. There is an unclear role of clean energy minigrids in the market structure. <li data-bbox="581 1419 1393 1507">? Local developers have limited capacity and experience with development of business and financing plans that would be bankable within the local market.
Developer Risks	<ul style="list-style-type: none"> <li data-bbox="581 1545 1393 1633">? There is a limited availability of public GIS data to facilitate investment decision-making, consumer decision making, or policy decision making. <li data-bbox="581 1671 1393 1724">? Industry associations in the mini-grids sector have a limited influence to lobby or pressure for change along a shared platform.

Financial Barriers	<p>? Fiscal incentives for minigrids are unclear at this stage. The clarity, applicability, and enforceability of the fiscal regime under the COOPEL framework is not well-defined.</p> <p>? Developers of solar PV minigrids do not have access to financing because financial institutions are not equipped to understand minigrid models, which they consider risky to lend to.</p>
Labor Risks	<p>? Both public and private sector actors lack technical capacity when it comes to technological and business models innovations in minigrids.</p>
Technology/digital Barriers	<p>? The market is characterized by components of relatively poor quality. A lack of quality management within the market damages the perception of all solar products.</p> <p>? <i>Payment Risk</i>: Regulatory resulting in lack of fintech companies offering USSD services. Without access to the USSD network most of Burkina Faso's emerging fintech industry is unable to serve the rural poor.</p> <p>? Low penetration and usage of digital tools by stakeholders (rural electrification agency, regulator and minigrid developers).</p>
End-User Credit Risk	<p>? The existing policy/regulatory framework is not conducive to women and youth entrepreneurs' engagement in the renewable energy and mini-grids business, and not oriented towards unlocking the untapped potential for green jobs and productive uses.</p> <p>? Existing consumer associations, especially prominent women's groups, are not well versed in or familiar with solar minigrids as solutions to electricity, which creates a social acceptance risk for the developers.</p> <p>? Due to extreme climate events, most smallholder farmers lose income and sell their assets sometimes.</p>
Hardware Risk	<p>? Poor quality installations can undermine the confidence of the market in solar minigrids.</p>

Addressing the lack of access to sustainable and affordable electricity in rural areas is consistent with the GoBF's national strategies and plans, described in Table 7.

Baseline scenario and baseline projects

In the baseline, the RE minigrids market is not yet very developed, and key aspects of the mini-grid delivery models are still undefined and need to be further evaluated. Currently, almost all existing

minigrids are owned and operated by electricity cooperatives (COOPELs), which in practice include community members with limited technical and financial expertise. The minigrid tariffs are capped and too low to be cost-reflective, which deters private sector investments in the sector. The GoBF is heavily subsidizing COOPELs to allow them to maintain their services, which is another incentive for exploring alternative delivery models. The level of subsidy that the GoBF will be willing and able to commit in the future for new minigrids is not determined yet, and will be assessed in the scope of this project.

There are further shortcomings since the design, implementation and operation of solar PV minigrids do not currently consider cost reduction levers and/or commercially viable business models. Even though agriculture is the main economic pillar in Burkina Faso, and is expected to contribute significantly to rural development, there are no commercially viable business models currently for integrating solar PV minigrids in agricultural value chains. Hence, the development of agricultural value chains using renewable electricity remains sub-optimal. Finally, projects in the baseline use mostly diesel or hybrid minigrids, implying some level of greenhouse gas emissions. In the absence of the UNDP-GEF project, this situation will endure or change relatively slowly with the overall result that scaling up investments in solar PV-battery minigrids will be slower than otherwise.

For the project to achieve its objectives, a number of project partners and partner initiatives have been identified. The project will be implemented in a context where there are parallel initiatives with which synergies should be formed to provide maximum benefits to the beneficiaries. The parallel and complementary initiatives are described in Table 2.

Table 2: Partners from Donor Organizations and other relevant Projects / Stakeholders

Donor	Project/Activity	Synergies and Collaboration Opportunities
AfDB - African Development Bank	Sustainable Energy Fund for Africa (SEFA) Technical assistance grant for mini-grid sector reforms with a budget of EUR 0.9 million	PC 1, PC 2 and PC 3. Currently, an assessment of the minigrid sector has been launched by the AfDB. This study will analyze the COOPEL model closely. Moreover, the AfDB will support ABER

Donor	Project/Activity	Synergies and Collaboration Opportunities
	<p>Yeelen Rural Electrification project aims to install 100 green mini-grids, plus SHS, plus productive use equipment. Planned from 2019 to 2025 and funded by the GCF (USD 27.1 million; 2019-2025), USD 10 million African Development Bank and the French Development Agency (AFD) and the EU (USD7.3 million), aims to create a favorable environment for investment and operation of mini solar grids by the private sector. The project will include the installation of 100 mini-grids (11.4 MW; 50,000 household connections; 3,300 connections for productive use) in Burkina Faso using results-based payments to private sector operators, improving the regulatory framework to mobilize private sector capital in rural electrification investments based on renewable energies, and the supply of equipment for productive use to support economic activity in the targeted regions.</p> <p>Desert to Power is regional umbrella initiative starting in 7 countries originally with a total budget of EUR 185.52 million including a EUR 136.7 million loan, under which the Yeelen project is implemented. In Burkina Faso, the project will lead to the construction of four 52MW solar PV plants and extend the distribution network to connect 30,000 new HH. This project is planned for 2020 to 2024.</p>	<p>in development of the e-waste framework, analyses/mapping of productive uses/values chains as well as setting-up task teams in the framework of Desert to Power. To capitalize on these significant synergies, the AMP project will mobilize co-financing and add-value in terms of promotion of the productive uses of energy and sharing-knowledge on minigrad cost reduction. The Yeelen project will mostly be implemented in different areas than the AMP child project. For example, the policy and regulatory work planned under the Yeelen project does not involve a DREI analysis, therefore, the AMP project will add-value by ensuring DREI serves as a tool to the Yeelen Project. The synergy between the various projects of the AfDB, especially Yeelen project, has been translated into a co-financing of USD 22,093,381.</p>

Donor	Project/Activity	Synergies and Collaboration Opportunities
	<p>Regional Off-Grid Electrification Project (ROGEP), in cooperation with ECREEE, provides market development assistance through technical capacity building and grant financing to start-up plus credit lines to regional and local entrepreneurs and CFI for off-grid clean energy projects in 15 ECOWAS member states plus Cameroon, Chad, Mauritania and Central African Republic. Minigrids are, however, out-of-scope for ROGEP, which focus on SHS and standalone technologies (solar appliances, pumps, etc.).</p>	
<p>European Union</p>	<p>APC-EU Energy Facility: decentralized rural electrification project in Ziro and Gourma regions with a budget of EUR 12 million from 2014-2020 with a possibility of extension.</p>	<p>The EU is very involved in the energy sector, in Burkina Faso. The EU will be consulted in the implementation of all components of the AMP project. Moreover, the EU will be represented on the Project Board.</p>
	<p>APC-EU Energy Facility: Construction of 12 solar mini-grids (with total capacity of 3.2MW) by SINCO and distribution of SHS in the North and Central North regions. Total budget is EUR 12.4 million, co-funded by EUR 8 million and AFD EUR 4.4 million implementation during the 2014-20 timeframe.</p>	
	<p>Yeelen Rural Electrification Project EU will provide EUR 6 million for result-based grant.</p>	
<p>AFD ? Agence Française de Développement</p>	<p>Access to the electricity network for the populations of northern Burkina Faso: subsidized grid connections in border areas in the North and Sahel regions; target: 27,000 new customers through ?3m grant to SONABEL.</p> <p>Status ongoing</p>	<p>AFD is involved in the flagship Yeelen Project and other initiatives. As such, it will be included on the Project Board as a key development partner involved in the energy sector. No co-financing is expected from the AFD at this stage.</p>
	<p>Support Yeelen Solar Plan 2025 (including rural electrification component)</p>	

Donor	Project/Activity	Synergies and Collaboration Opportunities
	Construction of solar PV mini-grids and distribution of SHS in 42 localities in Hauts-Bassins and Boucle du Mouhoun regions; total capacity of 1.5MW; will electrify 12,400 households, business and public facilities. Credit facility US\$10m	
IRENA/Abu Dhabi Fund for Development (ADFD)	Decentralized Rural Electrification Project (PERD/EnR) funded by the Abu Dhabi Development Fund, IRENA and the GofBF for \$10 million aims to electrify 42 localities in the regions of the Hauts Bassins and the Boucle du Mouhoun via solar PV minigrids. The project will target productive use of energy such as solar pumping, cold chain, milling, etc. Concretely, the project consists of developing new/novel generation of energy services platforms. A low-voltage mini-grid will be built in each locality to supply basic social services, households and economic units. The project will impact 73,500 beneficiaries, of which approximately 33,000 direct beneficiaries connected to the electricity service (i.e. 4,260 households) and 44,100 indirect beneficiaries as well as 438 socio-economic and community infrastructures including 70 schools, 28 health centers.	Through PC2, PC3, PC4 this project is closely aligned with the AMP Child project.
Sida	REACT-EEP with funding from Sida and DFID has funds for ESCOs in Burkina focusing on the agribusiness and renewable energy nexus, to ensure they rapidly scale and transition to external financing and sustainability. In the framework of the first challenge fund, 3-4 ESCOS that submitted minigrid projects were selected. Connection subsidies are provided in the framework of this project but only for customers in Ouagadougou and Bobo Dioulasso. These projects are ongoing and can be good candidates for co-financing and pilot projects. Budget ?4.6m between 2019-2022.	SIDA is highly active in the energy sector in Burkina Faso. This partner was very involved in the PPG phase participating in a series of meetings/interviews. Through its funding portfolio, SIDA will provide co-financing of USD 2.9 million in relation o all 4 project components. As a partner, SIDA is expected to support Output 1.1 (inclusive national dialogue on minigrids) , Output 2.3 (strengthening the industry association) and Output 3.3 (Minigrid Funding Facility) as early as 2 nd quarter of 2021 ahead of the start of the AMP project. In fact, Sida has started the preparatory work around Output 3.3 by supporting the development and implementation of innovative financial instruments for both supply and demand

Donor	Project/Activity	Synergies and Collaboration Opportunities
<p>+UNDP & UNOPS</p>	<p>Beyond the Grid (\$63M across 6 countries): The three main components of The Beyond the Grid initiative are: 1) investment/financing innovation; 2) convening/dissemination (multi-stakeholder taskforce); 3) Information and market intelligence (studies and data). Pre-qualification in progress, technology selection ? solar home system (SSH) or nano-grid. Minigrids have been removed due to regulatory barriers (pricing: cap rate, security). KfW has also committed an additional funding of \$25M to BGFA initiative and more donors and private funds are in discussions to join the initiative.</p> <p>Support for Rural Electrification by RE systems in the Liptako-Gourma Region, in Mali, Niger and Burkina Faso implemented by UNDP and UNOPS under the coordination of the Liptako-Gourma Authority, with ECREEE as partner. The project started in 2021 and includes 5 components: 1) institutional support, 2) installation of off-grid power supply solutions, 3) Technical support for the improvement of regulatory frameworks, 4) Support for the development of the local private sector in the domain of renewable energy mini-grids and 5) Promotion of productive energy and ecological investment in the cross-border regions of Liptako-Gourma. Two minigrids are expected in the North of Burkina Faso. Total budget of \$8 485 765 to be implemented over 37 months starting in 2021.</p>	<p>side (consumers and service providers) to facilitate investment in minigrids in collaboration with UNCDF. Total co-financing of USD 2,918,995 will be leveraged from Sida.</p> <p>-</p> <p>-</p>
<p>Denmark</p>	<p>Water, energy and agriculture project in fragile border areas with a budget of about USD 8.3 million.</p>	<p>Synergy with PC1 and PC2. No co-financing expected although synergy is clearly established.</p>

Donor	Project/Activity	Synergies and Collaboration Opportunities
KfW + FFO	<p>PATRIP aims to stabilize fragile border regions by focusing on cross-border projects to promote local conflict resolution mechanisms, legitimate governance and social cohesion. To this end, PATRIP combines basic infrastructure with cross-border political dialogue between communities and state administration. An important element in this context is the involvement of state actors to strengthen confidence in state security. Bringing together communities from both sides of the border can yield several positive effects in this context, and promote closer cooperation on both a state- as well as an inter-communal level, by:</p> <ul style="list-style-type: none"> ●Creating a safer and more enabling environment for trade; ●Increasing the reach of public services; ●Providing more opportunities for cultural exchange. <p>The current project is budgeted for USD 11.7 million.</p>	<p>Synergy with PC1 and PC2. No co-financing expected although synergy is clearly established.</p>
Millennium Challenge Corporation (MCC)	<p>USD 450 million compact agreement with the Government of Burkina Faso aims to address the country's main binding constraint to economic growth: access to affordable and reliable electricity. The Strengthening Electricity Sector Effectiveness Project; the Cost-Effective and Reliable Electricity Supply Project; and the Grid Development and Access Project.</p>	<p>Though the MCC is focused on grid-extension, through the engagements during the PPG phase, the MCC has indicated interest in supporting some outputs aside from common thematic areas such as capacity-building of institutional actors. The MCC is specifically interested in the promotion of the productive use of energy and gender mainstreaming aspect of the AMP project. Though the MCC indicated interest in co-financing some outputs of the AMP project where synergy is clear, at this stage it is not able to commit to a specific amount. This will be done mostly likely in 2022, when their interventions are more clearly defined.</p>

Donor	Project/Activity	Synergies and Collaboration Opportunities
Water and Energy for Food (WE4F) - \$63M	This multi-donor regional program with Swedish Cooperation, German Cooperation, Netherlands Cooperation and USAID managed by GIZ with a budget of USD 63 million covering West Africa aims to scale water-energy-food innovation for food security, gender and poverty reduction in an environmentally-sustainable way. It would be good to leverage the focus on gender and E4PU component to benefit BF the child project. The project is on-going and is expect to end in 2024.	Synergy with PC2 and PC4. No co-financing expected although synergy is clearly established.
BOAD	<p><u>Program for the Promotion of Private Investments in the Solar Energy Sector (PIPS) in West Africa</u></p> <p>Implemented by BOAD with USD 70 million with funding from GCF, the Program aims to address the financial and technical barriers to investment in the solar minigrid market in the Least Developed Countries ("LDCs") in the WAEMU region namely, Benin, Burkina Faso, Guinea-Bissau, Mali, Niger, Togo.</p>	Through technical assistance under PC3 and PC4, the AMP child project will support private sector in developing and submitting bankable projects for loans. Additionally, the project will facilitate roadshows, learning and knowledge-sharing events involving industry association, BOAD and local financial institutions. Though no co-financing is expected, minigrid companies will be support by AMP to develop and submit bankable projects to BoAD.
UNCDF	UNCDF is implementing CleanStart in Burkina Faso. EUR 2 million will be disbursed over 3 years to ESCOs, financial service providers, digital service providers and incubators through calls for proposals. Performance-based financing in the amount USD 50,000-200,000 will be provided as grants, loans and guarantees.	In the framework of the AMP project, UNCDF?s long-standing experience in access to financing including digital financing/mobile banking and technical assistance support to ESCOs will be leveraged. UNCDF will be responsible party to implement PC3. In the framework of CleanStart, ESCO, financial service providers will receive training and technical assistance, which will strengthen their technical know-how and facilitate access to credit. A co-financing of USD 600,000 has been mobilized to reflect this synergy.

Donor	Project/Activity	Synergies and Collaboration Opportunities
Global Affairs Canada	Cowater International is implementing a USD 12 million project (2017-2021) funded by Global Affairs Canada (GAC), which aims to electrify 15 rural villages and 30 health and social centers with solar energy. It also aims to create income-generating activities (including a small industrial zone for 10 micro-enterprises) and to provide micro-credit solutions to rural entrepreneurs.	Synergy with components 2 and 4 but, no co-financing is expected.
Global Green Growth Institute (GGGI)	Active in BF since the end of 2018, within the Ministry of the Environment, GGGI is implementing a 5-year country program around: access to green/climate financing, "green city" (city strategy), development of rural areas (Ecovillage, E4PU, solar irrigation, land management, etc.), and Green Governance (MRV systems, Bankable project, etc.). GGGI obtained GCF Readiness funds for the project "Strategic framework and entity support for Burkina Faso" to support Coris Bank accreditation and the IEF. The project started in January 2020. The GGGI will therefore support the preparatory phase of pilot project development (consultation, feasibility study, etc.) and access to finance component through Coris Bank.	Outputs related to capacity-building, access to finance and convening and knowledge dissemination around climate change and renewable energy are key activities where the two projects can collaborate. GGGI has been leading the work around NDC and MRV in Burkina Faso.

Proposed alternative scenario

The AMP project adopts a systemic approach to increasing electricity access in off-grid communities using solar PV minigrids. The project will support the scaling up of private investments through the deployment of innovative business models and financing with a focus on achieving cost reductions of solar PV minigrids. The overall objective is to increase the commercial competitiveness of solar PV minigrids with storage through their mainstreaming in the agricultural value chain; increase the affordability of renewable electricity for end users, thereby, reducing reliance on the baseline technology (i.e. diesel minigrids). As illustrated on Figure 1, AMP will emphasize - and seek to develop comparative advantages - in three key areas of opportunity? (national dialogue on delivery

models; productive use; and mainstreaming digital innovation). This will result in overall reductions in greenhouse gas emissions. The proposed strategy is squarely aligned with the GEF Strategic Focal Areas CCM-1-1 ?Promote innovation and technology transfer for sustainable energy breakthroughs for de-centralized renewable power with energy storage?.

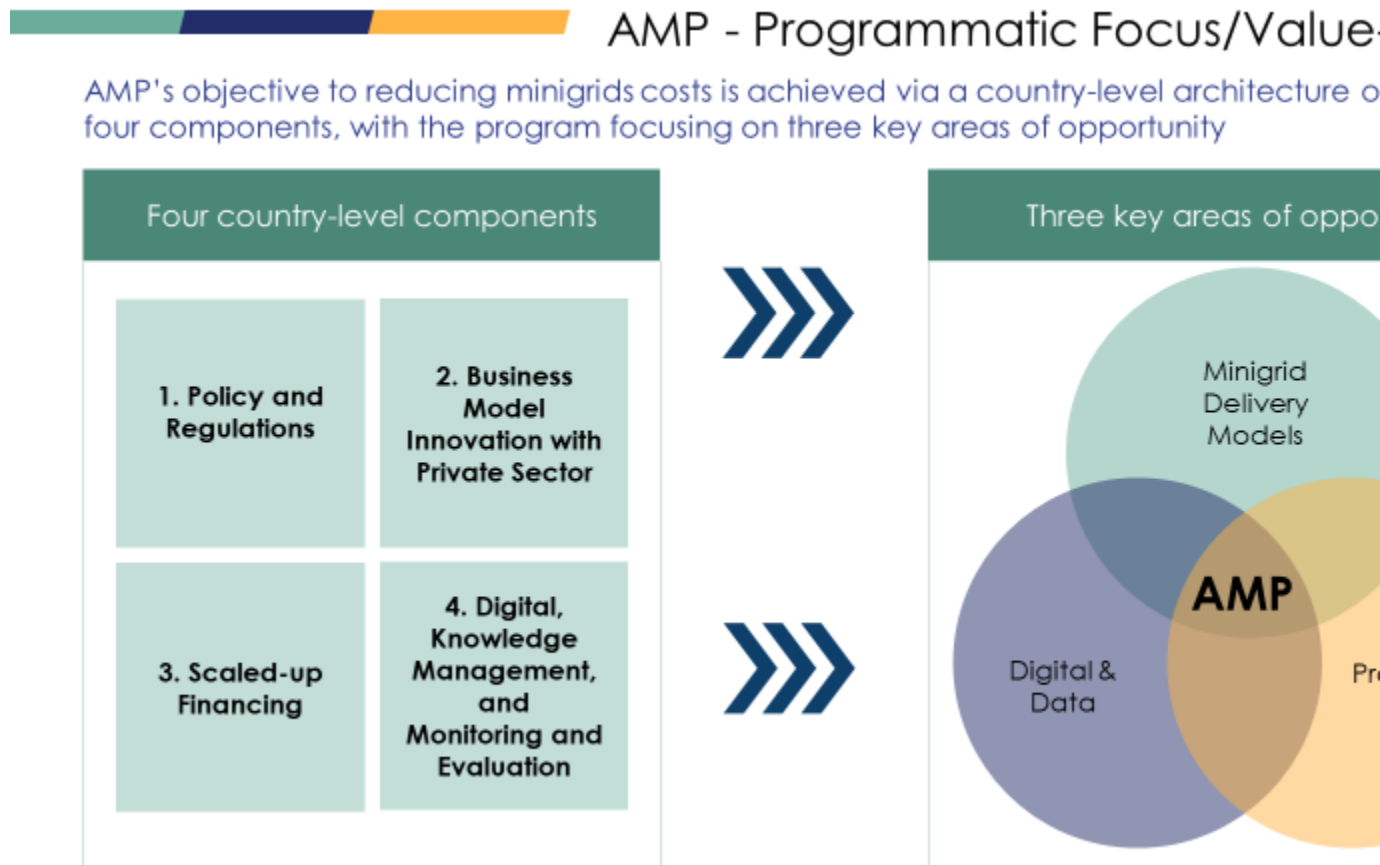


Figure 1: AMP's Objective, Architecture And Areas Of Opportunity

The project will implement a strategy founded on a solid Theory of Change (ToC, Figure 2, see also Annex 20 to the project document), mirroring that of the AMP Regional Child Project, that will lead to changes that will overcome the above barriers and achieve ?Supporting access to clean energy by increasing the financial viability and promoting scaled-up commercial investment in solar PV minigrids in Burkina Faso?. The ToC is premised on a baseline context where, while good progress is being made, solar PV minigrids are currently not competitive with fossil-fuel based alternatives and their uptake is too slow to fully capture their potential benefits. Cost reduction levers and innovative business models and financing can improve the financial viability of solar PV minigrids. When renewable energy minigrids are more competitive, private capital will then flow resulting in multiple sustainable development benefits: investment at scale, GHG emission reductions, electrification and

lower tariffs for end-users, triggering local socioeconomic development through productive energy uses and local commercial value creation, and job creation for men, women and youth. This will also improve access to basic services through electrification of public facilities such as health centers and schools.

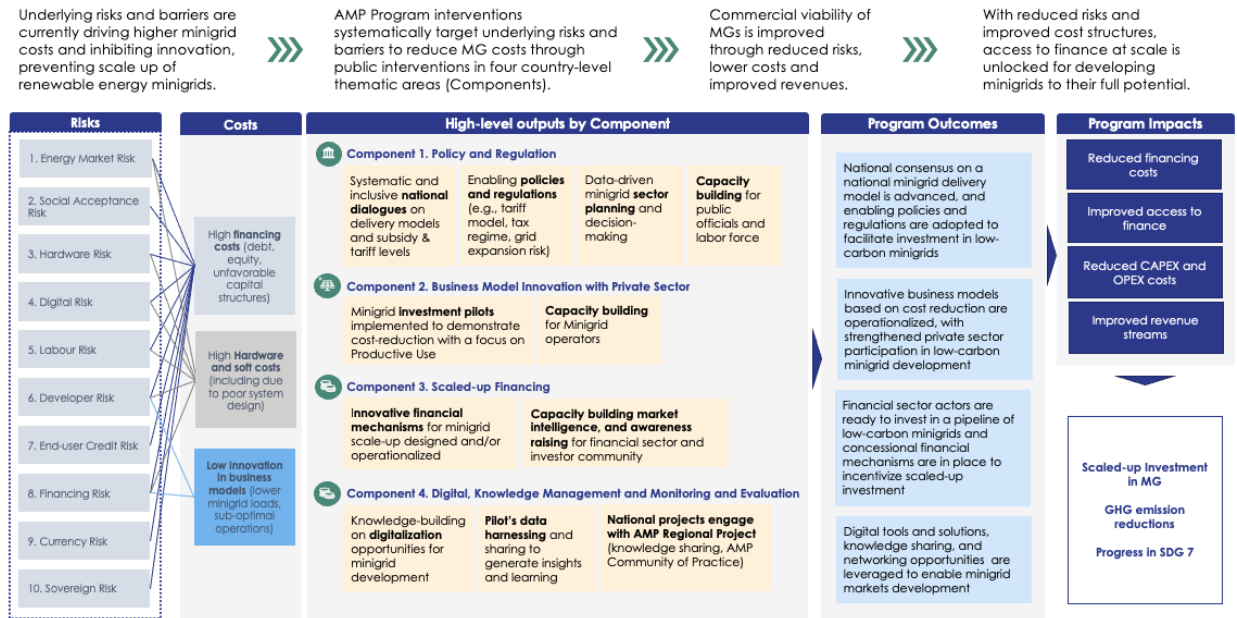


Figure 2: Theory Of Change For The AMP Burkina Faso Child Project (see also Annex 20 to the project document)

Today, decentralized power is key to complementing existing efforts at closing energy access gaps. Innovative off-grid solutions ? namely renewable energy minigrads offer great potential for electricity access, poverty reduction and GHG emission reduction. However, underlying risks in the Burkina Faso market result in three key negative drivers for clean energy minigrads: high financing costs, with elevated costs of equity, debt and prevalence of unattractive capital structures; high hardware/soft costs, reflecting market barriers and poor system design; and lack of innovation in business models, holding back revenue growth and new sources of demand. When these underlying investment risks are mitigated through the project?s cost-reduction levers and innovative business models, it will result in competitiveness and financial viability of renewable energy minigrad.

Minigrad delivery model. A minigrad delivery model, determined by the national government, is the cornerstone of a country?s over-arching minigrad regulatory framework. It defines who finances,

builds, owns and who operates and maintains the minigrids. Where applicable, it seeks to engage the private sector. A minigrid delivery model is closely associated to other key components of a minigrid framework, including tariff structures/mechanisms and subsidy levels/mechanisms. As described previously, the current delivery model for minigrids in Burkina Faso relying on electricity cooperatives (COOPEL) subsidized by ABER has shown its limitations in terms of efficiency and sustainability. A key objective of the AMP project is to promote and guide a national stakeholders dialogue towards the definition of a new delivery model that could overcome the past challenges and allow deployment at scale.

Digitalization represents a key opportunity for Burkina Faso that will be leveraged in this project. For two decades, the GoBF has been implementing telecom sector reforms which have resulted in notable improvements in the Information and Communication Technology (ICT) sector. The country has created a relatively competitive environment for telecommunication services and has been one of the leading countries in the region in terms of adopting Economic Community of West African States (ECOWAS) ICT policies. As of 2018, 86% of the households own a portable telephone, of which 97% are in urban areas and 82% in rural areas, and mobile money services have been launched since 2013. On the other hand, only 32% of the population is covered by 3G network and only 12% of households has internet access, seven percentage points lower than the average in Africa. Digital technologies and solutions are fundamental to enabling off-grid electrification. However, little data is available on the use of digitalization in the off-grid electricity sector in Burkina Faso, highlighting the need to demonstrate innovative approaches in the area that could be further replicated by other existing or planned mini-grids projects in the country. Digital is a cross-cutting theme in this project, applying across all components, as well as in its own Component 4 of the project.

Changes made to the project design

Owing to the aforementioned progress made and increase interventions (current and planned) from other donors, the project's design has evolved from the initial concept in the PIF. Table 4 highlights the changes brought on at the PPG phase through in-depth consultations with stakeholders.

Table 3: Changes made to the Project Design

Outputs with budget at Concept Note	Outputs with budget at CEO ER	Change	Justification

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
1.1. Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments	\$291,469 (TA)	1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification	\$195,351	This initial output 1.1 Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments has been moved to Output 1.6.	Lack of coordination has been decried as one of the critical bottlenecks plaguing the promotion of rural electrification. With several donors planning to intervene in Burkina Faso's electricity market, the need for proper coordination especially in order to collaborate with government in choosing the proper minigrid delivery model(s). Moreover, the initial Output 1.1. on DREI analyses will be implemented by another project, therefore it was reduced to an update of the study in the last year of implementation.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
1.2. Domestication of quality standards for solar minigrid components, and institutional capacity of national standards organizations/bureau strengthened		1.2. Formulation of rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data		The original output was replaced by a new one.	For proper sequencing, the new output was put ahead of the original one (Domestication of Quality Standards). Currently, the country does not have a rural electrification strategy at all. Therefore, it was determined as a result of stakeholders consultations to prioritize the formulation of a rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data, this will lay the foundation for selecting minigrid delivery model (s) and also support the establishment of regulatory framework conducive to private sector involvement. The Multi-Stakeholders Platform, which will be set-up under Output 1.1. will be highly involved in the implementation of Output 1.2. Therefore, Output 1.2 from the PIF is now Output 1.3

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		1.3. Domestication of quality standards for solar mini-grid components, and institutional capacity of national stakeholders involved in setting or reinforcing standards strengthened		Only sequencing /numbering was changed	During the PPG phase, it was determined that the capacities of the regulator, ARSE ANEREE (standards) and even ABER (rural electrification agency), which were all recently established need to be enhanced so they can fully play their roles in the promotion of a conducive environment for minigrids. This will facilitate the implementation of policy, legal and regulatory instruments from the Energy Law. Market players, suggested that emphasis should be put on ensuring the capacities of institutional partners are enhanced to ensure Energy Law is fully implemented from a regulatory standpoint and necessary texts are developed and followed. This Output has customized to the Burkina Faso context. Therefore, it was expanded beyond the issues of the procurement/tender processes that incorporate cost-reduction levers and innovative business models.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		1.4. Capacity building of public officials (regulator, ministries, agencies) and private sector to fully play their role (tariffs, design procurement/tender processes that incorporate cost-reduction levers and innovative business models etc.) vis-?-vis texts emanating from the Energy Law		This a new output added at the PPG. It was not in the PIF.	During the PPG phase, it was determined that the capacities of the regulator, ARSE ANEREE (standards) and even ABER (rural electrification agency), which were all recently established need to be enhanced so they can fully play their roles in the promotion of a conducive environment for minigrids. This will facilitate the implementation of policy, legal and regulatory instruments from the Energy Law. Market players, suggested that emphasis should be put on ensuring the capacities of institutional partners are enhanced to ensure Energy Law is fully implemented from a regulatory standpoint and necessary texts are developed and followed. This Output has customized to the Burkina Faso context. Therefore, the scope of this output was expanded beyond the issues of the procurement/tender processes that incorporate cost-reduction levers and innovative business models.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		1.5. Establishing / Operationalizing a certification scheme for minigrids installers building on ECREEE's Regional Certification Scheme		This is new output added at the PPG phase. It was not in the PIF.	As important quality standards, ensuring quality human resources/services is key element of the minigrid market ecosystem. Failing installations and sub-standard operations damage consumers? confidence in the technology when the issues is rather skills-related. Therefore, this output 1.5 was added to remedy the issue of trained workforce. The ECOWAS through The Center for Renewable Energy and Energy Efficiency (ECEEE) initiated a regional program in this sense which identified two training and testing centers already in Burkina Faso.
		1.6. Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments and contribute to AMP Flagship Report on Cost Reduction		Sequencing /numbering was changed	Since the initial Output 1.1. on DREI analyses will be implemented by another project, it was reduced to an update of the study in the last year of implementation.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
2.1. Pilot(s) developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids and sufficient growing demand for mini-grid systems.	(INV) \$208 027 (TA) \$ 66 569	2.1. Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids	(INV) \$677,350 (TA) \$78,385	Unchanged	<p>The revision allowed specific business model innovations / approaches to be piloted in typical settings where mini-grids are expected by the government to support rural electrification in the country.</p> <p>1. The productive use of energy (PUE) overlay pilot allows early demonstration of the benefits and significance of PUEs on the viability of mini-grids. Data from this pilot can help shape policy direction and inform capacity building more broadly.</p> <p>2. The greenfields ?Energy Hub? pilot project aims to demonstrate the value of a PUE anchor to improve the viability of mini-grid operations and test the feasibility of this approach in a typical rural electrification setting.</p>

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
<p>2.2 Capacity of winning tender bidders / new COOPELs strengthened to develop and implement innovative business models and cost-reduction levers</p>		<p>2.2 Capacity of winning tender bidders / new COOPELs and private sector actors (APER) strengthened to develop and implement innovative business models and cost-reduction levers</p>		<p>Focus has been broadened from winning tender bidders and electricity cooperatives (COOPELs) to the wider private sector including industry association</p>	<p>Since the pilot projects are designed to provide evidence base for key elements of RE minigrids in Burkina Faso, i.e. delivery models, productive uses, innovative business models, digital innovations, etc., it was suggested to not focus solely on tender bidders and new COOPELs since the AMP project is supposed to ush the envelop on new deliver models and to strengthen the private sector through an industry association. The scope for this output has been expanded to include a wide array of orivate sector actors.</p>

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		2.3. Support provided to establish and grow a national industry association for private sector developers		This output was added at the PPG stage.	The lack of strong industry voice is detrimental to private sector's growth and increased participation in the minigrid promotion. It was determined through consultation that given the high interest Burkina Faso's energy market is garnering from donors, it is important to ensure there is a strong industry representation. This association once enhanced will play a major role in key decisions regarding the minigrid market ecosystem (delivery models, rural electrification strategy, minigrid regulation, etc.)
3.1 Domestic financial sector capacity-building on business and financing models for minigrids		N/A		Unchanged	
3.2 General market intelligence study on minigrids in regions complementary to WB and AfDB investments	\$ 136,423	3.2. General market intelligence study on minigrids in regions complementary to WB and AfDB investments prepared and disseminated amongst public officials and finance community	\$206,372	Unchanged, apart from the wording	

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		3.3: Support the development and implementation of innovative financial instruments for both supply and demand side (consumers and service providers) to facilitate investment in and viability of minigrids		This output was added at the PPG phase.	Currently, the landscape for access to financing the minigrid sector is fragmented. Developers are not able to get the appropriate financial products to scale minigrids. This activity was added to support the development and implementation of innovative financial instruments for both the supply and demand sides to facilitate investment in and viability of minigrids. Also, innovative financing solutions for minigrid development are identified and implemented through the MFF (or equivalent) with supporting human and institutional strengthening.
		3.4 Feasibility study support provided to minigrid developers, creating a pipeline of investible assets		Added at PPG stage.	Minigrd developers in Burkina Faso will stand to benefit from access to market data/information in order to build bankable projects. With Burkina Faso slated to receive considerable donor funds in the next 3-5 years, AMP's will add value by ensuring a pipeline of investible projects is developed.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		3.5. Capacity building provided to minigrid developers and investors on measuring and reporting on impact indicators, building credibility in impact investment as an asset class		Added in PPG phase	

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
4.1 Lessons learned captured and disseminated at the national level	\$138,027	4.1: A Digital Strategy is developed and implemented, including linkages to and following guidance from the AMP Regional Project from the regional project.	\$331,944	Expanded to include information sharing with regional project.	Digital innovation and data-sharing are the cornerstones of the AMP's principle around promoting cost-reduction levers, productives uses and innovative business models through RE minigrids. This new output was added to ensure that important elements for pilot projects and other outputs of the project can leverage use of digital platforms for tendering and coveying learnin locally and with the regional AMP are not overlloked. This output can be transformative in nature for the whole minigrid sector. For instance, by using digital platforms for pilots, capacity of key stakeholders will be developed, which can for later be the basis for using digital platforms for sector-wide large scale tenders.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
4.2 Replication plan (including investment plan) for scaling up rural energy access developed		4.2: Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction		This is new output added following the PPG phase.	In order to reduce human error and to ensure transparent tendering processes which will ultimately increase investors' and donors' confidence in the minigrid market is key element of the values that AMP looks to add to the minigrid market in Burkina Faso. Stakeholders, especially those from the private sector put procurement/tenders as a key risks/barriers in Burkina Faso and suggested that AMP will add incremental value by addressing this issue.
4.3 Knowledge network / Community of Practice established to promote MG development / rural energy access		4.3. A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project		Unchanged except the sequencing which moved this output from 4.4. to 4.3.	Data from minigrids installed in the framework of pilots will be determinant in ensuring appropriate alterations are brought delivery models, regulations, business-models, etc. Also, the promotion of RE minigrids is supposed to lay the foundation for decrease GhG emission and other socio-economic and environmental impacts.

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
4.4 A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of MGs, including GHG emission reductions is developed and operationalized		4.4: M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation		This is not a new output, however, the scope was broadened to including activities around mid-term evaluation	Given the novel nature of the AMP whereby, learnings are central to the success of the Project, it is essential to have intermediary point where the first data can be extroplated and used to inform interventions even beyond the AMP project.
N/A		4.5. Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt		New output	In order to ensure all national AMP project can share knowledge and lessons learned in systemic way.
		4.6: Knowledge networks / Communities of Practice / industry associations strengthened to promote minigrids development		Previously output 4.3, this output was moved to 4.6 due to sequencing. The scope was slight expanded to include industry associations	
				Lessons	

Outputs with budget at Concept Note		Outputs with budget at CEO ER		Change	Justification
		4.7: Lessons learned captured and disseminated at all levels		learned was output 1.1 and focused on the national level. So not only did the sequencing change but the scope was expanded to include sharing lessons-learned at all levels	Capturing lessons-learned and ensuring the widely disseminated at all levels will support the growth of RE minigrids focusing on cost reduction, productive uses, etc.
		4.8: Replication plan (including investment plan) for scaling up rural energy access developed		This output remains the same in terms of scope, only the sequencing was changed.	Other outputs were prioritized

1. The preliminary indications of co-financing at Concept Note stage have also been updated to reflect the following confirmed commitments:

Table 4: Changes in Co-Financing From PIF to PPG Stage

Sources of Co-financing at Concept Note	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount (\$ at PIF)	Changes in Co-financing at CEO ER (amount at CEO ER)	Justification

Recipient Country Government	World Bank Group (IDA)	Loan	Investment mobilized	20,000,000	0.00	This co-financing did not materialize as WB could not commit to co-financing off-grid activities at PPG stage.
Recipient Country Government	GCF	Loan	Investment mobilized	7,453,650	0.00	Co-financing from the AfDB/GCF Yeleen project has been accounted for in the AfDB co-financing.
Recipient Country Government	GCF	Grant	Investment mobilized	19,646,350	0.00	Co-financing from the AfDB/GCF Yeleen project has been accounted for in the AfDB co-financing.
GEF Agency	UNDP	Grant	Investment mobilized	1,000,000	2,880,867	Realigning with project activities. At the PIF stage \$1,000,000 was committed by UNDP. So the co-financing amount increased by \$1,880,867.

Recipient Country Government	Burkinab? Rural Electrification Agency (ABER)	Grant and Loan	Investment mobilized	0.00	75,500,000	\$75,500,000 at CEO ER due to additional relevant activities identified. ABER as the rural electrification agency and IP will be investing public funds in rural electrification projects through tenders, support to electricity cooperatives, capacity- building, studies, etc. These are aligned with all four components of the project.
Donor Agency	African Development Bank (with EU/GCF and Others) + SEFA)		Investment mobilized	0.00	16,133,381	New commitment mobilized during PPG. Relevant parallel activities identified, including Yeelen GCF project.
Donor Agency	African Development Bank (with EU/GCF and Others)	Loan	Investment mobilized	0.00	5,960,000	New commitment mobilized during PPG . Relevant parallel activities identified, including Yeelen GCF project.

Donor Agency	Swedish Cooperation (Sida)	Grant	Investment mobilized	0,00	2,918,995	New commitment mobilized during PPG. Relevant parallel activities identified.
Donor Agency	UNCDF	In-kind	Recurrent expenditures	0.00	600,000	New commitment mobilized during PPG. Relevant parallel activities identified. In addition, UNCDF is proposed as Responsible Party for Component 3 of the project.
			Recurrent expenditures			New commitment mobilized during PPG. Relevant parallel activities identified. In addition, ECREEE is proposed as Responsible Party for Component 1 of the project.
Total Co-financing				48,000,000	104,493,243	Co-financing increased by \$56,393,243 compared to PIF stage.

Project Components, Outcomes, Outputs and Activities

The following paragraphs provide a summary of the project components, outcomes, outputs and activities

Project Component 1: Policy and Regulation (PC1)

This component seeks to address policy, regulatory and institutional barriers identified in the baseline scenario preventing private sector investments for the uptake of renewable energy minigrids in Burkina Faso. This is a key component, which will support the market with clear and transparent policies and regulations in order to create the enabling environment to build private sector confidence in the renewable energy minigrid sector. This, in turn, will allow for low-cost commercial capital to start flowing in Burkina Faso for off-grid electrification through solar PV minigrids with storage. For the private sector to invest, they require clear, transparent and long-term domestic policies and regulations, which are well-designed, implemented and enforced, thus contributing to de-risking the sector. The policy and regulatory activities undertaken under this component will address a variety of barriers to investment, from energy market risk, to digital risk, to labor risk, amongst others. Though activities under this component are mainly targeted towards public officials and institutions, the private sector and civil society will reap the benefits. Also, many of the activities will involve the private sector to ensure the industry's buy-in from the beginning which will support adoption.

Output 1.1: An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification

- ? Activity 1.1.1: Support the operationalization of the multi-stakeholder platform that includes all relevant stakeholders from government, donors, local authorities, civil society, local media, private sector, rural populations, and initiate a national dialogue to identify optimal mini-grid delivery model (s) based on the key questions such as ?government control over mini-grid assets and operation?, ?the required (and available) levels of public funding?, ?the resulting electricity retail tariffs? and ?the required regulatory framework? (see Strategy section).

- ? Activity 1.1.2: Conduct gap analysis/studies and targeted capacity building on key issues identified by the platform, such as importation of RE technologies, gender mainstreaming, e-waste management, etc. and suggestions for delivery models. Make sure that the probable consequences of any decision taken for the overarching framework are evaluated and well understood by all stakeholders. Some of the first tasks under this activity are as follow:
 - o Activity 1.1.2.1: Review import procedures and taxation/duty rules for mini-grid components. Discuss required changes with relevant ministries and authorities, in consultation with other stakeholders.

 - o Activity 1.1.2.2: Support the relevant ministries and authorities for the improvement of import procedures and reduction of import tax/duties for mini-grid components, following the official administrative procedures prevailing in the country. This includes drafting of proposals for change, calculation/assessment of macroeconomic effects, drafting and submitting the new text in the relevant law or regulation for government approval.

- o Activity 1.1.2.3: Review existing environmental impact assessment framework. Coordinate simplified procedures for Environmental Impact Assessments in mini-grids of certain categories.
 - o Activity 1.1.2.4: Develop standardized waste management and mandatory recycling procedures to be applied by operators of mini-grids falling in the categories defined under Act 2.4.1.
- ? Activity 1.1.3: Develop a "one-stop-shop" (using the results of Activity 1.1.2) for prospective mini-grid developers, including guidance on these key issues. This "one-stop-shop" will be a single online resource aggregating key information about the sector for developers and other stakeholders. It can also be a single point of reference for the announcement of tenders, other relevant information, and also a central hub for a Community of Practice.

Output 1.2: Formulation of rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data.

As a result of Output 1.1, which serves to ensure sector leadership, constructive debate and adequate data, leading to useful tools and decisions around specific delivery models, tariff, etc. a rural electrification strategy will be drafted in close coordination with other relevant actors in an inclusive manner to ensure buy-in of the delivery model selected. Considering that the country currently does not have a rural electrification strategy taking into account minigrids, ABER indicated the need to initiate the drafting of a comprehensive rural electrification strategy as early as possible in order to ensure that renewable energy minigrids with storage are appropriately incorporated in upcoming projects. The existing energy policy and regulatory framework places the emphasis on grid extension; therefore, the rural electrification plan drafted by this project will provide the GoBF with the necessary tool towards achieving its electricity access targets efficiently. Several donors such as SIDA, GIZ and the EU have indicated that this lack of appropriate strategy is a bottleneck preventing further investment in the rural electrification sector. The formulation of a rural electrification strategy/plan will draw on lessons from other successful cases from the region, with technical assistance from the regional AMP project and ECREEE's experiences in supporting countries in policy development. Specifically, the regional AMP project will ensure that the strategy draws experience from other countries with similar electrification strategies/plans such as Mali, Senegal, Nigeria as well as Tanzania and Kenya as benchmarks. SIDA's support towards this output will be financial and operational as the promotion of RE minigrids is part of its core interests in Burkina Faso. Activities towards formulating a rural electrification plan have been budgeted by Sida already, therefore, the AMP will coordinate closely with this partner. The multi-stakeholder platform will also play an important role in the process of drafting and validating this output.

Output 1.3: Domestication of quality standards for solar mini-grid components, and institutional capacity of national stakeholders involved in setting or reinforcing standards strengthened.

Quality standards are important regulatory measures that the GoBF must implement to support the private sector involved in mini-grids development. It is therefore important that the government sends a clear signal to the private sector by developing a set of standards to ensure that the equipment is reliable and adequately covered by warranties and post-sale O&M. This activity will be implemented under the aegis of ECREEE. As a Member State of ECOWAS, the GoBF is also committed to the ECOWAS Regional Renewable Energy Policy (2015-2030), which seeks to create a harmonized regulatory framework with common tax policies and standards, among others. Therefore, the quality standards of Burkina Faso should be done in relation with ECREEE and the ECOWAS Standards Harmonization Model (ECOSHAM)[1] to avoid duplication of efforts. This will ensure that the quality of the components and installations meet the expectations of end-users not only in Burkina Faso but through the ECOWAS region.

The following activities will be carried out:

- ? Activity 1.3.1: Review existing domestic standards and identification of gaps. Present results to standards organization/bureau.
- ? Activity 1.3.2: Develop new standards filling the gaps based on existing international standards in coordination with standards organization/bureau. It is important to align this activity with the regional initiatives on standards undertaken by ECREEE and WAEMU.

Output 1.4: Capacity building of public officials (regulator, ministries, agencies) and private sector to fully play their role (tariffs, design procurement/tender processes that incorporate cost-reduction levers and innovative business models etc.) vis-?-vis texts emanating from the Energy Law.

The GoBF has indicated its intention to promote renewable energy minigrids through private sector investment as evidenced by reforms undertaken or underway. Often times, even the best reforms fail to deliver the expected outcomes because of the lack of capacities of the parties in charge of executing or reinforcing the said reforms. Hence, these reforms engaged by the GoBF need to be operationalized in the most optimal manner in order to shorten the learning curve within the public (ABER, ANEREE, ARSE, ABNORM, customs, etc.) and private sector. This project will therefore support the process by conducting trainings on key thematic areas not covered by other donors such as cost-reduction levers, innovative business models, etc. Additionally, the project will share best practices and provide technical advice from neighboring countries, Eastern and Southern Africa, which have more mature mini-grid markets. This will involve working in close coordination with other development partners (AfDB, WB, Sida, the EU, AFD, etc.) supporting the GoBF develop a mini-grid regulatory framework, including tariff model, tax regime, and grid expansion risk mitigation. The following activities will be carried out:

- ? Activity 1.4.1: Draft mini-grid regulation in close coordination with the regulatory authority based on the outcomes of Output 1.2, including tariff regulation methodology, licensing procedure and licensing exemption rules, technical regulation, customer service aspects, penalties and arbitration mechanisms.
- ? Activity 1.4.2: Develop the tariff calculation tool adjusted to the country's specific requirements in cooperation with the regulatory authority.
- ? Activity 1.4.3: Support the regulatory authority in the preparation and conduction of public consultations. Adjust the regulation and tariff tool as the result of public consultations and decision of the regulatory commission.
- ? Activity 1.4.4: Develop and implement / roll-out a license application management online platform including training of relevant parties such as staff from ABER, ARSE and private sector companies.
- ? Activity 1.4.5: Conduct a diagnosis of mini-grid tender related administration processes in relevant ministries and authorities.
- ? Activity 1.4.6: Develop comprehensive training materials on mini-grid tendering concepts around the delivery model selected and organize training of trainers (ToT) on optimized mini-grid tendering procedures. This activity will address key barriers identified and build on the recommendations and results of Activity 1.4.5 (diagnosis).

Output 1.5: Operationalizing a certification scheme for installers and technicians building on ECREEE's Regional Certification Scheme.

This output will build on the existing Regional Certification Scheme (RCS) implemented by ECREEE in close collaboration with GIZ and IRENA. The overall goal of the RCS is to promote professional competency of technicians and other qualified professionals and address the quality assurance gaps that exist along the renewable energy and energy efficiency value-chain. The RCS also seeks to promote the accreditation of additional partner institutions in all ECOWAS countries to undertake the certification examination and training in the off-grid photovoltaic sector implemented by ECREEE and IRENA since 2018. In Burkina Faso, two centers of excellence, namely, 2iE and IRSAT have been accredited by ECREEE and will participate in the RCS. These centers have bought into the certification scheme. Trainings will be provided to trainers and other support provided in order to operationalize the certification scheme in Burkina Faso. The industry association will also be highly involved in this activity. In the framework of this project, the following activities will be carried out:

- ? Activity 1.5.1: Develop country specific job-task analysis and curriculum.
- ? Activity 1.5.2: Analyze existing universities, higher learning institutions and vocational training programs and conduct a gap analysis. Introduce the findings to the authorities in

charge of providing the budget to these institutes, ministry of energy and industry associations.

- ? Activity 1.5.3: Train the trainers from key academic and research institutions such as 2iE, University of Ouaga and IRSAT to administer the certification tests.
- ? Activity 1.5.4: Run a pilot phase of certification exams.

Output 1.6: Light quantitative mini-grid DREI techno-economic analysis carried in Year 4

The UNDP, in the framework of the Sida-funded Rural Electrification Project in the Liptako-Gourma region will conduct a fully-fledged DREI analysis on minigrids in 2021 as well as capacity-building activities of dedicated staff at ABER. Therefore, building on these activities, the DREI analysis will be updated to track evolutions in financing costs as well as in hardware and soft costs. New interviews in a smaller sample than in 2021 will be conducted to collect updated data on the risk environment and financing costs, and the key financial modelling inputs will be updated with the latest hardware and soft costs. The outputs will be a brief update note of 2-5 pages specifically focusing on changes in (i) the risk environment, (ii) financing costs, hard and soft costs, and LCOE. Together, the DREI analysis conducted in the scope of the Sida-funded Rural Electrification Project in the Liptako-Gourma region and the AMP Child Project will therefore act as key mechanism to reach the following objectives:

- o Identify policy and financial derisking instruments;
- o Track cost reduction;
- o Clearly communicate these results to stakeholders in the form of various national and regional reports.

At the regional level, the aggregated data from the national refreshed DREI outputs will be fed into an update note to the regional flagship AMP knowledge product (10-20 pages), which will provide an end-of-program overview of the evolution in mini-grid costs. It is not the intention here to fully update the flagship report, but to deliver a separate update note.

More importantly, from an operational perspective, it is envisioned that these national light quantitative DREI analyses will be centralized, administered and performed by the regional project. This will create efficiencies across the program (i.e. avoiding multiple small procurements). The regional project will hire a team of international consultants to update all national-level DREI analyses, with technical support from the DREI Core Team[2]. The team of consultants will be provided with access to all materials from the full-fledged quantitative DREI analyses that took place in Year 1 (or in 2021 in the case of this project in Burkina Faso). The

need for national consultants is not foreseen and the team of international consultants will liaise with national project managers as needs be.

It is expected that these updates to national and regional reports be launched at the start of Year 4, for 2 months duration, and feed into the terminal evaluation.

In line with the principles of AMP, the above activities under Component 1 set the stage for the those in other components, especially Component 2. Overall, the development of clear national delivery models will have significant impacts on the nature of the private sector-based business models planned for Component 2. Specifically, the pilot projects (Output 2.1), as well as Outputs 2.2 and 2.3 will have strong linkages with the inclusive multi-stakeholder dialogue on delivery models (Output 1.1), minigrid strategy (Output 1.2), capacity-building of stakeholders (Output 1.3) and domestication of quality standards. In particular, the inclusive multi-stakeholder dialogue will support the decision-making process on the delivery models for the pilot projects.

Project Component 2 (PC2): Business Model Innovation with Private Sector

The involvement of private sector (developers, supply chain, investors, financial intermediaries, etc.) in minigrid cost-reduction will be central to the program's approach. A range of activities will be offered to engage and support the private sector. **This component aims to demonstrate a new delivery model involving the private sector and innovative business models, especially in productive uses.** The component will center around three key outputs (2.1, 2.2 and 2.3), specifically the implementation of pilot projects focusing on productive uses as anchor load while targeting the most vulnerable populations, such as women, youth and small-scale farmers in high-impact agriculture value-chains. Demand aggregation is a form of cost reduction for minigrid developers. Therefore, it is befitting that during the PPG inception workshop and further stakeholders' consultations, all actors unanimously suggested that the pilot projects focus on productive uses and SMEs, in order to add value. Additionally, ABER, the **Executing Agency** and several stakeholders have requested that the pilot project also seeks to confirm delivery models for social infrastructure such as health and education facilities. Gender mainstreaming will be a guiding principle for the design and implementation of this component. Additionally, Outputs 2.2 of this component will focus on building the capacity of private sector actors as well as institutions such as ABER and ARSE in procurement processes. In particular, ABER and private sector companies respectively will be trained in the use of a digital platform (Output 4.2) to launch a tender process and apply to it. This Component will also have strong linkages with the AMP Regional Child Project, in particular its Component 2 which will provide access (if requested) to a variety of dedicated technical and operational support to AMP National Child Projects, as follows:

- 1) **Access to specialized expert international consultants in selected areas** (DREI, data, GIS modeling, mini-grid business models, etc.) hired, retained, contracted and paid for by the AMP regional project and made available to all participating national project staff and selected beneficiaries on as needed basis. The areas of support, listing of available firms/ICs under contract by the regional project and protocol for how the project can request and/or access such expertise (if needed/requested) will be elaborated in the first year of regional project implementation and disseminated to this project and the staff of all other participating AMP national projects. This support may range from virtual assistance to in-country missions. All requests for such assistance must be approved by the project manager of the AMP regional project management unit.
- 2) **Provision of a database of qualified international consultants and firms** disaggregated by their expertise in the four main components of the national project and other key operational areas (procurement, M&E, communications, etc.). These individuals will not be retained or contracted under the regional project but rather provided to the project for informational purposes only in an effort to assist in identifying high-quality experts and firms who may be available for contracting by national governments under their own procurement rules and modalities.
- 3) **Provision of generic ToRs for various standard activities** (mentioned above) under the four main components of the national project.
- 4) **Advisory support by the AMP regional project management unit** to staff of the project on trouble shooting (operational support, ToR reviews and problem solving) on an ad-hoc and as-needed basis. These services will be paid for the regional project and available on a first-come/first-serve bases under a protocol to be established by the regional project.

A full detailed elaboration of these offerings and the protocols attached to each service will be communicated to the project at the inception workshop of the regional project and at the inception workshop of each national project.

Output 2.1: Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids

Throughout the PPG phase, stakeholders clearly indicated that this project should focus on productive uses of energy instead of electricity for household demand, which is already a tangible market and is being addressed by many existing and upcoming projects and programs with mitigated results. This is in direct line with the baseline scenario, which shows that the increasing demand for electricity in Burkina Faso is driven in part by the need for off-grid electricity in the mining and agriculture sectors, two of the country's main economic sectors. While the mining sector is one of the largest consumers of electricity in the country, demand for large irrigation systems is also significant, with more than 100 locations identified through an assessment exercise conducted by the EU. The consistent demand for irrigation pumps makes these locations highly suitable for off-grid solar installations using innovative technologies (SustainSolar, OffgridBox, Differ Community Power, etc.) and business models (InspiraFarms, ColdHubs, JUMEME's KeyMaker Model, etc.). To date, the social (health, education,

community infrastructure, etc.) and productive use market seems to not have been concretely addressed by past programs, which have mostly focused on connecting households. It appears, that the productive use of energy (PUE) market has been given the least attention with very little baseline data available. Considered a relatively new market segment, productive use market dynamics are not yet well understood or investigated. Therefore, the pilot projects will target first and foremost the productive uses as anchor loads to ensure commercial viability and to lower cost and risk through demand aggregation. Hence demonstrating ways to address the demand and ability to pay issues. The pilots will be a combination of greenfield minigrids (pilot type #1) and productive use overlays on existing minigrids (pilot type #2), using for instance multi-functional platforms as an anchor load. All minigrids supported by the project will be 100% solar PV minigrids with batteries.

For both pilot projects, the mechanism used to ensure that the deployed mini-grids will be used for lifetime (20 years) is to introduce a private sector-led delivery model in collaboration with ABER, and to support productive uses as anchor loads to strengthen the viability and sustainability of the systems. The minigrids will be fully owned and operated by a private sector company. In addition, the selected sites were screened to make sure they are not included in existing plans for grid extension in the near future. Also, the project is introducing containerized minigrid solutions, which can be easily redeployed to other locations if need be. This is important considering the fragile and evolving security situation in Burkina Faso, even though the selected sites are currently not located in instable areas.

Further to the sustainability of the mini-grids, the tendering process that will be conducted by ABER to select private sector developers/operators for the minigrid pilots will include requirements and criteria related to the replacement of batteries and converters, which will be placed under the responsibility of the companies. These replacements will play a key role in ensuring that the minigrids remain viable and deliver a satisfactory service in the long run, therefore will need to be included in the financial modelling prepared by the companies. The project will seek to support the companies in this planning exercise, for instance by specifying in the contract with the operators/owners of the minigrids an amount to be put aside by the companies in escrow account specifically for replacing components such as batteries and converters. Similarly, companies will be asked to include a product take-back clause in their proposal to support waste management throughout the lifetime of the minigrids. The National Renewable Energy Agency (ANEREEE), one of the stakeholders involved in the project, is already working on a plan for management of e-waste, which will have to be applied to all rural electrification projects, including AMP. Also, as part of the support from Tony Blair Institute and AfDB's Yeleen Rural Electrification project to the mini-grid sector in Burkina Faso, a mechanism for the management of equipment at the end of their usage is being developed. The AMP project will collaborate with these stakeholders in addition to ABER in the scope of Output 1.1 to develop a guide on e-waste for the minigrid sector. Further details on the assessment and management of environmental risks, including waste, are included in the SESP (Annex 6 to the project document) and ESMF (Annex 10 to the project document).

A full description of the pilot projects is provided as Annex 17 to the project document.

Output 2.2 Capacity of winning tender bidders such as new COOPELs and private sector developers from industry associations strengthened to develop and implement innovative business models and cost-reduction levers

This activity will be implemented in the form of technical assistance and training for private sector companies and COOPELs so they can fully take advantage of existing innovative business models and drivers for cost-reduction. Several tenders are expected to be launched in Burkina Faso over the next three years. Also, recently tenders have been won by project developers. However, some of these tender winners from AECF, funded by Sida, and others have yet to start implementation due to lack of capacity. Through this output the AMP project will support tender winners (including the ones implementing the pilot projects described in Output 2.1) to develop and implement innovative business models and cost-reduction levers.

- ? Activity 2.2.1: The commercial capacity of mini-grid operators will be developed. Activities will include direct commercial support such as business training, revenue diversification and tariff design. Indirect commercial support activities will include operational capacity building (such as technical staff trainings) and building internal M&E capabilities with remote monitoring and data systems to track important business metrics such as site ARPU (average revenue per user).

- ? Activity 2.2.2: The landscape of complementary rural service providers will be mapped. These include providers of education, health, agricultural and other rural development services as well as commercial providers of services such as telecoms companies, health service extension organizations, rural development agencies, micro-finance providers, private education providers and internet service providers. Links will be forged between minigrid operators and third-party service providers that could extend their services into newly electrified communities and integrative business models developed.

- ? Activity 2.2.3: Business models that incorporate potential partnerships with complementary anchor loads such as telecom towers, multi-functional platforms, etc. will be assessed and developed.

Output 2.3 Support provided to establish and grow a national industry association for private sector developers

The current association, Renewable Energy Professionals Association (APER), established in the framework of the ECOWAS Entrepreneurship Support Facility will be strengthened to play a more robust role for the industry. To this end, it is important to leverage and build links with existing industry associations such as Alliance for Rural Electrification (ARE) and African Minigrid

Association (AMDA) that can both offer assistance and guidance about establishing and growing successful associations. ARE, which, as recently established a West African office hosted by the AfDB, will be key partner for supporting the minigrad association due to proximity and shared language (French). Additionally, AMDA will be consulted for its specific focus on minigrads and its experience on setting-up and growing a minigrad association. The following activities will take place:

- ? Activity 2.3.1: Research will be done to collate all of the relevant private sector players in-country that might be possible association members.
- ? Activity. 2.3.2: Champions will be identified in government to support the chapter and provide a direct liaison to the government.
- ? Activity 2.3.3: Key Ministries will be contacted to ensure any support is forthcoming and the necessary parties are made aware of any plans.
- ? Activity 2.3.4: Notices will be placed in national media to ensure wide coverage of information pertaining to the opportunities for the private sector and the establishment of an industry association.
- ? Activity 2.3.5: Meetings will be convened with interested parties and a draft association governance structure will be put into place. This work can be supported by AMDA and collaboration with ECREEE.

Project Component 3 (PC3): Scaled-up financing.

Access to low-cost, commercial capital (equity and debt), ideally in local currency, is key to reducing the cost of minigrads, and ensuring the long-term commercial sustainability of minigrad markets. In markets which are being supported by donor partners, concessional finance and/or capital subsidies and results-based financing can provide additional cost-reduction. The project will establish partnerships with development banks and commercial financial institutions (local banks, microfinance institutions, etc.), and will support the development of innovative cost-efficient financial mechanisms that lead to minigrad cost-reduction thus bringing minigrad markets to maturity. Access to finance for both the supply and demand segment is important to promoting the uptake of renewable energy minigrads. Several initiatives aiming to support access to finance for energy service companies have been implemented in Burkina Faso. Learnings from these projects indicated that banks are looking to share the investment risks and that consumer finance is a key market driver that needs further innovation. The full spectrum of this barrier is not addressed in the existing or upcoming projects in the mini-grid sector.

Output 3.1: Domestic financial sector capacity-building on business and financing models for minigrids

Much like other nascent markets, local financial institutions in Burkina Faso are unfamiliar with the off-grid solar sector and therefore, have a limited understanding / experience with lending to off-grid solar companies due to real or perceived risks. During the off-grid market assessment conducted in the scope of the PPG stage, many of the FIs pointed to a lack of expertise in assessing risks and in structuring/developing customized products for the off-grid solar sector. While programs such as SUNREF have supported participating FIs, there remains a significant gap in overall local capacity. Therefore, FIs would benefit greatly from technical assistance and capacity-building trainings through this output to facilitate lending to off-grid solar companies. This output will build on the results of the workshop on Innovative Financing, that UNDP Country Office in Burkina Faso plans to organize in 2021 (self-funded). The ensuing activities will be informed by the outcomes of this workshop.

- ? Activity 3.1.1: Local financial institutions will be identified and assessed to determine their capacity and appetite for lending to off-grid solar companies.
- ? Activity 3.1.2: Workshops, dialogues and conferences will be conducted with representatives from the leading financial institutions to **create awareness of the opportunities that exist with lending to the mini-grid industry**. The same will be organized for investors on project assessment and financial structuring. In both cases various examples of business model and financing mechanism best practices will be presented. Innovative decision-making tools such as Nithio's^[3] artificial intelligence-driven lending platform will be showcased to the market ecosystem to support capital flow into the minigrid market.
- ? Activity 3.1.3: This activity will build on the workshops under Activity 3.1.2 organized for minigrid actors and will develop a framework for better collaboration between financial institutions, national government agencies and international donors towards developing and scaling up hybrid and innovative schemes focused on **unlocking finance and reducing the costs of capital and risks**. Examples might include donor programs creating first loss pools or currency hedging facilities.

Output 3.2: General market intelligence study on minigrids in regions complementary to WB and AfDB investments

This output will provide key information to market actors in order to support an increased engagement of the private sector, foster innovation in technology and business model by reducing perceived financial / investment risks, which results from lack of market information. Terms of

references will be developed at the onset of the project to define the scope of this study, which will include among other things:

- ? Conduct assessments of the current state of electricity access and the enabling market environment, including the review of trade conditions for renewable energy equipment;
- ? Describe and quantify demand and supply for minigrids and standalone off-grid solar systems for households, private enterprises, productive value-chains (agriculture and water) and public facilities such as health centers and schools;
- ? Assess the level, capability and willingness of existing financial institutions to provide financing to private off-grid solar companies as per Activity 3.1.1;
- ? Using tools such as Nithio's Consumer Credit Intelligence combining rich customer insights with scalable, structured institutional debt financing.
- ? Based on the above three tasks, mechanisms on how to incentivize the private sector and financial institutions to enter or expand off-grid solar will be recommended. Suggestions on how to strengthen the enabling market environment towards an efficient and mature solar minigrid market will be expected.

? Activity 3.2.1: Prepare a market readiness report in an inclusive and cross-sectorial approach ensuring the involvement of agencies in charge of energy and rural electrification as well as other relevant actors, such as rural/community development. This will actually, complement the said market assessment done in 2019 by ECREEE in the framework of ROGEP, which focused mainly on solar home systems (SHS) and standalone systems. The report will quantify the size of the market for minigrids as well as provide comparative assessment of the Burkina Faso market with similar ones in terms of tools and policies for an enabling environment. This report will serve to showcase the investment and business opportunity in the minigrid sector, especially for FIs, so as to garner their interest. This output will generate a comprehensive market intelligence report including key information at macro, meso and micro level with an in-depth analysis of risks and opportunities.

? Activity 3.2.2: Prepare a report summarizing all findings from the GIS analysis and site identification exercise to quantify the size of the mini-grid pipeline. Emphasis will be placed on their suitability and risk as investible assets. This will build on Activity 3.2.1 and geo-spatial assessment to be done under the Liptako-Gourma Minigrid Project.

? Activity 3.2.3: Findings of the general market intelligence study will be disseminated widely via multi-stakeholder dialogues through the platform established in Output 1.1 (one-stop website), workshops and conferences under Component 4. These

will be organized for the domestic investor community as well as for the international ones in relevant events.

Output 3.3: Design support, including development of operational guidance, provided for Minigrid Funding Facility (MFF, or equivalent financial mechanism) under rural electrification agencies/funds

This activity will support the development and implementation of innovative financial instruments for both the supply and demand sides to facilitate investment in and viability of minigrids. Also, innovative financing solutions for minigrid development are identified and implemented through the MFF (or equivalent) with supporting human and institutional strengthening.

- ? Activity 3.3.1: A mapping exercise will be undertaken to identify and characterize all existing minigrid funding and support programs underway and planned nationally. This gap analysis will be undertaken to identify the opportunities and challenges associated with different funding mechanisms.
- ? Activity 3.3.2: Local and international private sector players will be engaged to determine what they see to be the key financial barriers. AMDA and any other organization with locally relevant private sector knowledge will be interviewed towards the same end.
- ? Activity 3.3.3: A set of possible financing mechanisms will be proposed, for example direct capital subsidies for the purchase of productive use equipment or a usage subsidy to reduce the running costs of productive users of minigrid services. These will be dependent on the delivery model operating or planned in the country in question. An analysis of any legal implications of various funding models will be undertaken.
- ? Activity 3.3.4: Government stakeholders including any rural electrification agencies will be engaged to ascertain the appetite for the different funding mechanisms proposed. A report summarizing this as well as the capacity of the relevant agencies to manage a finance mechanism will be prepared. Champions will be identified in relevant institutions. These will be key contacts for the development of any centrally administered funding program;
- ? Activity 3.3.5: The national data platform for minigrids will be launched with the responsible agency[4]. This would provide an M&E platform for general insight into the status of the sector as well as being a useful foundation for any local, government to run a Results Based Finance scheme.
- ? Activity 3.3.6: Trainings will be provided to rural electrification staff on the launch and management of a Minigrid Funding Facility.

- ? Activity 3.3.7: Opportunities and connections will be identified with domestic and international organizations that might provide access to innovative, **non-standard finance sources**. Capacity building will take place to create systematic linkages with these sources of finance if appropriate.
- ? Activity 3.3.8: The potential for national and regional financial aggregation of minigrid assets will be explored.

Output 3.4: Feasibility study support provided to minigrid developers, creating a pipeline of investible assets

- ? Activity 3.4.1: Depending on COVID-19 restrictions, online and in-person workshops and trainings will be provided to developers to enhance their capacities on the best ways to carry out meaningful and accurate feasibility studies. Introductions will be made to the various tools available including survey tools, GIS mapping and site selection techniques, business plan development and financial modeling using the appropriate online platforms. The key outcomes of these trainings will include:
 - ? **Right-sizing mini-grids:** Technical over-design of mini-grids is a major stumbling block for financially viable mini-grids. Correct demand assessment is key to ensuring the developer is not overly optimistic or cautious, which in both cases seriously impact the financial viability of the minigrid.
 - ? **Business plan writing:** A winning business plan has two key elements, long-term financial projections and an accurate assessment of risks and mitigation activities. These are fundamentally important for creating an investible asset.
- ? Activity 3.4.2: Surveys are a key tool to creating more accurate and meaningful feasibility studies. Developers will be assisted with survey design in the following ways:

? The design of questions to elicit responses that can lead to the most accurate assessment of potential demand for minigrid services;

? Village level observation and surveying points. For example, counting the number of fossil fuel-based generators being used in the village. This provides a useful proxy for offsetable load, baseline and projected energy demand, willingness and ability to pay for energy services and an indication of existing productive uses for energy;

? How to design survey processes to avoid biases associated with gender, ethnicity or any other common biases.

From these survey results, developers will be assisted with assessing the potential for various minigrid sites according to their specific characteristics and business model profiles.

- ? Activity 3.4.3: Developers will be supported with access to GIS mapping results. For example, tools such as [Village Data Analytics](#) and [Fraym](#) can be used to identify and characterize minigrid sites across the whole country or targeted areas of interest. These sites will then, be ranked according to their suitability for minigrids.

- ? Activity 3.4.4: Developers will be made aware of and, if necessary, supported to upload any site data to ECOWREX and other platforms such as the [Odyssey online portal](#). One of the functions of these platforms is to provide investors with a pipeline of investable assets.
- ? Activity 3.4.5: Materials will be prepared, and events organized to build awareness of the investment potential of mini-grids in the country. For instance, in collaboration with ECREEE an investment roundtable will be organized either as standalone event or in the framework of the ECOWAS Sustainable Energy Forum (ESEF). Lists of suitable investors and funding agencies will be put together and provided to the industry association operationalized in Output 2.3.
- ? Activity 3.4.6: A process for standardizing potential mini-grid assets will be developed. This will include quality standards as per Output 1.6 on domestication of the quality standards as well as data reporting protocols linked to the ECOWAS Observatory (ECOWREX).
- ? Activity 3.4.7: An aggregation online platform of suitable mini-grid projects will be developed to create an access point for the pipeline of investable assets. Also, these sites will be uploaded to the Burkina Faso page / country profile on [ECOWREX](#).

Output 3.5: Capacity building provided to minigrid developers and investors on measuring and reporting on impact indicators, building credibility in impact investment as an asset class

- ? Activity 3.5.1: Developers will be made aware, via workshops, dialogues and webinars of the availability of remote monitoring hardware, smart meters and software packages available (for example [Ferntech](#), [New Sun Road](#) and [AMMP](#)) that unlock access to near real time data and allow sites to report accurately on impact indicators.
- ? Activity 3.5.2: An assessment of existing minigrid specific monitoring and reporting frameworks (e.g. [AMDA Data Benchmarking Report](#)) will be undertaken in an effort to determine which are suitable and which impact indicators would be most suitable for the national sector. An example is the NREL inspired [Quality Assurance Framework](#) developed for SEFA.
- ? Activity 3.5.3: A comprehensive framework will be developed for measuring the Sustainable Development Goal impacts of investments into the minigrid sector. This will be made available to the relevant investor community and the minigrid developers.

Project Component 4: Digital, Knowledge Management and Monitoring and Evaluation (PC4)

The project will align with the AMP Regional Project to foster knowledge sharing, learning, and synthesis of experiences in a multi-directional manner? i.e. flowing from the AMP Regional Child Project to the AMP Child Project in Burkina Faso, and vice versa, and between the Burkina Faso Project and other national child projects within the Program. The AMP Regional Child Project will connect countries to knowledge, resources and networks of best practice and will support the rapid deployment of expertise, solutions and tools to support on-the-ground implementation. The main role of regional project is to make best practices in regulations and policies, innovative and inclusive business models, digitalization and financing available to all AMP beneficiary countries.

Specifically, the Regional Child Project will support the implementation of the AMP Child Project in Burkina Faso as follows:

- ? Knowledge Tools.
 - o Knowledge tools and good practices around minigrid cost-reduction in a variety of regulatory environments, and research and development tools, such as policy packages, template tender documents, and guidelines on productive use program designs will be made available. The toolkits will support both public and private sector (e.g. minigrid developers) and the overall minigrid market
 - o Harmonized approach for implementing UNDP's minigrid DREI analyses in Burkina Faso.
 - o Providing a standardized methodology for carrying out market intelligence
- ? Tailored technical and operational assistance to national child project implementation
 - o Providing tailored, hands-on, technical and operational assistance to support national project implementation activities, both at the design and implementation stages. Readily-available experts at the regional level will be rapidly-deployable for either short-term or longer-term embedded support to [country]. The regional project will help scope the technical assistance and will suggest experts. The regional project will support Burkina Faso with key decisions and technical reviews at National Project milestones and provide actionable, strategic recommendations to National Projects to increase adoption of minigrid cost-reduction opportunities and innovative business models
- ? Communities of Practice
 - o Thematic working groups (policies, private sector, financing) will be organized and communities of practice (CoP) will be established at the regional level targeting specific stakeholder groups and country needs.

- o A set of technical cohorts will be established to address major challenges identified by the CoP members.
- ? Digital tools and solutions for minigrid cost-reduction.
- o The regional project will promote and facilitate the use of digital tools and solutions across national child projects and other national stakeholders ? with the objective of knowledge-building on the potential for use of digital tools and solutions, including leveraging minigrid projects? data to improve the commercial viability of renewable energy minigrids.
 - o The Program will support the development of a common monitoring and indicator framework (SDG impacts and GHG emission reductions) for all child projects, and country lessons learned will be used for sharing through the Regional CoPs and bilaterally between countries.

The results of Component 4 in the Burkina Faso project will feed the AMP Regional Project for onward sharing with other participating countries. There will also be opportunities for these results to be shared directly with other countries through corresponding knowledge management activities built into each child project. This will serve better integration between national projects. Integration will also be enhanced through the programmatic approach proposed for national project design around three core thematic areas mentioned above. **More information on the timeline of knowledge management activities can be found in Annex 4 to the project document.**

Output 4.1: A Digital Strategy is developed and implemented, including linkages to and following guidance from the AMP Regional Project

? Activity 4.1.1: Develop and implement a **project digital strategy**

Leveraging digital tools/innovation for institutional stakeholders such as ABER and ANEREE, private sector minigrid developers and operators, was identified as one of the key enablers for scaling-up commercial investment in renewable energy minigrids, during stakeholders consultations. Being a nascent market, local developers and COOPELs have not been able to take full advantage of digital tools such as smart meters, remote monitoring, etc. This activity will remedy this situation by supporting the design of a digital strategy.

Output 4.2: Minigrids digital platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction

To reduce human error and to promote crowding in more investment in the Burkina Faso market through transparent and designed tendering processes, a data platform will be procured by the project in its first semester of implementation to serve different purposes including:

Specifically, for minigrid investment pilots under Component 2:

- ? Running digital tenders by which minigrid developers will be selected as beneficiaries to receive support under the project.
- ? Managing all technical and financial data related to minigrid sites.
- ? Providing ongoing data gathering and M&E on the minigrid pilots. Part of this data will also be sent through the data management platform to the regional project for the overall monitoring of AMP.
- ? Providing minigrid developers - selected to implement minigrid pilots with support from the project - access to a set of best-in-industry digital tools for analyzing minigrids (e.g. demand forecasting, system optimization, distribution network design, detailed financial modeling at the site and portfolio level).
- ? Supporting capacity building for minigrid developers and government stakeholders around the use of the Minigrids digital platform.

The implementation of this data management platform will support the IP in running and managing minigrid tenders and then systematically monitoring minigrid pilots and collected data from pilots. This, in turn, is expected to result in improved project design and system optimization, reduced uncertainties and increased transparency in minigrid tenders attracting more bidders and competition and lowering transaction costs associated with bidding.

For the project and minigrid sector more generally:

- ? Providing a centralized database for all distributed energy projects/programs at the national level.
- ? Collecting, managing and aggregating data from all minigrid sites.
- ? Running digitized tenders and administering grants (other than for Component 2 pilots).
- ? Verifying the performance of minigrid systems for improved sector oversight.
- ? Performing real-time monitoring and evaluation of electrification projects/programs.
- ? Applying advanced analytics of minigrid portfolios to generate critical insights to advance the sector.

Similarly, as part of the roll-out of the data platform, minigrid developers (as well as key government and other stakeholders) will receive capacity-building and in-depth training to use analytical tools and data management technologies.

- ? Activity 4.2.1: Develop Terms of Reference (TORs) for procuring a Minigrids digital platform
- ? Activity 4.2.2: Procure the Minigrids digital platform. All national child projects will procure a country-level Minigrids digital platform in their first semester of implementation.

Output 4.3: A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions^[5], is adopted and operationalized based on standardized guidance from the regional project^[6]

Working with the GGGI and other key stakeholders involved in Burkina Faso's NDC process, the project will look to establish an MRV system. This quality assurance framework will be widely disseminated to minigrid operators through the Multi-Stakeholders Platform and industry associations.

- ? Activity 4.3.1: Provide inputs and feedback to the regional project on the development of a **standardized Quality Assurance and Monitoring Framework (QAF)**. A standardized Quality Assurance and Monitoring Framework (QAF) for application in all minigrid pilots supported under AMP national projects will be developed in year 1 of the regional project and disseminated to all national project staff. It is expected that the national project staff will provide both inputs and feedbacks on the development of this framework as well as on how best to operationalize the committing to its adoption by the minigrid operators receiving support from the national project.
- ? Activity 4.3.2: Adopt and utilize the standardized Quality Assurance and Monitoring Framework (QAF). The adoption and utilization of this framework and associated data reporting protocols will be a mandatory requirement for all minigrid pilots supported under AMP (e.g. applicable to all national projects) and each minigrid operator/sponsor who is the beneficiary of investment subsidies and technical support by the project will be required to formally commit to using the QAF as a condition of assistance. The adoption of the QAF by all minigrid operators/sponsors supported under AMP national projects will ensure that the regional project can aggregate common data metrics and track a standardized set of key

performance indicators across all minigrad pilots supported by AMP across all partner countries and report this data to the donor on a programmatic level.

Output 4.4: M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation

- ? Activity 4.4.1: Conduct an inception workshop and prepare an inception report. A project inception workshop will be held to officially launch the project and, among other aims, familiarize key stakeholders with the detailed project strategy, roles and responsibilities of the project team. The national inception workshop will be carried at the beginning of project implementation (within 60 days of CEO endorsement of this project). The workshop will be organized by the PMU with support from the IP. An inception report will be prepared by the PMU and submitted to UNDP within 90 days of CEO endorsement of this project.

- ? Activity 4.4.2: Ongoing project monitoring. Data on the results framework indicators will be systematically collected and analyzed to provide decision-makers, managers, and stakeholders with information on progress in the achievement of agreed objectives and the use of allocated resources, as set out in the Monitoring and Evaluation Plan. Continuous monitoring will provide management and the main stakeholders with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. It will provide regular feedback on performance of the ongoing activities taking into account the external environment. Information from systematic monitoring will serve as a critical input to ongoing management decisions (adaptive management), evaluation, and learning. In addition and similarly to all other AMP national child projects, **this project will comply with the AMP regional child project's M&E protocols and provide timely reporting data to the regional project.**

The GEF Core indicators included in the UNDP Project Document (Annex 15) will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Also, the indicators found in the Results Framework will be monitored as per the Monitoring Plan in Annex 5 and the M&E Plan and Budget in Section VI of the project document.

This project is accompanied by various plans including Stakeholder Engagement Plan (Annex 9), mitigation plan for project risks (Risk Register in Annex 7), and Gender Action Plan (Annex 11). These plans will be reviewed according to the monitoring and evaluation requirements. According to the project's social and environmental risk rating,

there is a need to carry out continuous monitoring of the social and environmental safeguards as proposed in the Environmental Social Management Framework (ESMF) and other SES frameworks/plans (Annex 10). The ESMP that will emanate from the ESMF will also be monitored under this activity. Data collected by monitoring GEF Core indicators, Results Framework indicators, project plans and social and environmental safeguards will be used to prepare the PIR to report to the GEF.

? Activity 4.4.3: Mid-Term Review

An independent mid-term review (MTR) will take place at the half-way mark of project implementation and will be conducted according to guidance, rules and procedures for such evaluations established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects. The MTR will be made widely available to all project stakeholders in the relevant language.

? Activity 4.4.4: Terminal Evaluation

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The project's terminal GEF PIR along with the TE report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lessons learned and opportunities for replicating and scaling up.

Output 4.5: Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt

? Activity 4.5.1: Participate in AMP Communities of Practice (CoP)

One of the primary ways national child project staff will interface with the regional project is via the "Communities of Practice" (CoPs) and associated activities/platforms. While it is expected that many of the activities under the Regional Project Component 3 will be undertaken virtually (via internet-based platforms, webinars or digital platforms) it is also expected that the CoPs will include actual in-person workshops, meetings or training events.

? Activity 4.5.2: Sharing of research and lessons learned with the regional child project

Research and lessons learned will be systematically shared with the regional project based on guidelines that will be defined by the regional project and shared at the project's Inception Workshop. Capacity building will be provided to the Project Management Unit to compile lessons learned and share knowledge effectively.

- ? Activity 4.5.3: Collaborate with the regional project on an 'Insight Brief'. Every national child project is expected (in the course of the four-year implementation cycle) to collaborate with regional project staff on the development of at least one 'insight brief' capturing (in an accessible format) selected key highlights from a successful national project activity. The 'insight brief' can cover any activity of the project and take the form of a written brief or video brief. The regional project has budgeted resources for the production of 'insight briefs' under Component 1 Knowledge Tools, but the success of regional staff in producing insight briefs highlighting national project activities will be dependent on content and data provided by the national project teams and stakeholders. In order to facilitate such collaboration each national project is required to hire a consultant or local firm to gather data and audio-visual content (video footage, photos, etc.) on the subject for the 'insight brief'. The information and data collected at the national level will be provided to the regional project staff who will utilize this content and produce an 'insight brief' according to a standardized communications format for all AMP knowledge products for external audiences. The 'insight brief' will be produced in both the local/national language of the relevant national project as well as English for dissemination by the regional project to regional stakeholders and publishing on the AMP website.

Output 4.6: Knowledge networks / Communities of Practice / industry associations strengthened to promote minigrids development

- ? Activity 4.6.1: Establish a **national Community of Practice**

Fostering and facilitating knowledge sharing around minigrids development and rural energy access (private and public sectors, government, technical and financial partners) in Burkina Faso, is important to the development and sustainability of a minigrid sector. Therefore, this output will support the creation of a Community of Practice. Currently, in Burkina Faso there are three industry associations which have overlapping themes such as renewable energy, energy efficiency and electrification. However, these associations do not have a platform for convening, interfacing and exchanging learning. Therefore, the Community of Practice will be linked-up with other knowledge networks at various levels, and linkages will also be established with the national multi-stakeholders coordination platform strengthened as part of Output 1.1. Other groups such as AMDA, ARE, GOGLA, IRENA, ECREEE, will be made aware of the existence of the CoP for mutually beneficial collaboration. This Community of Practice will implement events such as B2B events, hackathons, webinars, etc. The community will meet 3 times per year and on-demand.

Output 4.7: Lessons learned captured and disseminated at all levels

- ? Activity 4.7.1: Support collection and dissemination of lessons-learned through various media such as workshop, conferences, communication campaigns, etc.

Output 4.8: Replication plan (including investment plan) for scaling up rural energy access developed

- ? Activity 4.8.1: Replication plan for scaling-up investment in minigrids. A plan for scaling up minigrid investments in each participating country will be developed based on data gathered and lessons learned from implementation of project activities across all AMP countries and from GEF-funded minigrid projects worldwide, knowledge shared by the regional project with the national projects, and insights gained from participating in AMP Communities of practice. The Program's comprehensive approach to reduce financing, hardware and soft costs will create the enabling environment to attract public and private investments. This coupled with sound knowledge management underpinned by a robust theory of change is expected to catalyze markets.
- ? Activity 4.8.2: Market surveys. More detailed market surveys will be carried out in each participating country to assess scaling-up and replication impact potential.

Incremental reasoning

The program has a clear incremental cost reasoning, building on the baseline analysis and program's area of focus and niche. The baseline analysis, as set out in earlier section, has identified that generation costs for renewable energy minigrids in developing countries are not competitive with fossil-based alternatives. The key drivers behind this are identified. It is the case that generation costs are falling, based on a number of baseline trends, but there is a need to further accelerate this. The program has a focus on minigrid cost-reduction ? across hardware costs, soft costs and financing costs ? and innovative business models for minigrids. With this clear focus, the program has a specific niche, being complementary to existing activities. In this way, the program has the aim of promoting more efficient and effective use of existing development resources and programs. In short, the program's alternative scenario will result in additional falls in generation costs, making renewable energy minigrids more competitive, and spurring more investment, GHG emission reductions, and electrification.

Moreover, the strategy of this project will support the GoBF's COVID-19 response and recovery by building the resilience of the vulnerable populations and health facilities through provision of sustainable energy and income generating activities under Output 2.1 (pilot projects). Specifically, the pilot projects will target the water and agriculture sectors as demanded by Burkina Faso's national stakeholders during the PPG phase, which called for showcasing water-energy and food nexus in order to promote socio-economic growth, increase private sector engagement and reduce poverty in rural areas.

Global environmental benefits

-

Direct and indirect emission reductions expected from the project are about 14,383 and 747,000 tons of CO₂e respectively. The emission reductions will emanate from pilot project investments (Output 2.1) and indirect emission mitigation, from creating a general enabled investment environment, and subsequent investment flows. The methodology for the contributions is calculated as follows:

? Direct emission mitigation from country projects are the cumulative CO₂ emissions saved from the baseline, which is assumed to be standalone diesel generators in all countries. The minigrid capacity, capacity factor and availability are based on RMI's fieldwork in Africa. The number of minigrids is calculated assuming the use of GEF investments as a portion of grant financing towards minigrid capital expenditures. The direct emissions reduction assumes a 20-year technology lifetime.

? Indirect emission mitigation is calculated using a top-down approach, on the basis that the project contributes to an enabled environment which subsequently attracts minigrid investment. A time frame of a 4-year national child project, with a further 10-year post-project period is assumed. The methodology further assumes that minigrids will electrify either 33%, 20% or 15% of the current unelectrified population in the particular country, with a 20-year technology lifetime for minigrids. The selection of these three tiers is based on several criteria, including (1) current levels of grid coverage; (2) recent and ongoing initiatives for grid extension; (3) geographical size of countries; and (4) spread of off-grid communities in terms of population density. Thereafter the methodology applies a causality factor varying between 20% and 80%, chosen based on the state of the minigrid market development and ongoing baseline initiatives in each country.

Innovativeness, sustainability and potential for scaling up

1. Innovativeness: The project is innovative in many ways. The project's primary innovation is its extensive focus on cost-reduction and business model innovation to reduce minigrids' cost, with the overall aim to increase the affordability of renewable electricity to off-grid consumers. In addition, the project will operationalize innovative business models centered on productive energy uses, providing

economic opportunities in the form of income-generating activities for local communities. The combined effects of decreasing electricity costs and improved economic conditions will be the increased affordability and capacity to pay for renewable electricity by end users. In a de-risked investment environment, the increasing demand driven by low cost of electricity will catalyze further investments in renewable minigrids thereby creating a virtuous circle for scaling up investments and contributing to higher levels of rural electrification. Moreover, the project is innovative in the sense that below elements are integral parts of its design and implementation:

1. Participatory approach
2. Support from AMP regional project and experts
3. Market-based interventions
4. Supporting multi-stakeholder dialogue
5. Gender mainstreaming

-

2. Sustainability: Long-term sustainability is at the crux of the project and is seen across the project's activities and outputs. The active participation of the private sector to establish viable business models in the minigrid sector will ensure that activities continue after the end of the project. The pilot projects are designed using a market-based approach whereby the financial and technical assistance from the GEF project contributes to reducing the cost and risks to the private sector. However, the pilot projects are implemented on a commercial basis so they can be scaled-up. Therefore, the hands-on capacity building and pilot demonstrations are key levers contributing to sustainability.

At the institutional level, the private sector association APER and the multi-stakeholders' platform are both expected to survive the project because of their relevance. Moreover, the project is aligned with key national development priorities, thus benefiting from a strong political support as evidenced by ABER and the Ministry of Energy. This commitment to the project due to its relevance to national priority needs is confirmed by the excitement, involvement and expectations of stakeholders at the local level (private companies, women groups, local authorities, etc.). Component 1 will result in structural changes, which will support more sustainable private sector-led business models demonstrated as part of Components 2 (pilot project and private sector engagement) and supported by Component 3 (access to innovative finance). Component 4 (knowledge management and M&E) will allow to monitor closely the project results and derive lessons learnt as well as knowledge products that will benefit the sector long after the project closure. The fact that the pilot projects will be private sector-led and economically viable is the epitome for sustainability.

3. Potential for scaling up: The project holds tremendous potential for scaling-up because as a matter of priority the GoBF has indicated its intention and commitment towards drastically reducing

the electricity access gap by 2030 with an interim target set for 2025. Based on consultations during the PPG phase and as exemplified by the co-financing raised for this project, several actors, such as Sida, EU, GGGI, UNDCF indicated their interests in supporting the project, in particular since the pilot projects will demonstrate new and innovative technologies and business models. This will ensure that the minigrid market ecosystem is sufficiently enhanced for increased private sector investment. A replication plan including strategies for scaling-up investments in minigrids will be developed with the help of this project through **Output 4.8**. This replication plan will be based on lessons learned across all country projects and from GEF-funded minigrid projects worldwide. The scaling-up potential is very high - as the baseline electrification rates in rural areas are very low and the project is the first of its kind in terms of its focus on cost reduction for solar PV minigrids with storage and de-risking investment using UNDP's DREI methodology. The project's comprehensive approach to reduce financing, hardware and soft costs will create the enabling environment to attract public and private investments. This approach coupled with sound knowledge management underpinned by a robust theory of change is expected to catalyze markets given that several donors are planning to support rural electrification efforts in Burkina Faso over the next few years. This project has therefore a high potential of being scaled-up and replicated. All knowledge products from the national and regional pilot projects such as information tools, guides, plans, etc. will be digitalized and shared with the appropriate stakeholders, ministry, donors, private sector, etc. Project Component 4 Digital, Knowledge Management and Monitoring and Evaluation products which are crucial drivers for its scalability, sustainability and replicability. The project scaling potential will more particularly be achieved through the below:

- ? Vertical scaling-up consists of policy, political, legal, regulatory, budgetary and approach changes needed to institutionalize all minigrid and private sector involvement achieved by the project at the national or sub-national level. As such, Component 1 of the project aims to ensure appropriate policies and regulations are in place that address policy, institutional, regulatory and technical barriers to facilitate investment in solar PV-battery minigrids. The national multi-stakeholders platform will facilitate synergies and common action through policy dialogue, a cross-sectoral approach in addition to offering capacity building on key thematic areas in the solar minigrid market value-chain. Moreover, the outputs resulting from the project, such as conducting minigrid DREI techno-economic analyses; capacity building of regulator and other actors; elaborating a minigrid strategy and establishing a certification scheme will lay foundation for an increase investment in the minigrid sector. Dissemination and advocacy of the aforementioned changes will thus be ensured and will provide the necessary scale-up effect. Policy interventions leading to the creation of the multi-stakeholders platform, the domestication of standards and the capacity-building of the institutional actors will ensure the project can easily scale-up.

- ? Horizontal scale-up / replication? is cultivated especially through the support to innovative and viable business models and pilot projects focusing on high-impact agricultural value-chains. With large-scale capacity building, public awareness campaigns and outreach foreseen under this project the expansion and replication of demonstrated business models and pilot projects is certain. The awareness raising, trainings, study tours along with catalyzing the role of the private sector through successful pilot and other intervention around innovative

financing, will facilitate the replication of the innovative business models and pilot projects to other geographical areas of Burkina Faso and inspire other donors to replicate the project even beyond Burkina Faso.

- ? Diversification in the scaling-up potential is also sought by the project. Continuous improvement and further innovations will be added intrinsically through the demonstration projects and business models. With the rapid technological and business model innovation currently happening in the minigrid sector, the project offers the opportunity to introduce various proven technologies and business models.

[1] ECOSHAM refers to the Standard Harmonization of the ECOWAS region. It includes a model and procedures for harmonization of Standards, and conformity assessment procedures and Measures in order to reduce Technical Barriers to Trade.

[file:///C:/Users/aadebiyi/Downloads/ecowas_ecosham_engl_0%20\(2\).pdf](file:///C:/Users/aadebiyi/Downloads/ecowas_ecosham_engl_0%20(2).pdf)

[2] See footnote 1

[3] <https://www.nithio.com/>

[4] This could, for example be a local adaptation of the Quality Assurance Framework prepared by SEFA (Sustainable Energy Fund for Africa) for Nigeria, Togo and Guinea that is hosted on the online Odyssey platform.

[5] At the AMP regional project, 10% of the indirect GHG impacts calculated at the Burkina Faso project level are allocated to the regional child project, in line with the apportioning of the overall program budget. This reflects the benefits of national projects accessing the regional project's support. To avoid double counting, this 10% is removed from the indirect totals for the Burkina Faso project.

[6] The national project will not need to develop their own QAF; it will be developed by the regional project and adopted and used by national projects. They will simply need to adopt it and ensure that it is adopted and utilized by all minigrids operators receiving support.

[1] World Bank online country data page: <https://data.worldbank.org/country/BF>

[2] UNDP Human Development Report 2020: http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BFA.pdf

[3] <https://www.undp.org/content/undp/en/home/coronavirus/socio-economic-impact-of-covid-19.html>

[4] Energy sector vision (MOE, July 2018)

[5] Off-Grid Solar Market Assessment Burkina Faso Report? in the framework of the Regional Offgrid Electrification Project (ROGEP)

http://www.ecreee.org/sites/default/files/ecreee_rogep_regional_report.pdf

[6] Burkina Faso launches Sahel region's largest solar power plant

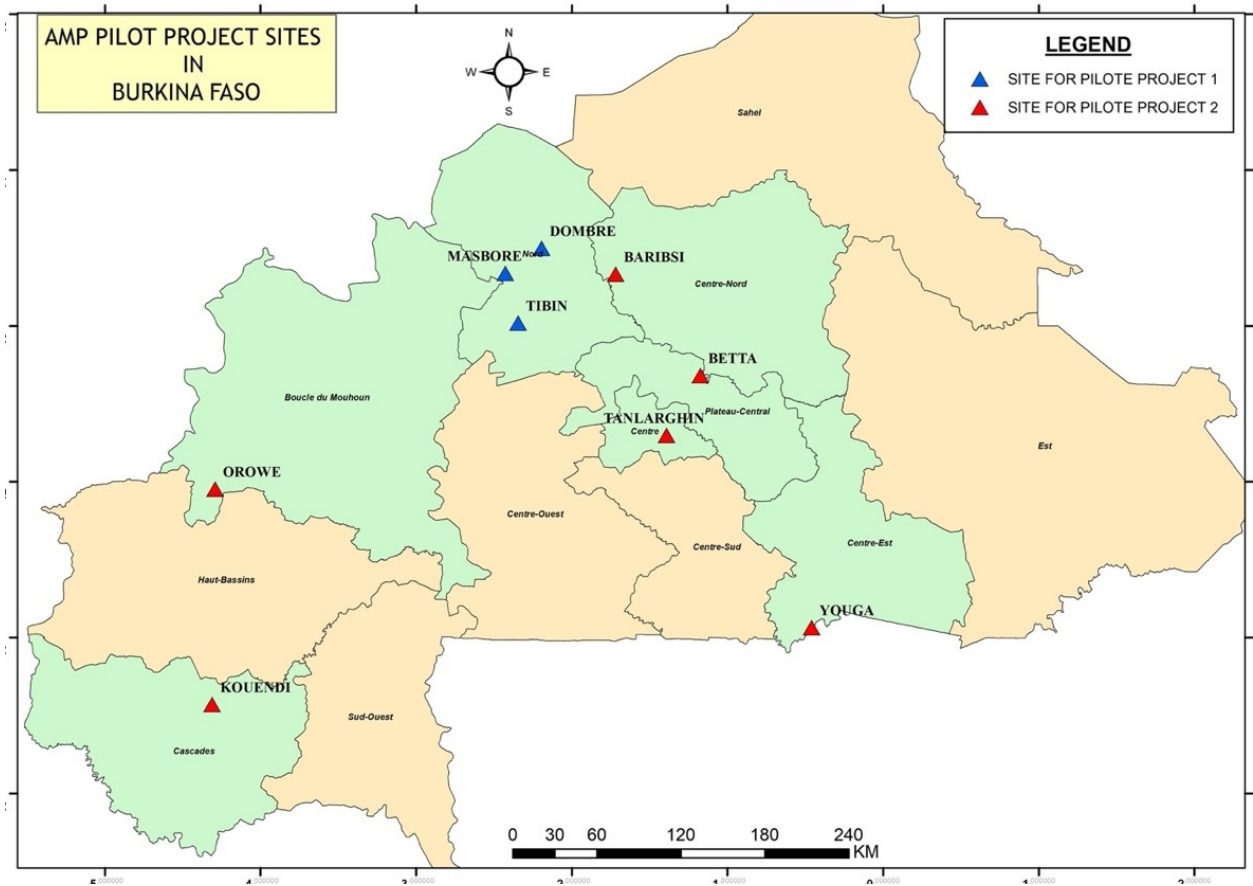
<http://www.ecreee.org/news/burkina-faso-launches-sahel-regions-largest-solar-power-plant>

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

A number of activities of the project such as trainings, communication and sensitization, studies and market assessment will have a nation-wide scope. On the other hand, the villages that will be targeted for the two pilot projects in Component 2 are geo-referenced on the map on Figure 3.

Figure 3: Project Map And Geo-Coordinates Of Pilot Projects? Sites



1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

This is a child project under the Africa Minigrids Program (AMP), which aims to scale-up the development of RE minigrids through increased participation of the private sector. The Burkina Faso child project is aligned with and contributes to the regional AMP as follows:

- It has a clear *objective* ? on cost-reduction and innovation for minigrids;
- It is aligned with the regional AMP?s common *architecture* of four key components (policies/regulation, private sector, financial scale-up, digital);
- It puts emphasis -and seeks to develop comparative advantages as expected by regional AMP, in three *key areas of opportunity*? (national dialogues on delivery models; productive use; digital).

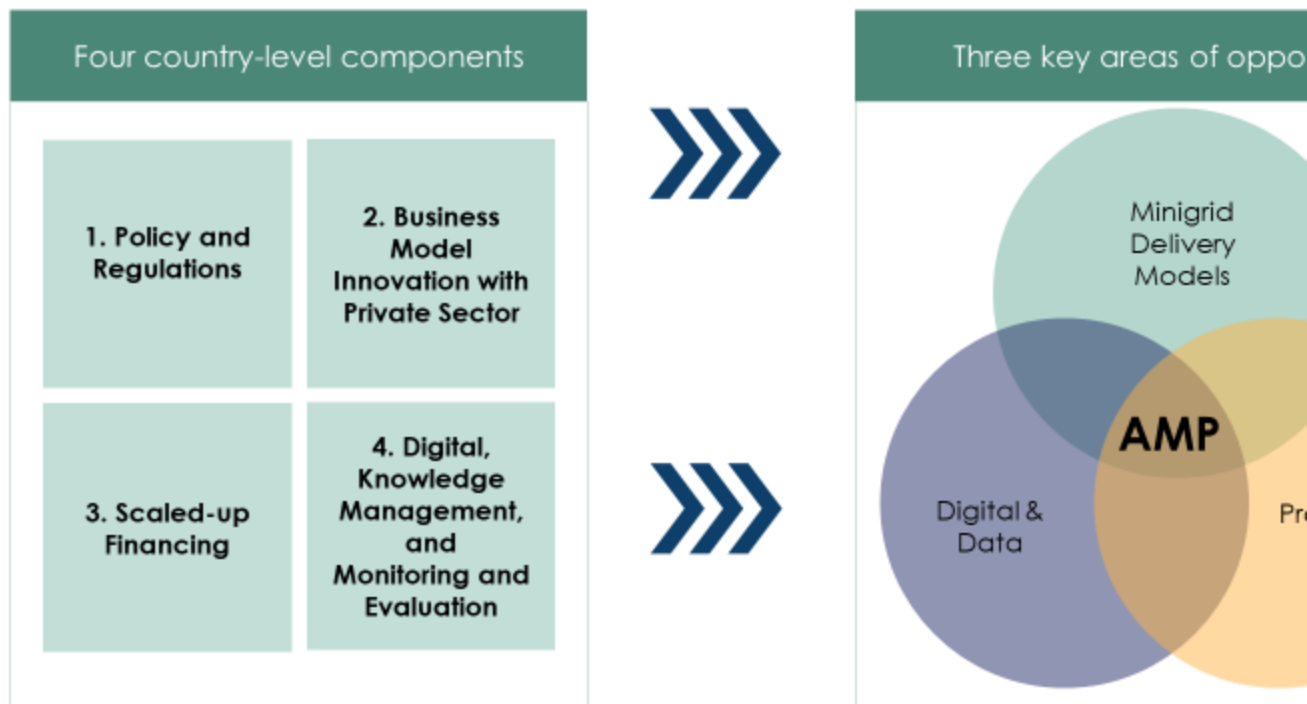
The overall project objective is to **support access to clean energy by increasing the financial viability and promoting scaled-up commercial investment in solar PV minigrids in Burkina Faso**, which mirrors the main objective of the regional program. To achieve this, four components/outcomes have been developed to scale up solar PV minigrids based on cost reduction levers, while simultaneously embedding the renewable minigrids in the agriculture value chain for productive energy uses and renewable electricity-induced local commodity value addition. The activities proposed under the four project outcomes will seek to: (1) address policy, regulatory and institutional barriers to promote private sector investments in solar minigrids at scale (2) propose innovative business model approaches coupled with cost reduction levers to strengthen private sector participation in solar PV minigrid development for maximizing SDG impacts; (3) make low-cost financing more accessible, and financial schemes more attractive to private investors; and (4) support the scaling up of rural electricity access for the sustainable development of communities through a sound and robust knowledge management framework.

Therefore the components of the regional project mirror exactly those set by the regional AMP in order to meet its objectives, as described on Figure .

Figure 4: AMP?s Objective, Architecture and Areas of Opportunity

AMP - Programmatic Focus/Value

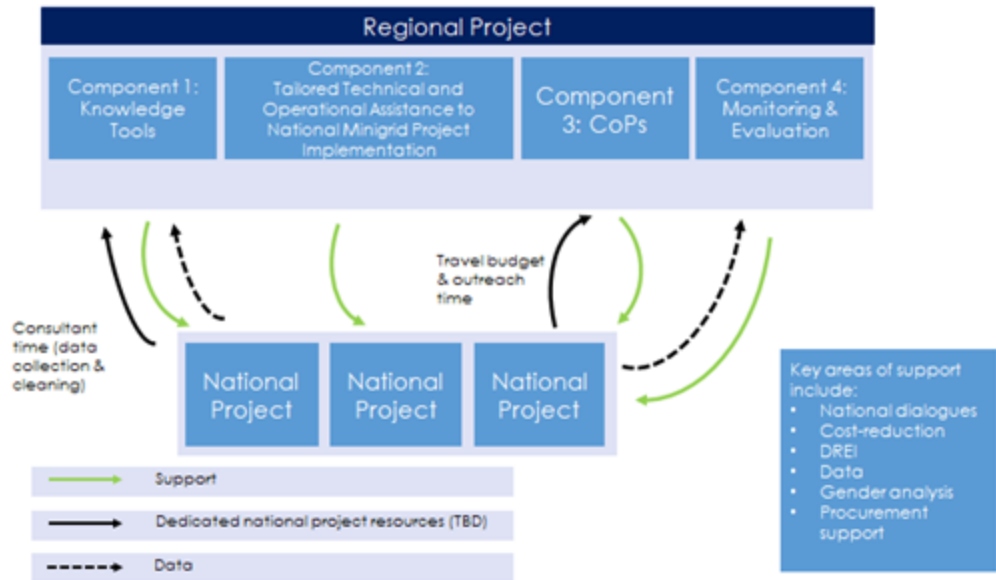
AMP's objective to reducing minigrids costs is achieved via a country-level architecture of four components, with the program focusing on three key areas of opportunity



The program's specific outputs under each of the four components of the project are designed to systematically target the underlying investment risks for renewable energy minigrids advancement in Burkina Faso. This strategy is appropriate to the Burkina Faso context where several causal investment risks for renewable energy minigrids are preventing increased private investment, GHG emission reduction, progress towards SDG7 and livelihood improvement. Furthermore, there is a dedicated mechanism for *interface between the regional project and national 'child' projects* as it relates to Component 4 in particular, as well as other components in general, as illustrated on Figure.

Figure 4: AMP Regional project interactions with national projects

AMP Regional Project - interactions with national projects



2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

A number of project partners have been identified as a part of the project approach to catalyse a multi-stakeholder process. The full Stakeholder Engagement Plan (SEP) is available as Annex 9 to the project document. The multi-stakeholder process has been adopted during the design stage and will be used as well during project implementation. The stakeholders that have been engaged in the preparation of the project and their participation (roles and responsibilities) in its implementation are given in Table 5 below. These stakeholders were consulted during the PPG stage and their views and suggestions were used to shape the design of the UNDP-GEF project.

Table 5: Stakeholder Involvement in the Implementation of the Project

Governmental and Intergovernmental organizations		
Institution / Company	Role in the Energy Sector and involvement in the project	Relevance to the project

<p>Ministry of Energy, Mines and Quarries (MEMQ) and directions</p>	<p>The Ministry of Energy is responsible for defining and implementing national energy policies, development of the energy sector, strategic planning of electrification and regulation and control of electrical infrastructures. The ministry is accountable to UNDP and GEF and will supervise ABER, the Executing Agency.</p>	<p>Provides overall oversight to the project as the responsible ministry in charge of energy. Actually, mandated ABER to serve as Executing Agency for the AMP project. Is a strategic partner to the project's implementation as the ministry in charge of the energy. This partner will be relevant to all components and outputs.</p>
<p>Agence Burkinab? de l'lectrification Rurale (ABER)</p>	<p>National agency for rural electrification under the MEMQ that is responsible for the implementation of national rural electrification policy; mobilizing funding; supporting developers and private sector investment;</p> <p>Serves as the Executing Agency and co-financier to project.</p>	<p>Serves as Executing Agency coordinating the AMP project in Burkina Faso on behalf of the MEMQ. Will be the secretariat of the PMU. This partnership is relevant to all components of the project. ABER has committed co-financing to the project and will also ensure coordination with other identified projects as the lead implementer for all rural electrification project.</p>
<p>Directorate General for Renewable Energy (DGER)</p>	<p>In charge of guaranteeing and ensuring the implementation of the policy of efficient integration of renewable energy in the country's sustainable energy supply system. Ensuring consultation for synergy other actors of the sector and the technical and financial partners.</p>	<p>Will be joint responsible party for PC 1 (policy and regulation) in collaboration with ECREEE.</p>
<p>Directorate General of Sectoral Studies and Statistics (DGESS)</p>	<p>Responsible for the design, programming, coordination, monitoring and evaluation of development actions at the Ministry level.</p>	<p>Will participate in PC 1, possibly Output 2.1 (pilot project) in regards to energy efficient technologies and also Output 4.4: A Data Strategy is developed and implemented, including linkages to and following guidance from the regional project; Output 4.3: Lessons learned are captured and shared with the regional project; Output 4.8: A project inception workshop held to officially launch the project and, among other aims, familiarize key stakeholders with the detailed project strategy, roles and responsibilities of the project team.</p>

<p>Directorate General for Energy Efficiency (DGEE)</p>	<p>in charge of promotion of energy efficiency, technological innovation, technology transfer and animation of a consultation framework for a synergy of actions with the other actors of the sector and the technical and financial partners.</p>	<p>As directorate under the MEMQ, this partner will participate in PC 1 and output 2.1 (pilot project) in regards to energy efficient technologies.; Output 4.8: A project inception workshop.</p>
<p>Autorité de Régulation du Secteur de l'Électricité (ARSE)</p>	<p>Independent regulatory authority under the Office of the Prime Minister and is responsible for ensuring proper implementation of electricity regulation and laws, protecting electricity consumers' interests, licensing IPPs, setting tariffs, etc.</p> <p>ARSE is one of the key stakeholders of the project. The agency will receive capacity-building in terms setting tariffs, understanding delivery models, etc.</p>	<p>This partner will support Outputs 1.1 to 1.4 and Outputs to 2.1 and 2.2 in terms of regulatory aspects of the project and Output 4.8: project inception workshop. ARSE as a partner will be consulted and lead on regulatory issues related to the project. For instance, in the pilot project new tariffication and delivery models will be tried so ARSE will be consulted by ABER during this process.</p>
<p>Agence Nationale des Énergies Renouvelables et de l'Efficacité Énergétique (ANEREE)</p>	<p>National agency for renewable energy and energy efficiency under the MEMQ, responsible for (i) structuring the renewable energy and energy efficiency sectors; (ii) mobilizing funding; (iii) supporting developers and private sector investments; (iv) and facilitating access to technology.</p> <p>ANEREE will be fully engaged in the project to support activities such as training, quality-assurance, etc. Synergies with existing activities will be leveraged as co-financing.</p>	<p>As a partner, ANEREE will be involved in Outputs 1.1 to 1.5 as well as Outputs 2.1 to 2.3 where ANEREE will be consulted for the selection of energy efficient equipment. As for Output 2.1 ANEREE will coordinate with ABER the management of batteries and converters at the end of their shelf-life. ANEREE will also be involved in Output 4.8: project inception workshop.</p>

<p>Agence Burkinab? de Normalisation (ABNORM)</p>	<p>Agence Burkinab? de Normalisation, de la M?trologie et de la Qualit? (ABNORM): By law ABNORM is the only national agency responsible for developing standards. One of ABNORM?s key objectives is to cover all Burkina Faso?s priority sectors for standardization (in particular the food, electro-technical, environmental, building and civil engineering sectors). Therefore, the project needs to involve ABNORM from the onset of Output1.3 Domestication of quality standards for solar minigrid components, and institutional capacity of national standards organizations/bureau strengthened. Additionally, ABNORM must be involved in the certification of skills in the installations and O&M of minigrids.</p>	<p>ABNORM will be a key partner in regard to Outputs 1.1, 1.2, 1.3 and 1.4. This partner will be consulted by ABER around the following in relation to its mandate:</p> <ol style="list-style-type: none"> 1. Developing and disseminating national standards, technical specifications and codes of practice; 2. Raising the awareness of economic operators and providing training in regard to standards and quality management tools; 3. Ensuring quality control and inspection of products, goods and services, whether imported, exported or locally-produced; 4. Ensuring the certification of products, systems or personnel to national or international standards; 5. Ensuring the calibration of measurement instruments and their traceability to the International System of Units; 6. Advising and assisting industrial, commercial and services companies in standardization, certification, metrology and quality matters.
<p>Ministry of Environment</p>	<p>The Ministry in charge of the environment will be a partner in the implementation of the project, as the national ecovillage strategy and its action plan are carried out by this Department. Similarly, it houses the operational focal point of the GEF.</p>	<p>The ministry oversees the Ecovillage initiative, which is expected to house pilot projects. It will be informed on the project?s progress as a member of the Executive Board.</p>

<p>Permanent Secretariat of the National Council for Sustainable Development (SP/CNDD)</p>	<p>Role is to mobilize and implement adequate funding for the promotion of sustainable development, will be the linchpin throughout the implementation of this project. It will participate in the strategic orientation of the project.</p>	<p>SP/CNDD will be a key partner to the project. The SP/CNDD will be consulted by the ABER regarding electrified the pilot project to be implemented in the 6 ecovillages. Similarly, it will contribute to the scaling up of knowledge and lessons learned, as well as to the perpetuation of achievements in the target ecovillages. SP/CNDD will play a relevant role in Output 4.4: A Data Strategy is developed and implemented, including linkages to and following guidance from the regional project; Output 4.3: Lessons learned are captured and shared with the regional project; Output 4.8: Project inception workshop held to officially launch the project and, among other aims, familiarize key stakeholders with the detailed project strategy, roles and responsibilities of the project team; Output 4.8: Replication plan (including investment plan) for scaling up rural energy access developed. Also, the SP/CNDD will lead social and environmental safeguards aspects of the project.</p>
<p>The Directorate General of Green Economy and Climate Change (DGEVCC)</p>	<p>Under the ministry of environment, Green Economy and Climate Change, DGEVCC is responsible for developing and monitoring the implementation of a national strategy to promote the green economy.</p>	<p>Is already a partner of ABER in the framework of the Ecovillage Initiative. This partnership will continue for the AMP project. The partner will be strongly consulted by the ABER in the choice of ecovillages to electrify. Similarly, it will contribute to the scaling up of knowledge and lessons learned, as well as to the perpetuation of achievements in the target ecovillages. It will also play a key role in the promotion and creation of green jobs in electrified ecovillages.</p>

ECOWAS Center for Renewable Energy & Energy Efficiency (ECREEE)	ECREEE is a specialized agency of the ECOWAS with a mandate to promote renewable energy and energy efficiency markets, with the overall objective to contribute to the sustainable economic, social and environmental development of West Africa by improving access to modern, reliable and affordable energy services, energy security and reduction of energy related externalities (GHG, local pollution);	This partner will be a responsible party for the Project Component 1. To this end an agreement will be signed with ABER. ECREEE is also providing co-financing to this project. Lastly, ECREEE will be involved in component 2, 3 and 4 as well.
Cooperatives and industry associations		
Fédération Nationale des Groupements de Naam (FNGN)	Fédération nationale des groupements de NAAM is a cooperative with more than 600,000 members in Burkina Faso, including a support structure for women's activities, a support unit for agro-economic activities, an education program and a microfinance institution. FNGN manages more than 160 multifunctional platforms operated by its members.	FNGN will be a partner specifically on Output 2.1 (pilot project) and will also be on the project's board as representative of the final beneficiaries
Association of Renewable Energy Professionals of Burkina Faso (APER-BF)	APER is the industry association, created since 2016. APER has a membership of 118 renewable energy professionals and is mandated to promote the interests of its members specifically and more generally of the entire renewable energy community.	APER will be a partner specifically on Output 1.1 and will be highly involved on Output 1.2, Output 1.3, Output 1.4, Output 1.5, Output 2.1 (pilot project), Output 2.2, Output 2.3 and several outputs under component 4. APER will also be on the project's board as representative of the final beneficiaries.
African Minigrad Development Association (AMDA)	AMDA (www.africamda.org) is Africa's first trade association dedicated exclusively to the mini-grid industry, and is composed of developers operating AC mini-grids that ensure power reliability of at least 20 hours per day. The association also works closely with a variety of solution providers, including EPCs, hardware and software vendors and integrators.	AMDA will partner with the project to support Output 2.3 and also various outputs of component 4 to promote knowledge-sharing and South-South collaboration, given AMDA's strong experience from Kenya and Tanzania.
Alliance for Rural Electrification (ARE)	The international business association promoting a sustainable decentralized renewable energy industry for 21st century services and creating local jobs and inclusive economies.	With the establishment of its West Africa chapter based at the AfDB, ARE will partner with the project to support Output 1.1, Output 2.3, all of Component 3 and some outputs of Component 4.

It is understood that the success of the AMP project in Burkina Faso depends greatly on the full engagement of all identified stakeholders. Stakeholder engagement was at the core of the project design

from the PIF to PPG stage with, focus groups, face-to-face and remote meetings when COVID-19 restrictions allowed, leading to inception and validation meetings for the project document.

During project implementation stakeholders will be consulted via a multi-faceted approach, using various means of engagement / communication. The project will regularly consult with the beneficiaries and other stakeholders both at the individual and the organizational level to ensure that they have an opportunity to provide their input in the decision-making and implementation process. This will promote a greater sense of ownership and strengthen the commitment and sustainability of activities after the project. Output 1.1, a multi-stakeholder platform be established to serve as a medium for informing and engaging different stakeholders and target groups, that will be represented within the platform. Also under Component 2, an industry association will be strengthened to serve as a representative body for engagement with the private sector and between the private sector and other stakeholders. Under Component 4, communication channels will be established through meetings, sensitization and awareness raising campaigns among target beneficiaries, use of print media, social media and community radios to reach out to a wider audience. The specific channel (s) to be used and the timing will be determined by the project management unit and the related costs will be included in the budget.

In regard with key aspects of the project such as the implementation of pilot projects (Output 2.1), private sector companies will be required to conduct local stakeholders consultation and awareness-building activities. In order to ensure local communities and target groups are fully informed and engaged in the decision-making process regarding the pilot projects, private promoters will submit a letter of endorsement for the pilot signed by representatives of local communities (women and youth groups, head of village, etc.). In particular, the following key groups of stakeholders identified during the PPG phase will be consulted during implementation:

- ? National **government institutions** such as the MoEMQ, which will host the Multi-Stakeholder Platform and its affiliated agencies and directorates. In the framework of this project the MoEQ and ABER will work closely with the ministry of environment, GEF Focal Point, **SP/CNDD**, which will be kept up-to-date of all project activities as a member of the Project Board /Steering Committee.
- ? **Civil society organisations (non-governmental organizations)** such as the National Union of COOPEL, and the various other associations/cooperative along the energy, agriculture value-chains and other productive uses, which are important stakeholders in energy market ecosystem from a supply or demand perspective. The project will rely on these associations for large scale consultations, outreach/awareness. More importantly, civil society organizations will play various roles in the project, such as consultations, advisory, co-financing, as well as supporting decision-making. For instance, FNGN, a federation of women groups involved in the agriculture value-chain could be a stakeholder for the pilot projects.
- ? **Development/donor organisations** such as AfDB, the World Bank, the Sida, EU, UNCDF and ECREEE will be fundamental stakeholders in the project by providing co-financing and supporting the implementation of key activities such as studies, capacity-building trainings, awareness-building and knowledge-sharing along the four components.

- ? **Private sector actors, namely** minigrid companies, industry associations as well as local commercial financial institutions (commercial banks and MFIs) will play an important role in project in virtually all four project components, namely, policy and regulatory activities (outputs 1.1 through 1.9), project and business model innovation - implementation of pilot projects- (PC 2), access to finance (PC3) and PC4 such as awareness-building, knowledge-sharing, stakeholder consultations. Private sector organizations will be consulted, informed, involved in the decision-making and implementation of the project.
- ? **National Off-grid Energy Multi-Stakeholder Platform**, created in the framework of ROGEP will be operationalized to play an important role in the implementation arrangement of the project. This taskforce, which will be under the responsibility of the ministry of energy but operationally led by UNDP, Sida and UNCDF will report to with the PSC.

The COVID-19 pandemic will be factored into stakeholder engagement. Therefore, meetings where necessary will be held virtually to ensure safety of participants. Several types of actors will be particularly involved in order to guarantee beneficiaries' full participation in the project, especially those representing vulnerable and marginalized groups:

- ? Association des Professionnels des Energies Renouvelables (APER), AMDA, ARE and Gogla industry association composed of private sector actors representing the voice of the industry.
- ? The village development committees (*Comit? villageois de d?veloppement*), which are representatives elected at the village level who represent villages' interests at the Municipal level.
- ? F?d?ration National des Groupements de Naam National Federation of Naam Groups (FNGN), a cooperative with hundreds of thousands of members in Burkina Faso and manages more than 160 multifunctional platforms operated by its members.
- ? The Regional Agriculture Chambers (*Chambres R?gionales d'Agriculture, CRA*), which are regional structures representing farmers and promoting their development.
- ? Women organizations / groups, in order to ensure the specific needs of women are taken into account and their voices are heard.
- ? Farmers' cooperatives especially in the framework of the pilot projects. This include minority / indigenous groups Fulanis (herders), Bobos and Dogons (subsistence farmers).
- ? UNHCR, Save the Children, Africare, UN Women
- ? Workers' unions and youth group at the local, national and international level.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Gender-mainstreaming is an integral aspect of the project from the design to the implementation phase. The project will ensure the benefits are equally accessible to women, girls and all vulnerable groups in the target communities; in particular, the pilot projects will focus on the development and enhancement of income-generating activities for women and youth.

The constitution of Burkina Faso recognizes equality between men and women. The country is making progress towards gender equality and women empowerment. The GoBF developed a National Gender Policy (PNG) in 2009, building on Burkina Faso's Constitution and the Burkina Family Code of 1989, as well as international and regional laws it ratified. The cross-cutting action plan of the PNG is incorporated in sectoral policies in order to curtail inequalities in poverty, health, education, political participation, as well as other vital sectors. Furthermore, Burkina Faso, has signed on to the ECOWAS Policy for Gender Mainstreaming in Energy Access^[1] developed by ECREEE and adopted by the Authority of the Heads of States and Government. The goal of the ECOWAS Policy for Gender Mainstreaming in Energy Access is to address existing barriers that may hinder the equal participation

of women and men in expanding energy access in West Africa and, by extension, the success of the SE4ALL initiative and the ECOWAS Regional Policies on Renewable Energy and Energy Efficiency. Despite these efforts, gender equality remains a challenge in Burkina Faso. Burkina Faso ranks 146 out of 159 countries on the Gender Inequality Index[2], with only 9,4% of Parliamentary seats held by women and only 6% of the female population over 25 having at least some secondary education, versus 11,5% for men according to the same UNDP report. The country is in group 5 of the Gender Development Index[3], meaning it has only attained low equality based on the Human Development Index (HDI) achievements between women and men (absolute deviation from gender parity of more than 10 percent). All of the more reason, why gender and social inclusion will be mainstreamed through project activities under components 1, 2, 3 and 4 as women are disproportionately affected by the lack of access to electricity. During PPG phase, a gender analysis followed by a gender action plan (GAP) were developed to ensure that the project actively promotes gender equality and women's empowerment. Organizations involved in addressing gender-based issues were consulted during the PPG bilaterally and in focus groups. Following the analysis, the main recommendations in terms of gender considerations to be taken into account in the project are as follows:

The Analysis and Gender Action Plan (GAP), included as Annex 11 to the project document, is a result of this participative process. It ensures that gender aspects are fully included in all activities of the project in terms of project target population, activities, organization, performance indicators and are fully reflected in the Project Result Framework through gender-responsive indicators. The implementation and monitoring and evaluation of the GAP will be under the responsibility of the Project Coordinator.

[1] <http://www.ecreee.org/news/member-states-endorse-ecowas-policy-gender-mainstreaming-energy-access>

[2] <http://hdr.undp.org/en/composite/GII>

[3] <http://hdr.undp.org/en/composite/GDI>

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on private sector engagement in the project, if any

The programmatic approach of the project is to increase private sector investment in the renewable minigrid sector through risk and cost reduction levers. In fact, all outputs are geared towards this principle of making sure private sector actors are able to thrive in the minigrid market in Burkina Faso. For instance, under Component 1, strengthening the policy and regulatory context with the formulation of a mini-grid vision and roadmap for the country and assisting with the identification of the most viable potential sites, should encourage investments. Component 2 directly targets the interest of private sector players with the focus on piloting and demonstrating mini-grids that incorporates productive use and innovative business models. It also incorporates targeted capacity building with the development of a training curriculum and course offering related to clean energy mini-grids in general combined with country specific policy developments, direction from the national dialogue and experience from pilot projects. Component 3 also includes for the establishment of a knowledge network for industry members to facilitate networking and knowledge sharing, drawing from national and regional project experience and knowledge resources. With over 30 local companies identified in the mini-grid/off-grid sector, the AMP child project will build on past experience to ensure private is strengthened and fully involved.

With the support from ECREEE and IRENA, an industry association, APER (The Association of Renewable Energy Professionals), was established in 2015. Also, with support from ECREEE and the World Bank, a multi-stakeholder platform (taskforce/community of practice) including representatives from the private sector was established in 2019. The Burkina Faso child project promotes an active consultation and partnership with the private sector from the formulation to the implementation phase. During the PPG phase, APER, the local umbrella industry association and individual companies were consulted to ensure their buy-in and active participation. APER will serve as member of the multi-stakeholders platform as well member of the project's steering committee. Therefore, the private sector will be involved in all decision-making instances related to the project. Private actors will be involved as key counterparts in specialized training and technical advice will be offered based on industry needs. The private sector, from both the supply and demand side, is a major actor in the project, not only as beneficiary but also as purveyor of resources (co-financing and pilot projects) and skills (trainings to local communities, women, etc.).

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The PPG phase identified / confirmed a series of risks that can potentially jeopardize the success of the project and the achievement of the expected outcomes. These risks include but are not limited to the following categories: political and security, climate change, social and environmental, operational, organizational and of course, sanitary and socio-economic as a result of the COVID-19 pandemic and its uncertainties (see Table 6 below). The overall risk level of this project is substantial. The project's major risks and risk management/mitigation measures are identified and listed in the risk registry in Annex 7 to the project document.

COVID-19 risks, opportunities and mitigation measures: Given the magnitude of the global pandemic of the COVID-19 virus, it is undeniable that it remains a key operational risk to be considered in the framework of this project, as highlighted in Table 6 below and Annex 7 to the project document. At the time of writing, variants and second/third waves of infections are emerging worldwide with concomitant reactions from authorities, ranging from mild restrictions on movement and curfews, to strict lockdowns and strict domestic travel restrictions. The strictest forms of restrictions could negatively impact activities requiring the physical presence of team members and stakeholders. Mitigation measures have been planned in this project. For instance, online communication and teleconferencing options will be investigated and

given preference as needed to facilitate social distancing for technical assistance activities. At the pilot level, risks could relate to supply chain delays or disruptions, limited availability of implementation teams due to sickness or restrictions, broader time and cost impacts of COVID-19 compliance for the project, and a reduced ability to pay of minigrad consumers due to the negative economic impacts of the pandemic. These risks will be reassessed at implementation stage and contingency planning developed as needed, for instance to schedule procurement in a way that minimizes disruptions and identify alternatives when bottlenecks are faced by the project. Duty of care for project team members, workers and the target communities will also be ensured, an aspect that is further elaborated in the SESP (Annex 6 to the project document) and ESMF (Annex 10 to the project document).

COVID-19, represents also an opportunity for the project, especially when it comes to building the resilience of health infrastructure and the rural population through increased access to clean, affordable and reliable electricity. The strategy of this project will support the GoBF's COVID-19 response and recovery by building the resilience of the vulnerable populations and health facilities through provision of sustainable energy and income generating activities under Output 2.1 (pilot projects). Specifically, the pilot projects will target the water and agriculture sectors as demanded by Burkina Faso's national stakeholders during the PPG phase, which called for showcasing water-energy and food nexus in order to promote socio-economic growth, increase private sector engagement and reduce poverty in rural areas. Further elaboration on the opportunities provided by the COVID-19 pandemic is provided in Annex 19 to the project document.

Table 6: Project Risks Table. See also the Risk Register in Annex 7 to the project document. Further social and environmental risks are described in the SESP (Annex 6 to the project document).

#	Description	Risk Category	Rating / Impact & Likelihood	Risk Treatment / Management Measures
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1	Lack of Government commitment to develop and implement policies that promote decentralized energy	<p>Political</p> <p>5.1. Government commitment</p>	<p>The rating of this risks is Moderate because it could make the project less of a priority or redundant and difficult to implement without the support of the government of Burkina Faso's (GoBF).</p> <p><i>L = 2</i></p> <p><i>I = 4</i></p>	<p>In the PPG phase, all attempts were made to make sure the project's objectives and activities align with national priorities and program especially for rural electrification.</p> <p>The involvement of the ministry of energy through the rural electrification agency (ABER), will ensure government of Burkina Faso's (GoBF) commitment and relevant institutions political commitment to renewable energy promotion in order to boost access to energy through adequate ongoing stakeholder consultations, close coordination and active involvement in project implementation including transparent communication of project milestones to show progress and successes as well as commitment of resources.</p> <p>The multi-stakeholder's platform, which will be put in place in the framework of the project and the fact that the UNPD is chairing the donors' coordination group will also serve to manage / mitigate this risk.</p>
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2	<p>Changes in regulations and strategy</p>	<p>Regulatory</p> <p>6.1 Change in the regulatory framework within the country of operation</p>	<p>The probability of transformational changes in regulation for the off-grid sector is really high, therefore this risk has a High rating. This risk will, however, have very positive impacts on the projects as one of the biggest barriers impeding the widespread promotion of clean energy minigrids is inadequate regulatory framework such as delivery method, tariffs, standards, etc.</p> <p>L=5</p> <p>I=5</p>	<p>During the PPG phase, all consultations with stakeholders indicated the need for changes regulatory reforms. The project implementer partner (ABER) and technical and financial partners such as SIDA, EU, WB, AfDB indicated that reforms will be engaged in the course of 2021 onward.</p> <p>The AMP Child project (national) and the regional AMP will be highly involved in the formulation, implementation and dissemination of these reforms under their components 1, 2, 3 and 4, which are: Policy and Regulations, Project and Business Model Innovation with Private Sector Engagement, Innovative Financing and finally, Convening, dissemination, tracking (knowledge management).</p> <p>This is one of the rare risks that will have a positive impact on the project and its occurrence is fully expected.</p>
3	<p>Investments made in Component 2?</p> <p>Project and Business Model Innovation with Private Sector Engagement (pilot projects) may not be economically and financial viable and do not demonstrate cost reduction of renewable energy.</p>	<p>Financial</p> <p>2.1. Cost recovery</p>	<p>The rating of this risks is Moderate because pilot?s projects may not be able to recover cost of investments due to low purchasing power of customers.</p> <p>L =2</p> <p>I = 4</p>	<p>Stakeholders consultation and engagement in project identification and selection including adequate pre-feasibility studies. Also, pilot projects as per the stakeholders consultations are all based on productive uses in agriculture value-chains in off grid communities in order to safeguard payments. The fact that minigrids are anchored in productive uses which have a constant flow of revenues, this increases the economic and financial viability of the project. In fact, one of the upsides of this project is capitalize on experience from other African countries and South-South cooperation to foster exchanges of knowledge and expertise from other projects.</p>

4	FOREX issues due to the fact that pilot project developers and financial institutions may receive loans and investment in dollars.	<p>Financial</p> <p>2.4. Fluctuation in credit rate, market, currency</p> <p>2.5. Delivery</p>	<p>The rating of this risks is Moderate because pilot projects may be subjected to high interest rates and forex fluctuations and limit bankability of project for funding by investors.</p> <p>L =2</p> <p>I = 4</p>	<p>Training will be provided to local financial institutions so they fully understand the risks and benefits of solar minigrid projects. Therefore, local FI will be more inclined to finance project in local currency and also put in place financial products in line with the specific needs of the minigrids market.</p>
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5	Project delays or disruptions due to COVID-19	Operational	<p>The rating of this risk is Moderate.</p> <p>L = 3</p> <p>I = 3</p>	<p>The COVID-19 pandemic is, at the time of writing, at a point of inflection. Variants and second/third waves of infections are emerging worldwide with concomitant reactions from authorities, ranging from mild restrictions on movement and curfews, to strict lockdowns and strict domestic travel restrictions. The most robust forms of restrictions could negatively impact activities requiring the physical presence of team members and stakeholders.</p> <p>At the pilot level, risks could relate to:</p> <ul style="list-style-type: none"> - Supply chain delays or disruptions. Delays with importing or local availability of material and equipment due to reduced manufacturing capacity impacting planned delivery timelines. - Availability of implementation teams. Increased absenteeism of resources due to sickness, the need to care for others, or restrictions on travel may impact project efficiency or progress. - Broader time and cost impact of COVID compliance. Project timelines may be delayed when scheduling around social distancing requirements and/or costs may increase to ensure compliance with COVID-19 guidance. - Reduced ability to pay of minigrid consumers due to the negative economic impacts of COVID-19. <p>Scheduling of activities such as site development and on-site training that may require physical presence in certain localities has been front-loaded, allowing for a buffer in case the sanitary situation deteriorates to the point of preventing the swift realization of these activities.</p> <p>Online communication and teleconferencing options will be investigated and given preference to facilitate social distancing, where needed.</p>
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6	Lack of coordination with existing initiatives / stakeholders	Operational 3.5 Synergy potential (linking with other initiatives as relevant)	The rating of this risk is Low . L = 2 I = 2	There will be representatives of the donor partners in the multi-stakeholders platform. Also, ABER being the coordinating entity for rural electrification projects and the Executing Agency of the GEF7 child project will contribute to better coordination. Moreover, the project will employ a robust and inclusive stakeholders engagement.
7	Burkina Faso is highly vulnerable to climate change and is already being impacted by frequent droughts and decrease in water availability which contributes to famine, lowering of agricultural yields and weakening of the economic base, triggering a process of impoverishment.	Social and Environmental 1.4. Climate change and disaster Safety and Security 8.5 Natural Hazards 8.6 Manmade Hazards	The rating of this risks is Substantial as climate impacts and variability mostly droughts and flooding in Burkina Faso are frequent. The impact on the minigrid infrastructure is minimal. However, as the pilot projects are targeting agricultural value-chains (small scale farmers), the climate related risks affect their ability to pay. L =4 I = 4	Climate risks assessment tool will be used to assess the vulnerability of all pilot projects to climate impacts are fully integrated into the project design.

8	Institutional and private sector partners will not be capable of playing their roles	Operational 3.8 Capacity development of national partners	<p>The rating of this risk is Substantial as with recent reforms and those foreseen, stakeholders will need some time to understand and/or learn their new roles. It is important to ensure the various stakeholders are able to fully take play their role for market uptake of clean energy minigrids.</p> <p>L = 3 I = 4</p>	<p>The project is going to provide capacity building to all stakeholders from government, private sector and civil society. Under components 1, 2, 3, especially institutional actors such as the rural electrification agency, the regulator, and standards body as well as private sector companies and financial institutions will receive targeted capacity building.</p> <p>As far as ABER the Executing Agency is concerned, the HACT (assessment) which was done during the PPG phase confirmed that ABER is capable of managing project funds. Moreover, a Responsible Party will implement activities. For which ABER has weaknesses.</p>
9	Workers and target communities are not fully briefed/trained /protected during installation and/or operation of new equipment	Operational Occupational safety/health and well-being	<p>The rating of this risk is Moderate.</p> <p>L = 2 I = 4</p>	<p>In the framework of pilot project sever stakeholders engagement and sensitization activities are foreseen. Project developers are private sector companies that are used to abiding laws and rules in place in terms of labor and quality standards. However, ABER and ANEREEE will safeguard the target communities by doing appropriate checks and safeguards on equipment (prior to importation and on arrival) and personnel who will be involved in installation. Moreover, the local community will be involved through community-level conversation, sensitizations to understand how to avoid to prevent incidents.</p>

10	Risk to indigenous peoples	Social and Environmental 1.11. Stakeholder engagement	The rating of this risk is Substantial . L = 3 I = 4	Due to the relative nature of the term 'indigenous' a generic concept is considered. This may include tribes, first peoples/nations, aboriginals, ethnic groups, occupational and geographical related groups like hunter-gatherers, nomads, peasants, hill people, etc., are also considered for all practical purposes as 'indigenous peoples'. At the PPG phase, this country has been found as having indigenous groups at the national level. This increases the risks of the project on indigenous peoples. However, pilots have been delimited to a region where it is unlikely that indigenous people will be found. An indigenous people assessment has been conducted by an Environmental and Social expert, and an Indigenous Peoples Plan Framework (called Vulnerable Groups Planning Framework) is being developed as part of the PPG phase. It is expected that the risks identified here will be mitigated and managed during the project cycle. As part of the ESIA/ESMP, an Indigenous Peoples Plan will be put in place and Free, Prior and Informed Consent (FPIC) secured, if necessary for SES compliance. See ESMF (Annex 10 to the project document) Attachment II and IPPF for details of assessment and management of this risk.
11	Sector stakeholders do not participate/engage actively in the project.	Social and Environmental 1.11. Stakeholder engagement	The rating of this risk is Low . L = 2 I = 2	A well-structured national consultation and dissemination process will be developed that allows for active dialogue and involvement of all stakeholders during the project duration.

12	Limited experience and capacity of project partners and executing entities/Institutions.	Operational 3.8. Capacity development of national partners Strategic 7.3 Capacities of the partners	The rating of this risks is Moderate. L =2 I = 4	For national procurement rules will be applied to procure experienced project partners and executing entities/Institutions with demonstrated and successful past experience in the sector.
13	Social and political conflicts. More recently, terrorist activities have escalated and the uncertainty of this events could affect project implementation in conflict and terrorist prone areas.	Safety and Security 8.1 Armed conflict 8.2 Terrorism 8.3 Civil Unrest	The rating of this risk is Substantial. L =2 I = 5	The sites will be selected in a way that project activities will not take place in high-risk areas. Also, the project will work as much as possible with the decentralized authorities of the provinces and rural areas of Burkina Faso. The political will / support for this project is really strong as demonstrated through the PIF and PPG phases, which will serve to safeguard the project and its target population against the various security and political threats. Also, the project will be monitoring of the local and regional security and safety situation in order to inform safety decisions on site selection for pilot project and other activities. The project will benefit from the support of the local security forces and UNDSS to assess access to project sites and how to best protect beneficiaries and staff amid the ongoing conflict in the Sahel region.
14	Private sector is not able to deliver pilot projects	Organizational 4.6 Due diligence of private sector	The rating of this risk is Moderate. L = 2 I = 4	The pilot project selection follows a rigorous process of calls for proposals. Also, ABER, the Executing Agency or other stakeholders have to endorse the project and promoter. Prior to the start of the pilot project due diligence will be conducted to ensure the developer is able to fully execute the project without any major risk.

15	Procurements are not done appropriately and selected companies do not have the appropriate capacity to deliver	Organizational 4.10 Procurement	This rating of this risk is Moderate , as it may jeopardize the implementation of Component 2 (pilot project), which is an important part of the project. L = 2 I = 4	ABER has implemented several tenders. The HACT did not mention this risk as being of any significant importance. However, training on tenders will be provided to ABER and other parties.
16	Confusion in roles	7.4 Roles and responsibilities of partners	The rating of this risk is Low . L = 1 I = 3	Each partner's role and responsibility will be clearly spelled out. Also, where appropriate, contracts or MoUs will be executed.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The project will be implemented following UNDP's full national implementation modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of Burkina Faso, and the Country Programme.

Executing Agency: The **Executing Agency** for this project is the **Burkinab? Agency for Rural Electrification (ABER)**, which is under the authority of the newly established Ministry of Energy, Mines and Quarries (MEMQ), with a mandate to implement national rural electrification policy; mobilize funding; support developers and private sector investment.

The **Executing Agency** is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The **Executing Agency** is responsible for executing this project. Specific tasks include:

- ? Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The **Executing Agency** will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- ? Risk management as outlined in this Project Document;
- ? Procurement of goods and services, including human resources;
- ? Financial management, including overseeing financial expenditures against project budgets;
- ? Approving and signing the multiyear work plan;
- ? Approving and signing the combined delivery report at the end of the year; and,
- ? Signing the financial report or the funding authorization and certificate of expenditures.

A Harmonized Approach to Cash Transfer (HACT) micro-assessment of ABER was undertaken during the PPG phase. The scope of evaluation focused on 1) financial and internal control capacities and 2) technical and managerial capacities in planning, implementation and monitoring-evaluation of projects. The said assessment of ABER revealed the below findings:

- ? ABER has the technical and financial capacities to manage projects and programmes in line with the scope of the UNDP and GEF requirements as evidenced by highly-skilled personnel and appropriate checks and balances to safeguard funds.
- ? It is however, recommended to support ABER by updating its procedures manual and by conducting a short orientation/training in UNDP's procedures at the onset of the project.

ABER will host the project management unit (PMU) to coordinate the implementation of the Project. The PMU will have a Project Manager and Project Assistant.

During the PPG phase, further assessment showed that ABER has the operational capacity to play the **Executing Agency** role. The agency has the infrastructure in place and enough know-how to take on the responsibility and accountability to effectively use UNDP resources and deliver the project's outputs. However, it was also clear that 1) ABER is going to be managing many projects in the coming months; 2) ABER has limitations in terms of mandate especially on policy formulation and access to financing. Therefore, ECREEE and DGER (Component 1) and UNCDF (Component 3) will play the roles of responsible parties (see below). These organizations will go through a HACT micro-assessment and sign a contract with ABER.

Responsible Parties: The **Executing Agency** may enter into a written agreement with other organizations, known as responsible parties, to provide goods and/or services to the project, carry out project activities and/or produce outputs using the project budget. Responsible parties are directly accountable to

the **Executing Agency** in accordance with the terms of their agreement or contract with the **Executing Agency**. Any organization that is legally constituted and duly registered may become a responsible party including government agencies, NGOs, private firms, and academia.

During the PPG phase, consultations revealed that some stakeholders were better positioned to lead specific project activities due their core expertise, development objectives or availability of technical and financial resources, which allows them to better implement the intended activities. The **Executing Agency** will execute an agreement with the Responsible Parties expected to carry out some components/outputs of the project.

The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) & the Directorate General for Renewable Energy (DGER): For Component 1, ECREEE and DGER will share role of responsible party. ECREEE as a regional body has been spearheading policy and regulatory activities in the ECOWAS member states in order to promote sustainable energy markets. This leadership role bestowed upon ECREEE by the Authority of Heads of States and Government has made the agency a key stakeholder in the sector. Burkina Faso has received technical assistance from ECREEE. This shared responsible party role with DGER makes sense since DGER serves as ECREEE's focal point in Burkina Faso. It is expected that ABER will sign an agreement with ECREEE, which will be the recipient of funds earmarked for Component 1. ECREEE will in return fund activities dedicated to DGER. This arrangement is suggested as ECREEE is used to funding activities for DGER and other institutions under the Ministry of Energy, Mines and Quarries.

UNCDF: Given UNCDF's experience in financial inclusion and digitalization and considering that the organization is planning specific activities in terms of capacity-building of local financial institutions and promotion of financial digital tools to accelerate the promotion and scaling-up of off-grid energy companies, it is recommended to have UNCDF responsible for Component 3 entirely.

UNDP: UNDP is accountable to the GEF for the implementation of this project. UNDP will perform oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Board/Steering Committee.

Project stakeholders and target groups:

During the PPG phase there were extensive consultations with the various categories of stakeholders at the institutional, community and private sector levels. This process will continue during the implementation phase starting with the inception workshop and key stakeholder engagement activities (see Stakeholders Stakeholder Engagement Plan (SEP) available as Annex 9 to the project document). Also, the project will regularly consult with the beneficiaries both at the individual and the organizational level to ensure that they have an opportunity to provide their input in the decision-making and implementation process. This

will promote a greater sense of ownership and strengthen the commitment and sustainability of activities after the project. Output 1.1, the multi-stakeholders platform will serve a medium for informing and engaging different stakeholders and target groups, that will be represented within the platform. Under Component 4, communication channels will be established through meetings, sensitization and awareness raising campaigns among target beneficiaries, use of print media, social media and community radios to reach out to a wider audience. The specific channel (s) to be used and the timing will be determined by the project management unit and the related costs will be included in the budget.

In regards to the key aspects of the project such as the implementation of pilot projects (Output 2.1), private sector companies will be required to conduct local stakeholders consultation and awareness-building activities. In order to ensure local communities and target groups are fully informed and engaged in the decision-making process regarding the pilot projects, private promoters will submit a letter of endorsement for the pilot signed by representatives of local communities (women and youth groups, head of village, etc.).

Project organisation structure:

The project organization structure is described on Figure 5 below.

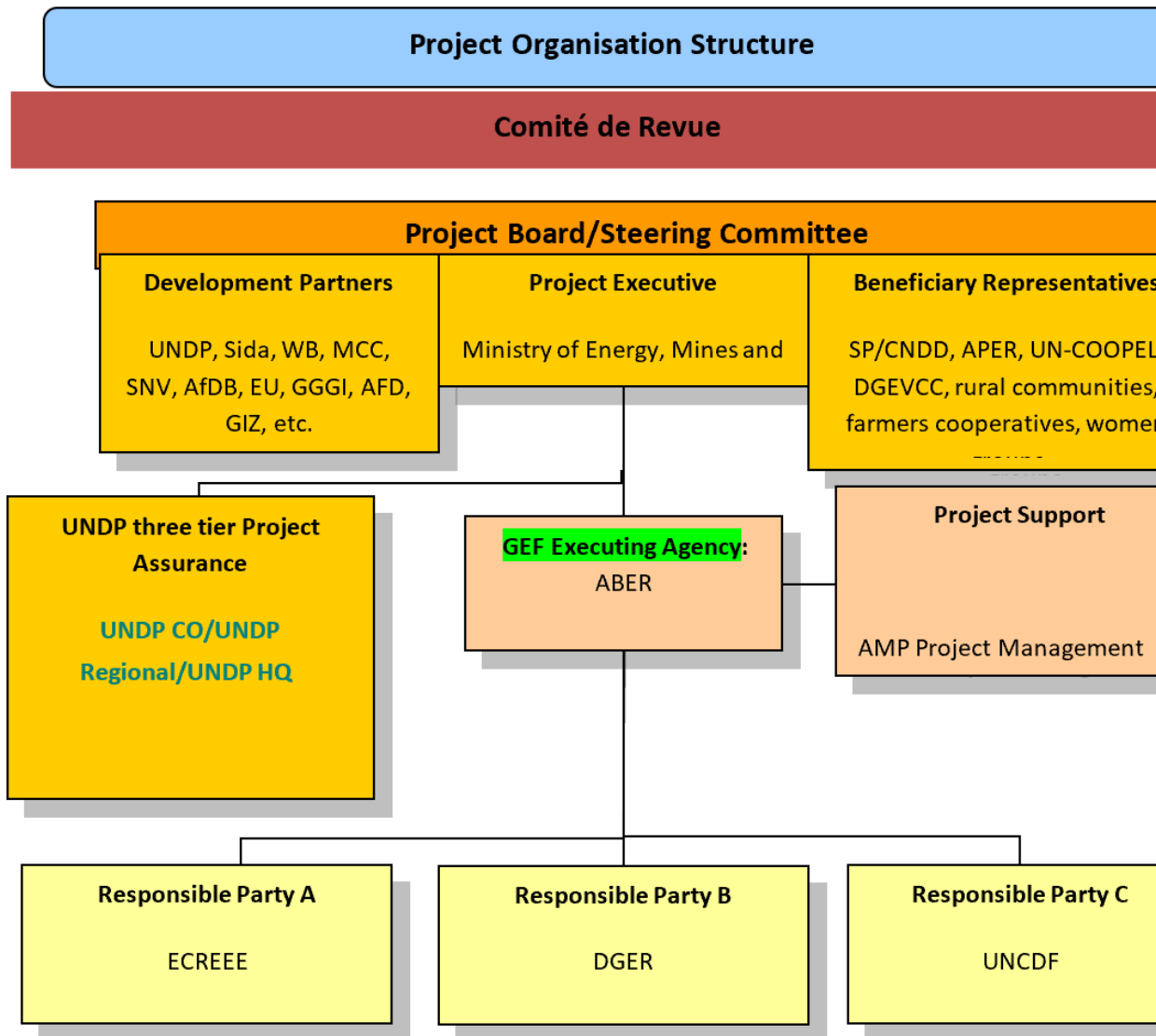


Figure 5: Project Organisation Structure

The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

Specific responsibilities of the Project Board include:

- ? Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
 - ? Address project issues as raised by the project manager;
 - ? Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
 - ? Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
 - ? Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
 - ? Ensure coordination between various donor and government-funded projects and programmes;
 - ? Ensure coordination with various government agencies and their participation in project activities;
 - ? Track and monitor co-financing for this project;
 - ? Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
 - ? Appraise the annual project implementation report, including the quality assessment rating report;
 - ? Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
 - ? Review combined delivery reports prior to certification by the **Executing Agency**;
 - ? Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
 - ? Address project-level grievances;
 - ? Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
 - Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

The composition of the Project Board must include the following roles:

- a. Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is: Ministry of Natural Resources and Energy, Director of Energy, Ms. Thabile Nkosi.
- b. Beneficiary Representative(s): Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization

of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representative (s) are: Nominated representative from the Renewable Energy Industry Association (REISWA) and elected representatives from the two pilot project recipient communities.

- c. Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partner is: UNDP Resident Representative, Ms. Rose Ssebatindira.
- d. Project Assurance: UNDP performs the quality assurance and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed, and conflict of interest issues are monitored and addressed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three ? tier oversight services involving the UNDP Country Offices and UNDP at regional and headquarters levels. Project assurance is totally independent of project execution.

Project extensions: The UNDP Resident Representative and the UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs in excess of the CO?s Agency fee specified in the DOA during the extension period must be covered by non-GEF resources.

South-South and Triangular Cooperation: The project will build on experience and lessons-learned from African countries with more matured minigrids markets. For instance, under Components 1, 2, 3 and 4, experiences from Mali, Senegal, Nigeria and East African countries will be used to improve the Burkina Faso minigrids market. Transfer of knowledge, study-tours and training will be organized at the ECOWAS and continental level. In addition, to bring the voice of Burkina Faso to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on renewable energy minigrids and showcase the project activities. The project will furthermore provide opportunities for regional cooperation with countries that are implementing initiatives on minigrids in geopolitical, social and environmental contexts relevant to the proposed project in Burkina Faso. As a member of the ECOWAS, a regional institution of 15 countries, Burkina Faso will benefit from ECREEE?s activities in minigrids and skills development in the framework of this project. This involvement of ECREEE in several project activities under component 1 and 2 ensures collaboration and knowledge-transfer between the project and others in countries like Mali, Senegal, Nigeria, Ghana, etc. Also, the AMP regional project will ensure collaboration and cross-learning between the participating countries through a dedicated Community of Practice and learning events.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The project is directly aligned with the national priorities related to energy, more specifically:

The framework of the Burkina Prospect 2025 upon which the Government crafted the National Economic and Social Development Plan (Plan National de Développement Economique et Social - PNDES), a five-year plan (2016-2020) meant to sustainably advance the social and economic conditions of the populations, especially, the most vulnerable ones. The PNDS identifies climate change as an important risk for the burkinab? economy and the country?s development. As a result, one of its objectives is to reinforce Burkina Faso?s adaptation capacities, among other things by reinforcing capacities for the relevant actors and increasing the number of sectoral and strategic policies that integrate climate change.

The Sustainable Development Goals, in the context of which the Government of Burkina Faso took specific steps towards addressing climate change issues in sustainable ways, by adopting the National Adaptation Plan (NAP 2015-2025) which provides integrated actions meant to enhance the development of relevant areas such as agriculture, livestock, water, forestry and the biodiversity. Burkina Faso had paved the way for its NAP by developing and adopting a National Adaptation to climate change Action Plan (NAPA) in 2007.

Burkina Faso has ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and the Kyoto Protocol in 2005. It has adopted national legislation to implement these protocols. In its Intended Nationally Determined Contribution (INDC) , Burkina Faso highlights agriculture as a priority for adaptation as the adverse impacts of climate change are already being felt while the sector is of crucial importance for a majority of its population both for their subsistence and income generation. The actions suggested in the INDC to improve resilience, such as supporting more resilient agricultural practices for example by using drought resistant seeds, will contribute to the success of the proposed project- Others

Addressing the lack of access to sustainable and affordable electricity in rural areas is consistent with the GoBF?s national strategies and plans, described in Table 7.

Table 7: Alignment with National Strategies and Plans

National Plan/Strategy	Date	Description
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Energy Sector Policy	2014 - 2025	Policy seeks to lower its cost of energy, increase the electricity access rate to 95%, and has a renewable energy target of 50% by 2025.
National Plan for Economic and Social Development (PNDES)	2016	Plan places special emphasis on improving the living conditions of the population and identifies lack of infrastructure as a major impediment to poverty reduction. Though the PNDES expired in 2020, a subsequent plan will most likely recognize the important role of energy for the poverty reduction in Burkina Faso.
Burkina Faso's SE4ALL action agenda	2015 - 2030	Sets Burkina Faso's long-term objectives in terms of renewable energy and energy efficiency.
Sustainable Development Goals (SDGs)	2015 - 2030	Project essentially supports SDGs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 17
Nationally Determined Contribution (NDC)	2015 - 2050	NDC seeks to support implementation of the mitigation contributions pledged by Burkina Faso to achieve the Paris agreement. Both the energy and agriculture sectors have been identified as priority for adaption and mitigation as both have the potential to build the resilience of vulnerable populations especially women and youth in the agriculture value-chains.
National Adaptation Plan (NAP)	2015 - 2025	Plan includes measures to address climate change by promoting sustainable technologies to enhance the development of relevant areas such as agriculture, livestock, water, forestry and biodiversity through integrated solutions including renewable energy and energy efficiency.
National renewable energy action plan (NREAP) and national energy efficiency action plan (NEAP)	2015 - 2030	The Plans include a broad range of RE&EE measures to be implemented at national levels to achieve to the regional ECOWAS Renewable Energy and Energy Efficiency Policy targets.

Energy Sector Policy Letter (LPSE)	2016 - 2020	The policy letter focuses on the following: <ul style="list-style-type: none"> ? developing energy production from renewable sources; ? Strengthening thermal electricity production; ? increasing the population's access to modern energy services; ? promoting energy efficiency; ? promoting regional cooperation in the field of energy; ? Ensure the availability of hydrocarbons in quality and quantity; ? ensure the financial stability of the energy sector.
Law 014-2017/AN	2017	Law on the general regulation of the energy sector.
Sectoral Policy "Industrial and Artisanal Transformations (TIA)"	2018 - 2027	Considering the challenges facing the sector, the vision adopted for the "industrial and artisanal processing" sectoral policy is as follows "By 2027, Burkina Faso will have an efficient and modern secondary sector, supported by a diversified and competitive industrial and artisanal fabric that will generate sustainable growth and decent jobs. In this respect, its overall objective is to make the industrial and artisanal sector competitive, a creator of high added value and decent jobs.
Strategic Plan for the Development of the Energy Sector	2017	Describes the situation of the energy sector and the investment plan for production-transport-distribution and rural electrification
Burkina Faso/World Bank COVID-19 Preparedness and Response Project	2020	The purpose of the Project is to prevent, detect and respond to the threat posed by COVID-19 (Coronavirus) and strengthen national systems for public health preparedness including health system strengthening with electricity.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

A whole project component (Component 4) is dedicated to knowledge management and related activities. Entitled, Data, Knowledge Management and Monitoring and Evaluation, this component is focused on supporting and facilitating knowledge generation, dissemination and management and information sharing between the regional program and national child project, within the program's community of practice, as well as broader information sharing amongst the larger minigrid community. Also, a monitoring and

evaluation framework will be developed against which GHG emission reductions, and broader impact on the SDGs, can be measured, and will work closely with national child projects to ensure operationalization and harmonization. A common M&E framework with SMART indicators will ensure that the program is able to track progress toward its overarching objective. Several working groups organized around the program's main thematic areas (policies, private sector and financing) will be established and will convene regularly, with an emphasis on South-South cooperation, and minigrid cost reduction. Particular attention will be given to private sector engagement, encouraging their active participation in working groups, in order to collect inputs for project implementation and to inform government action. The program will also support national child projects to carry out lessons learned studies that will be used to develop replication plans for scaling up minigrid investments in each participating country.

This involves developing and disseminating knowledge products that provide guidance and share good practice regarding minigrid cost-reduction. The development of tools will be demand-driven, based on surveys of stakeholder needs. Emphasis will be placed on accessible, user-friendly tools that can be applicable in a wide range of contexts. Activities will include collecting and analyzing good practices around minigrid cost-reduction in a variety of regulatory environments, researching and developing tools (e.g., policy briefs, template tender documents, and guidelines) on productive use program designs to reduce cost. These tools will be made widely available to various market actors. At the regional level, this will draw from and build on RMI and UNDP's innovative research and experience in minigrids. These toolkits will support both the public sector (e.g. rural electrification agencies) and the private sector (e.g. minigrid developers) and the overall minigrid market. Market-oriented outputs will be emphasized, in order to reflect the needs of developers and investors to accelerate market growth while ensuring additionality relative to other minigrid knowledge tools.

To this end, specific outputs have been developed for national projects to effectively link up to the regional project

- ? **Output 4.5:** Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt.
- ? **Output 4.6:** Knowledge networks / Communities of Practice / industry associations / Other strengthened to promote minigrids development / rural energy access
- ? **Output 4.7:** Lessons learned captured and disseminated at all levels
- ? **Output 4.8:** Replication plan (including investment plan) for scaling up rural energy access developed.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored annually and evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. The Monitoring Plan included in Annex details the roles, responsibilities, and frequency of monitoring project results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). The UNDP Country Office is responsible for ensuring full compliance with all UNDP project monitoring, quality assurance, risk management, and evaluation requirements.

Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the [GEF Monitoring Policy](#) and the [GEF Evaluation Policy](#) and other [relevant GEF policies](#)[1]. The costed M&E plan included below, and the Monitoring plan in Annex, will guide the GEF-specific M&E activities to be undertaken by this project.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

Additional GEF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within 60 days of project CEO endorsement, with the aim to:

- a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
- b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
- c. Review the results framework and monitoring plan.
- d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
- e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
- f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
- g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.
- h. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR

submitted to the GEF will be shared with the Project Board. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

GEF Core Indicators:

The GEF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to the TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with TE consultants prior to required evaluation missions, so these can be used for subsequent groundtruthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF [website](#).

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the [UNDP Evaluation Resource Center](#).

The evaluation will be "independent, impartial and rigorous". The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by 1 June 2025. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion.

Final Report:

The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[2] and the GEF policy on public involvement[3].

Monitoring and Evaluation Plan and Budget:

This M&E plan and budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are included in Component 4 of the Results Framework and TBWP. For ease of reporting M&E costs, please include all costs reported in the M&E plan under the one technical component. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units are not included as these are covered by the GEF Fee.

GEF M&E requirements	Indicative costs (US\$)	GEF (US\$)	UNDP (US\$)	Time frame
Inception Workshop	4,000	4,000	0	Within 60 days of CEO endorsement of this project.
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	\$3,500 per year for 4 years	0	14,000	Annually before the GEF PIR and at mid-point and closure. This result framework will include GEF core indicators.
Preparation of the annual GEF Project Implementation Report (PIR)	\$2,000 per year for 3 years	0	6,000	Annually typically between June-August
Monitoring of stakeholders engagement plan; gender action plan and individual peoples? plan	None	0	0	Throughout the project
Supervision missions	None	0	0	Annually
Learning missions	None	0	0	As needed
Independent Mid-term Review (MTR)	55,000	15,000	40,000	01-Feb-24
Independent Terminal Evaluation (TE)	55,000	15,000	40,000	01-Nov-25
TOTAL indicative costs	134,000	34,000	100,000	Add to TBWP Component 4

[1] See https://www.thegef.org/gef/policies_guidelines

[2] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

[3] See https://www.thegef.org/gef/policies_guidelines

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

When the underlying investment risks are mitigated through the project's cost-reduction levers and innovative business models, it will result in competitiveness and financial viability of renewable energy minigrids, which will have considerable socioeconomic effect directly and through ripple effects both the national and local level.

The capacity building activities and policy and regulatory outputs under component 1 will benefit all people living in Burkina Faso at large and also those living in the projects target rural communities.

The socioeconomic benefits of the project are considerable at both the national and local level. Increased access to sustainable energy from low carbon minigrids will impact agriculture, one of Burkina Faso's main economic sectors. The country's economy is predominantly dependent on the agricultural sector, which accounts for roughly 40% of GDP. The sector employs 75% of the total population while over 80% of the rural population depend mainly on small-scale subsistence farming as their main source for sustenance and revenues. The sector is however, characterized by low productivity owing to the fact it is mostly rain-fed, thus highly subject to adverse impacts of climate change such as erratic rainy seasons, variable rainfalls, floods, droughts, bush fires and other extreme events. Under component 2.1, both pilot projects will address productive uses, mainly the agriculture value-chain (production and post-harvest) through irrigation and electricity for food storage and processing.

The primary targets and actors of the pilot projects will be small scale farmers (women and youth, mostly) who will benefit directly from the electricity supplied by the solar minigrids. As explained in the development challenge section, poor rural populations, of which over 80% are active in the agricultural sector, are faced with problems of accessibility, cost, sustainability and quality of power supply as well as difficulties in accessing financing for the acquisition of efficient productive equipment. This results in high-post harvest losses in value-chains such as mango, horticulture, milk, rice, sorghum, fish, meat, etc. due to lack of electricity.

As the PPG phase took place in the midst of the COVID-19 pandemic, it became also apparent that a key additional objective of the pilot projects would be to contribute to the GoBF's COVID-19 response and recovery, and to increase the resilience of vulnerable populations. The pilot project, by focusing on productive use of renewable energy for agriculture, SMEs and health facilities, will support Burkina Faso's COVID-19 response and recovery efforts. In particular, the most vulnerable populations (women, youth, smallholder farmers, etc.) will be supported to recover from the dire socio-economic impacts of the pandemic and to build their resilience to futures shocks (climate, sanitary, etc.). As such, the pilots have been designed in such a way that they will present the following characteristics:

- ? Support green recovery including investments in sustainable, inclusive, resilient, low-carbon, low-polluting, nature positive and circular economy-based pathways for poor communities to withstand future shocks coming from climate change, natural and manmade disasters, and other global challenges.

- ? Support climate change adaptation projects through resilient livelihoods and infrastructure to support green recovery and future resilience.
- ? Enhance engagement of the private sector as well as opportunities for accelerating low-carbon businesses thereby offering a pathway toward green recovery efforts.
- ? Build the resilience of small vulnerable rural communities through solar PV minigrids in a market-based approach.
- ? Support gender mainstreaming where women's specific needs are taken into consideration. More importantly, women and other vulnerable groups will be involved /trained

When solar minigrids with storage become more competitive against diesel-based alternatives, this will crowd-in private investment, thus ushering in various development benefits such as: increased investment, GHG emission reductions, increased rural electrification for poor rural communities, lower tariffs for end-users, etc.

The implementation of the various outputs will benefit a high number of people and institutions that are important to Burkina Faso's socioeconomic growth:

11,033 direct beneficiaries (5,516 male beneficiaries and 5,517 female beneficiaries);

10,639 residential beneficiaries (individuals);

260 people (commercial);

134 people (social)

70 primary jobs in minigrid development (women 25 and men 45)

20 primary jobs created in minigrids operation (women 10 and men 10)

400 primary jobs in productive use (women 260 and men 140)

From a gender equity perspective, the project will fully support the socio-economic development of vulnerable populations such as women, youth and small-holder farmers. The gender strategy will consist of targeting women and youth-led income generating activities (vegetable farms, processing of peanuts, shea, sesame, forest fruits) and SMEs led by youth grinding, milling, internet shops..

The overall program is expected to mitigate about 14,383 direct tCO_{2e} and 747,000 indirect tCO_{2e}. The emission reductions will emanate from pilot project investments (Output 2.1) and indirect emission mitigation, from creating a general enabled investment environment, and subsequent investment flows.

Moreover, **significant indirect emission mitigation** is expected from the project over its 4-year implementation timeframe and with a further 10-year post-project period.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

There are 21 potential risks have been identified for this project, 9 are assessed as MODERATE and 12 are Substantial so the overall risk is Substantial. More detail is provided in SESP document.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
ANNEX 10 - ESMF for 10 UNDP AMP Child Projects_06Oct2021_clean (2)	CEO Endorsement ESS	

Title	Module	Submitted
PMIS 6510 ANNEX_06-SESP - BURKINA FASO_2021-09- 17_clean	CEO Endorsement ESS	
PMIS 6510 ANNEX_06-SESP - BURKINA FASO_clean and cleared	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

This project will contribute to the following Sustainable Development Goal (s):

- ? SDG7: Ensure access to affordable, reliable, sustainable and modern energy for all.
 - o SDG 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services;
 - o SDG 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix.
- ? SDG13: Take urgent action to combat climate change and its impacts.
- ? SDG5: Achieve gender equality and empower all women and girls.

This project will also contribute to the following SDGs goals: SDG 1, SDG2, SDG3, SDG4, SDG6, SDG8, SDG9, SDG10, SDG 11, and SDG 12.

This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD):

UNDAF Pillar 3: Sustainable inclusive growth, decent jobs and food security

CPD identified national priority or goal and cooperation framework outcome involving UNDP:

Echoing the UNDAF with the goal to: Revitalize Productive Sector and Stimulate Employment Creation. Outcome 3.2: By the end of 2020, populations, especially young people and women in intervention areas (urban/rural), increase their income, adopt sustainable production and consumption patterns, and improve their food security.

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target
Project Objective: Supporting access to clean energy by increasing the financial viability, and promoting scaled-up	<i>Mandatory GEF Core Indicator 1: Greenhouse gas emissions mitigated (metric tons of carbon dioxide equivalent (CO2eq)[1]</i>	0	0 direct 0 indirect	14,353 direct 495,000 indirect

commercial investment, in RE minigrids in Burkina Faso with a focus on cost-reduction levers and innovative business models.	<p><u>Mandatory GEF Core Indicator 2: Number of direct beneficiaries benefitting from clean, affordable and sustainable energy access via minigrids, disaggregated by gender and customer segment (residential, commercial and social) (number of people)</u></p>	<p>0 direct beneficiaries;</p> <p>0 male beneficiaries;</p> <p>0 female beneficiaries;</p> <p>0 residential (households; individuals);</p> <p>0 commercial (businesses);</p> <p>0 social (e.g., schools, health centers).</p>	<p>0 direct beneficiaries;</p> <p>0 male beneficiaries;</p> <p>0 female beneficiaries;</p> <p>0 residential (households; individuals);</p> <p>0 commercial (businesses);</p> <p>0 social (e.g., schools, health centers).</p>	<p>5,564 direct beneficiaries;</p> <p>2,782 male beneficiaries;</p> <p>2,782 female beneficiaries;</p> <p>5,310 residential (households; individuals);</p> <p>169 commercial (businesses);</p> <p>85 social (e.g., schools, health centers).</p>
	<p><u>GEF Core Indicator 3:</u> Increase in installed renewable energy capacity per technology (Megawatt peak (MW))</p>	<p>0</p>	<p>0 MW (solar PV)</p> <p>0 MWh (storage)</p>	<p>0.4 MW (solar PV)</p> <p>1 MWh (storage)</p>
	<p><u>Objective Level Indicator 4:</u> Number of direct primary jobs created in the MG sector, disaggregated by gender, for [minigrid development, operation and productive use].</p>	<p>0 primary jobs in minigrid development</p> <p>0 primary jobs in minigrid operation</p> <p>0 primary jobs in productive use</p>	<p>0 primary jobs in minigrid development</p> <p>0 primary jobs created in minigrids operation</p> <p>0 primary jobs in productive use</p>	<p>70 primary jobs in minigrid development (women 25 and men 45)</p> <p>20 primary jobs created in minigrids operation (10 women and 10 men)</p> <p>400 primary jobs in productive use (women 260 and men 140)</p>

Project Component 1	Policy and Regulation			
<p>Outcome 1</p> <p>Stakeholder ownership in a national minigrid delivery model is advanced, and] appropriate policies and regulations are adopted to address barriers and facilitate investment in RE minigrids with storage.</p>	<p><i>Indicator 5:</i> Number of policy derisking instruments for minigrid investments - whose development has been supported by the project - identified and endorsed by the national government</p>	<p><i>0 policy derisking instruments for RE minigrids investment (tariffs, customs, standards, financial incentives, etc.) identified and endorsed by the national government</i></p>	<p><i>1 policy derisking instruments for RE minigrids investment (tariffs, customs, standards, financial incentives, etc.) identified and endorsed by the national government</i></p>	<p><i>2 policy derisking instruments for RE minigrids investment (tariffs, customs, standards, financial incentives, etc.) identified and endorsed by the national government</i></p>
	<p><i>Indicator 6:</i> A minigrid delivery model to enable minigrid development is endorsed/adopted by the national government through a consultative process involving key stakeholders (e.g. relevant ministries, local authorities, rural populations, private sector, media, etc.)</p>	<p><i>0</i></p>	<p><i>Multi-stakeholder, national dialogue platform on minigrid delivery models established and active.</i></p>	<p><i>At least one minigrid delivery model is identified and endorsed by the government through the work of the multi-stakeholder platform and dialogue.</i></p>

	<p><i>Indicator 7: Number of trainings held for institutional (ABER, ARSE, ANEREE, ABNORM, IRSAT, 2IE, etc.) and private sector stakeholders such as industry associations, etc.</i></p>	<p>0</p>	<p><i>Planned capacity building activities for year 1 and 2 are implemented. (1)</i></p> <p><i>The capacity of targeted recipients is assessed by survey towards the end of year 2. On a scale of 1 to 5, an average score of at least 2 is achieved.</i></p> <p><i>- 1 represents a low level of capacity</i></p> <p><i>- 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions. (1)</i></p>	<p><i>Planned capacity building activities for year 3 and 4 are implemented. (1)</i></p> <p><i>The capacity of targeted recipients is assessed by survey towards the end of the project. On a scale of 1 to 5, an average score of at least 4 is achieved.</i></p> <p><i>- 1 represents a low level of capacity</i></p> <p><i>- 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions. (1)</i></p>

Outputs to achieve Outcome 1	<p>1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification</p> <p>1.2. Formulation of rural electrification strategy/plan, incorporating transparent targets and supported by multi-tier data</p> <p>1.3. Domestication of quality standards for solar minigrid components, and institutional capacity of national standards organizations/bureau strengthened</p> <p>1.4. Capacity building of the regulator ARSE to fully play its role (tariffs, etc.) vis-?-vis texts emanating from the Energy Law</p> <p>1.5. Establishing / Operationalizing a certification scheme for minigrids installers building on ECREEE's Regional Certification Scheme</p> <p>1.6. Minigrid DREI techno-economic analyses carried out to propose most cost-effective basket of policy and financial derisking instruments and contribute to AMP Flagship Report on Cost Reduction</p>			
Project Component 2	Business Model Innovation with Private Sector Engagement			
Outcome 2 Innovative business models based on cost reduction operationalized, with strengthened private sector participation in RE minigrid development	<i>Indicator 9: RE minigrid pilots implemented that demonstrate a delivery model, cost-reduction measure(s) and/or productive use of electricity</i>	0	<i>The project's detailed design plan (the ?Minigrid Pilot Plan?) for advancing the minigrid pilots is developed, and cleared by UNDP. (1)</i> <i>Any project tendering process, as applicable, for minigrid pilots is launched. (1)</i>	<i>100% of the planned minigrid pilots, as identified in the project's Minigrid Pilot Plan, are commissioned. (1)</i>

	<p><i>Indicator 10: Capacity of minigrid developers and/or operators is enhanced to implement innovative business models and incorporate cost-reduction levers in minigrid projects.</i></p>	<p><i>No capacity building done.</i></p>	<p><i>Information disseminated and awareness raised (2 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i></p>	<p><i>Institutional/human capacity strengthened for potential developers (4 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i></p>
<p>Outputs to achieve Outcome 2</p>	<p>2.1. Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids (in regions complementing WB and AfDB investments).</p> <p>2.2. Capacity of winning tender bidders / new COPELs and private sector actors (industry associations such as APER and others) strengthened to develop and implement innovative business models and cost-reduction levers.</p> <p>2.3. Support provided to establish and grow a national industry association for private sector developers</p>			
<p>Project Component 3</p>	<p>Scaled-up financing</p>			
<p>Outcome 3</p> <p>Financial sector actors are ready to invest in a pipeline of RE minigrids and concessional</p>	<p><i>Indicator 11: Number of market intelligence survey by regions.</i></p>	<p><i>0</i></p>	<p><i>2 targeted market intelligence surveys /assessment to highlight market opportunity and potential for investment</i></p>	<p><i>5 targeted market intelligence surveys /assessment to highlight market opportunity and potential for investment</i></p>

financial mechanisms are in place to incentivize scaled-up investment.	<i>Indicator 12: Capacity of financial institutions is enhanced through training, knowledge sharing, and/or awareness raising events aimed at increasing the financial sector's capacity to evaluate investments in MG</i>	0	<i>Information disseminated and awareness raised (2 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i>	<i>Institutional/human capacity strengthened for potential developers (4 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i>
	<i>Indicator 13: Capacity of mini-grid developers is enhanced to access finance to meet their capital requirements, contributing to a pipeline of minigrid investment opportunities.</i>	0	<i>Information disseminated and awareness raised (2 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i>	<i>Institutional/human capacity strengthened for potential developers (4 out of a possible scale of 5 where 0 represents no capacity and 5 represents a strong capacity to understand relevant issues and apply knowledge and skills to find effective solutions).</i>

<p>Outputs to achieve Outcome 3</p>	<p>3.1. Domestic financial sector capacity-building on business and financing models for minigrids</p> <p>3.2. General market intelligence study on minigrids in regions complementary to WB and AfDB investments prepared and disseminated amongst public officials and finance community</p> <p>3.3. Support the development and implementation of innovative financial instruments for both supply and demand side (consumers and service providers) to facilitate investment in and viability of minigrids</p> <p>3.4. Feasibility study support provided to minigrid developers, creating a pipeline of investible assets</p> <p>3.5: Capacity building provided to minigrid developers and investors on measuring and reporting on impact indicators, building credibility in impact investment as an asset class</p>			
<p>Project Component 4</p>	<p>Digital, Knowledge Management and Monitoring and Evaluation</p>			
<p>Outcome 4</p> <p>Digitalization and data mainstreamed, across stakeholders, into local minigrid market development. Increased awareness and network opportunities in the minigrid market and among stakeholders, and lessons</p>	<p><i>Indicator 14:</i> A digital strategy for the project is prepared and implemented by the Project Management Unit (PMU) to contribute to project implementation and local minigrid market development</p>	<p>0</p>	<p><i>The project digital strategy is developed and being implemented</i></p>	<p><i>The project digital strategy is implemented</i></p> <p><i>Recommendations for rolling out digital solutions for minigrids at national level have been shared with key national stakeholders. (1)</i></p>
	<p><i>Indicator 15:</i> Number of M&E frameworks and platforms created and adopted and applied for tracking SDG impacts and GHG emission reductions</p>	<p>0</p>	<p><i>1 M&E framework</i></p>	<p><i>1 M&E framework</i></p>

<p>learned for scaling up rural electrification using solar PV-battery minigrids.</p>	<p><i>Indicator 16: Number of minigrid pilots sharing data on minigrid performance with the regional project and other stakeholders following best practices and guidance provided by the AMP Regional Project</i></p>	<p>0</p>	<p><i>The project's digital & data management platform? is procured and operational, ready for data collection from the project's mini-grid pilot(s), and for data sharing with the AMP regional project's digital platform. (1)</i></p>	<p><i>100% of the planned minigrid pilots, as identified in the project's Minigrid Pilot Plan, are collecting and sharing data with the AMP Regional Project at least on a quarterly basis using the project's digital & data management platform?. (1)</i></p>
<p>Outputs to achieve Outcome 4</p>	<p>4.1: A digital strategy is developed and implemented, including linkages to and following guidance from the regional project</p> <p>4.2: Minigrids data management platform implemented to run tenders and manage data from pilots, and to support minigrids scale-up and cost-reduction</p> <p>4.3: A Quality Assurance and Monitoring Framework for measuring, reporting and verification of the sustainable development impacts of all minigrids pilots supported, including GHG emission reductions, is adopted and operationalized based on standardized guidance from the regional project</p> <p>4.4: M&E and Reporting, including (i) Conducting inception workshop and preparing report, (ii) Ongoing M&E, (iii) Mid Term Evaluation and (iv) Terminal Evaluation</p> <p>4.5: Engage with regional project, including, but not limited to, via (i) participating in Communities of Practice and (ii) capturing and sharing lessons learnt.</p> <p>4.6: Knowledge networks / Communities of Practice / industry associations / Other strengthened to promote minigrids development</p> <p>4.7: Lessons learned captured and disseminated at all levels</p> <p>4.8: Replication plan (including investment plan) for scaling up rural energy access developed</p>			

[1] At the AMP regional project, 10% of the indirect GHG impacts calculated at the Burkina Faso project level are allocated to the regional child project, in line with the apportioning of the overall

program budget. This reflects the benefits of national projects accessing the regional project's support. To avoid double counting, this 10% is removed from the indirect totals for the Burkina Faso project.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Compilation of Comments submitted by Council Members of the GEF December 2019, Work Program. Regional project, GEF 7 Africa Mini-grids Program, UNDP (GEF Program Financing: \$24,235,308) (GEF ID: 1043).

Table 1: Council Comments and Responses

Comment & Response	Reference
Council Comments (Germany):	

Comment & Response	Reference
<p><u>1. Comment:</u></p> <p><i>"Germany requests that the risk and co-financing sections of the document are revised to provide more information about how the project implementers intend to mobilize the proposed finance and what alternatives will be pursued in the event of delays or changes to the indicative funds. With around 344 Mio. USD, provided by 51 financiers, a well-managed and guaranteed flow of co-financing will be crucial to the project's success. However, at this stage, co-financing sources and amounts are still indicative, thereby giving no assurance that finances will be made available."</i></p> <p><u>Response:</u></p> <p>Indeed, co-financing and partnerships with the private sector and capital providers will be critical to the program's success. During the PPG phase, discussions with co-financiers have been deepened and formalized. Details on this have been captured on this in both the CEO endorsement requests and project document.</p> <p>Measures to ensure that co-financing materializes will be addressed as follows, at the regional project and national project level:</p> <p><u>Regional project measures:</u></p> <p>(i) The AMP regional project will, as part of its monitoring activities under Component 5, track overall co-financing for the program, including co-financing for the regional project as well as for national projects. As per the regional project's Stakeholder Action Plan (Annex 8), the regional project will be in a position to identify new sources of co-financing as a mitigation action for any of the sources confirmed at CEO Endorsement stage that do not materialize during implementation.</p> <p>(ii) UNDP is part of the Minigrad Funders Group (MGF), which represents the main donors and development agencies active in minigrads, which will provide a mechanism to coordinate with other key funders in the minigrads sector.</p> <p>(iii) UNDP's oversight team for the regional project, and the regional project's PMU, will monitor the realization of co-financing on an annual basis in the GEF PIR, and in the mid-term and terminal evaluation.</p> <p>(iv) The regional project's Board is tasked in its TOR with tracking and monitoring co-financing.</p> <p> </p> <p><u>Burkina Faso national project measures:</u></p> <p>(i) AMP Burkina Faso has ensured through a in-depth engagement with co-financiers that projects activities are aligned in terms of implementation timeline overlap and activities budgeted and planned. Most co-financing in the form of investment mobilized have already been contracted with the co-financiers. As a result, the risk of not mobilizing the expected co-financings is low.</p> <p>(ii) UNDP's Country Office, and the national project's PMU, will monitor the realization of co-financing on an annual basis in the GEF PIR, and in the mid-term and terminal evaluation.</p> <p>(iii) The national project's Board is tasked in its TOR with tracking and monitoring co-financing.</p>	<p>Burkina Faso CEO endorsement request: Burkina Faso national project document: - PIMS 6510 AMP</p> <p>Regional project document: Section IV. RESULTS AND PARTNERSHIPS: - Description of Component 5); - Key Risks (Table 9)</p> <p>Burkina Faso national project document: - Table 12</p>

Comment & Response	Reference
<p>2. Comment:</p> <p><i>"Germany requests clear identification of relevant stakeholders for all countries and all program components, including regional and national agencies, technical stakeholders (implementation phase), strategic partners and relevant companies for e.g. capacity building. The program includes 11 African countries and numerous stakeholders. For some countries, relevant ministries and relevant technical implementation partners have been appointed, for others not."</i></p> <p>Response:</p> <p>All relevant stakeholders have been identified for Burkina Faso and included in the project document's comprehensive Stakeholder Engagement Plan.</p> <p>Stakeholders identified as partners and potential partners are also highlighted in project document, Table 10 and Table 11.</p> <p>The Executing Agency for Burkina Faso has been identified as Burkina Faso Rural Electrification Agency (ABER).</p>	<p>Burkina Faso CEO endorsement/ approval request document: - (Part II, Section 6 - Institutional Arrangement and Coordination)</p> <p>Burkina Faso Project document: - Table 10 - Table 11</p>

Comment & Response	Reference
<p>3. Comment:</p> <p>"Germany requests a breakdown of component 2 activities, including more details on the project approach under Component 2. A large part of the program?s allocated funding is for investments in this component (49% of total budget). However, the activities in this component are not sufficiently described. Given the importance to the project outcomes, Germany would also recommend further describing how project activities contribute to the project?s overall theory of change."</p> <p>Response:</p> <p>Burkina Faso National project:</p> <p>Component 2 activities, which include GEF INV for minigridd pilots, for the AMP in Burkina Faso are comprehensively described in the project document, Section IV, RESULTS AND PARTNERSHIPS.</p> <p>The contribution of the respective components to the national project?s theory of change has been detailed in the project document Section III, strategy, immediately following the TOC diagram.</p> <p>Regional project.</p> <p>At the program level, the contribution of minigridd investment pilots to the program?s overall TOC has been further explained in the Strategy Section of the AMP Regional project document as follows:</p> <p><i>?Minigridd investment pilots contribution to the Program?s TOC: National Projects include funds, under Component 2 (Business model innovation and private sector), for supporting minigridd investment pilots seeking to demonstrate innovative business models and cost-reduction opportunities. Minigridd pilots have a key role within AMP by contributing to demonstrate cost-reduction which can be leveraged to improve the financial viability of renewable energy minigridds. Minigridd pilots are aligned with one or more of the three key areas of opportunity mentioned above by demonstrating: (i) a particular delivery model or elements of a delivery model around which the government wishes to build capacity and engage with minigridd developers; (ii) productive uses of electricity and their potential to reduce costs and enable minigridd development at scale; and/or (iii) opportunities around digitalization and the use of data for minigridd cost reduction. Feedback loops to other national project activities (e.g. national dialogues, capacity building) and with the AMP Regional Project (e.g. Community of Practice) are intended to actively disseminate the learnings from the pilots to inform both the policy and regulatory environment as well technical capacity building.?</i></p>	<p>Burkina Faso National project document: Section IV. RESULTS AND PARTNERSHIPS - Component 2 description</p> <p>Burkina Faso National project Document: Section III. STRATEGY</p> <p>Regional Project Document: Section III. STRATEGY</p>

Comment & Response	Reference
<p>4. Comment:</p> <p><i>"Experiences with implementing mini-grids in Africa have proven that high financial costs are linked to high financial risks in local markets. The proposal considers the risk, but Germany recommends that special attention should be given to financial risk reduction and risk-hedging approaches. The risk section should be revised accordingly.</i></p> <p><i>The lack of skilled technical staff is a further risk that requires greater consideration. Germany recommends a greater focus on capacity building for skilled technicians."</i></p> <p>Response:</p> <p>Effectively and efficiently addressing investment risks will be key to transforming local minigrid markets. AMP's design - both at national and regional project levels - will use UNDP's innovative Derisking Renewable Energy Investment (DREI) framework to identify, quantify and then target the underlying risks that are driving high financing, investment and operation costs. The DREI framework facilitates selection from a menu of possible policy and financial derisking instruments which can then reduce, transfer or compensate for these risks. Following the performance of a DREI techno-economic analyses in Burkina Faso in year 1, in Output 1.6, findings can then shape follow-on project and partner activities. Lessons learnt at national level in each country will be aggregated into regional knowledge products by the AMP Regional Project and disseminated widely.</p> <p>AMP Burkina Faso project is addressing capacity building for skilled technicians through several targeted activities included in Output 1.5. Establishing / Operationalizing a certification scheme for minigrids installers building on ECREEE's Regional Certification Scheme, which will work with training centers, incubators and testing centers to build and assess the capacity of technical staff.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS ? Description of Component I</p>
<p>Council Comments (Norway/Denmark):</p>	
<p>5. Comment:</p> <p><i>"USD 1,303,576 is budgeted for Program Management Cost (i.e. ca. 5%) presumably for implementing the various components"</i></p> <p>Response:</p> <p>Comment targeted at program level and addressed in the regional project response. Details of the Burkina Faso AMP co-financing, fees and Project Management Costs are included in the documents.</p>	<p>Burkina Faso National project Document: Section VIII and Section IX</p>

Comment & Response	Reference
<p>6. Comment:</p> <p>"USD 2,181,178 in addition is requested from the UNDP, i.e. ca. 8.3% - is this on top of the fee above? "</p> <p>Response:</p> <p>Comment targeted at program level and addressed in the regional project response. Details of the Burkina Faso AMP co-financing, fees and Project Management Costs are included in the documents.</p>	<p>Burkina Faso National project Document: Section VIII and Section IX</p>
<p>7. Comment:</p> <p>"Estimated co-financing is USD 344,310,000 ? of this only about USD 95 mill is loans (from WB, GCF, AfDB and GIZ), or ca. 28%. This is to be expected as there are still not strong business models for mini-grids without significant grant financing. "</p> <p>Response:</p> <p>Agreed. Minigrids still require grant financing and concessional lending which is why the co-financing sources identified for AMP include a mix of grants and loans with loans representing a smaller fraction of the total co-financing.</p>	
<p>8. Comment:</p> <p>"Output 2.1 stipulates that ?Pilots developed, including on productive use/innovative appliances and modular hardware/system design, leading to cost-reduction in mini-grids? ? are there not a lot of lessons that can be gained from existing mini-grid programs now?"</p> <p>Response:</p> <p>While the program builds on lessons learned from previous projects and programs, minigrid markets in many countries overall remain immature, and there is a strong need for continued piloting of minigrids. The emphasis for minigrid pilots (Output 2.1) will be on piloting and showing proof-of-concept business models.</p> <p>To provide a better recount of lessons learned the program builds off from, a section on lessons learned has been added to regional project document, section III Strategy.</p>	<p>Regional Project Document: Section III. STRATEGY</p>

Comment & Response	Reference
<p>9. Comment:</p> <p>"Output 3.3 ?General market intelligence study on mini-grids prepared and disseminated amongst public officials and finance community? ? how will this be different from existing market intelligence, for example:</p> <p>o https://www.esmap.org/mini_grids_for_half_a_billion_people</p> <p>o https://eepafrica.org/wpcontent/uploads/EEP_MiniGrids_Study_DigitalVersion.pdf</p> <p>o https://www.reeep.org/mini-grid-development-africa</p> <p>There is also at least one existing ?community of practice?:</p> <p>o http://ledsgp.org/community/africa-mini-grids-community-ofpractice/?loclang=en_gb</p> <p>Similarly, how will the knowledge tools (4.1) be different from/build on others?"</p> <p>Response:</p> <p><u>National Market Intelligence Studies.</u></p> <p>In Burkina Faso, this output 3.2 ?General market intelligence study on minigrids prepared and disseminated amongst public officials and finance community? is intended to complement existing local market intelligence on minigrid opportunities in an effort to improve the financial sector?s understanding of and familiarity with the minigrid business opportunity, its risks and challenges. In particular, a complementarity will be sought with ongoing investments from AfDB and World Bank in the minigrid sector in the country, and corresponding market intelligence studies. This complementarity will be sought in terms of geographic areas of focus, but also in terms of thematic areas within the minigrid sector. The market intelligence study through the AMP project will put forward innovations in terms of technology and business models around productive use and private sector involvement, which may not be the focus of other market intelligence studies.</p> <p> </p> <p><u>Regional project: Knowledge tools</u></p> <p>Comment targeted at program level and addressed in the regional project response.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS ? Description of Component 3</p>

Comment & Response	Reference
<p>10. Comment:</p> <p><i>"How will the implementers ensure that markets are not undermined? There are currently several mini-grids invested in by commercial actors (e.g. Norfund in Madagascar - https://www.norfund.no/newsarchive/lighting-up-madagascar) and the program should provide assurances that it will not undermine markets through (overly) subsidized new mini-grids (e.g. if a few villages are connected to a mini-grid which has been commercially invested in and pay a relatively high tariff, it can lead to discontent if another few nearby villages are connected to a new mini-grid that due to a higher level of grant financing pay a lower tariff)."</i></p> <p>Response:</p> <p><u>Risk of overly subsidization of new minigrids.</u></p> <p>In order to risk any over subsidization, the level of subsidy that will be applied to GEF Investment (INV) funds will be based on a minimum concessionality principle. This principle can be achieved methodologically in different ways, for example by ensuring LCOE parity with a reference tariff; or based on willingness/ability to pay (which may be determined by a study during implementation). Such methodological assessments will be part of an overall package of financial due diligence/assessments that will be performed during the tender process to select recipients of pilot support.</p> <p>Each project's CEO endorsement/approval request document (and UNDP Project Document) elaborates on this principle and establishes the need for each national project to develop, in close collaboration with other stakeholders and support from the AMP Regional Project, a detailed project plan (the project's Minigrid Pilot Plan) for advancing the minigrid pilot(s). Among other key aspects, the project's Minigrid Plan Pilot Plan will determine the project's approach to ensure minimal concessionality for the level of GEF INV support to the pilot(s). The project's Minigrid Pilot Plan will first be reviewed for clearance by UNDP (CO and BPPS NCE), and then shared with the Project Board.</p> <p><u>Potential social discontent on tariffs.</u></p> <p>Even when avoiding the risk of over subsidization of minigrid pilots by applying the minimum concessionality principle, there is a possibility that new minigrids have lower tariffs than existing minigrids which were developed with a lower grant element and/or in general incurred in relatively higher costs. As minigrids scale, and costs decline over time, electricity tariffs (particularly cost-reflective electricity tariffs) are expected to decline as well. As per the consultations conducted in the PPG stage in Burkina Faso, the national stakeholders understand that the AMP pilot projects will be used as a case study to support broader policy and regulatory reviews. As such, there is an acceptance of the possibility that different tariffs will be applied. In addition, the greenfield minigrid pilots will likely be implemented in areas where there are no prior existing minigrids, which will minimize this risk.</p> <p>Mitigation for this risk comes from the systematic national dialogue that national projects will promote and support under Component 1, concretely under Output 1.1. An inclusive national dialogue to identify minigrid delivery models is facilitated, clarifying priority interventions for an integrated approach to off-grid electrification. Results from activities implemented in parallel under the other outputs will loop their respective (pre-)results back into the national dialogue discussions. This will include, but not be limited to, activities which can shed light on trends and progress regarding minigrid cost reduction, and the interplay between subsidies and electricity tariffs.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS ? Description of Component 2</p> <p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS ? Description of Component 1</p>

Comment & Response	Reference
<p>Council Comments (Canada):</p>	
<p>11. Comment:</p> <p><i>"Mini-grids can have important impacts on development, including on energy access, agriculture, health and education. It would be interesting if the project could explore opportunities to make further linkages with rural development programs."</i></p> <p>Response:</p> <p>Indeed, energizing productive uses of energy in rural communities unlocks agricultural value and rural economic development that initiates a virtuous cycle of growth: increased and more predictable demand for electricity that improves the viability of minigrad operations, lowers the costs of supply and in turn improves affordability and gives more people access.</p> <p>For Burkina Faso, stakeholders, clearly requested that the pilot projects under Output 2.1 should focus on productive use of energy (PUE). This was a recurring demand given the fact that past and current minigrads in the country did not address the lack of energy for productive end-users. The use of productive end-user as anchor load for minigrads is also a cost reduction measure as the promoter has less usage and payment risk. The agriculture and mining sectors are driving the demand for energy in Burkina Faso and constitute significant opportunities for minigrad promoters. Considered a relatively new segment, productive use market dynamics are not yet well understood or investigated. Therefore, the pilot projects will target first and foremost the productive uses as anchor loads to ensure commercial viability and to lower cost and risk through demand aggregation. The two pilot projects to be implemented in Burkina Faso under Output 2.1 are both looking at promoting rural development by energizing key agricultural value chains in the target villages. The minigrads will provide energy for irrigation of farm land and also post-harvest processing (milling, grinding, etc.) and storage (cold chain) of agricultural products. Additionally, the basic public facilities such as health centers and schools will be electrified to support the provision of quality public services in the target villages, thus further fostering the socio-economic development of these rural areas.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS ? Description of Component 2</p>

Comment & Response	Reference
<p>12. Comment:</p> <p><i>"The mini-grids program has value for engagement where there are market failures, and there should be entry points for the private sector.</i></p> <p><i>The project is also well-aligned with Ethiopia's Growth and Transformation Plan and its objective of "Building Climate Resilient Green Industry" and "Expanding Energy Infrastructure and Ensuring its Quality".</i></p> <p>Response:</p> <p>We agree with this statement. AMP seeks to scale commercial and private investment in minigrids. Market failures will be identified and addressed.</p> <p>The design and activities of AMP Burkina Faso, seeks to create multiple entry points for the private sector. This includes (but is not limited to):</p> <ul style="list-style-type: none"> - Output 1.1 on national dialogues, where delivery models involving the private sector will be explored and identified. - Output 1.5 on the establishment/operationalization of a certification scheme for installers and technicians building on ECREEE's Regional Certification Scheme, which will increase the skilled workforce employable by the private sector involved in renewable energy minigrids development. - Output 1.6 on DREI techno-economic analyses, where the private sector will undergo structured interviews on their risk perceptions. - Output 2.1 on pilots, where the delivery models involving the private sector will be used and the minigrid developers selected through a transparent online bidding process. 	<p>Burkina Faso national project document: Section IV: RESULTS AND PARTNERSHIPS</p>
<p>Council Comments (United States):</p>	

Comment & Response	Reference
<p>13. Comment:</p> <p><i>"The proposal addresses social acceptance risk but offers the use of policy and financial de-risking measures as a way to reduce cost, thereby increasing social acceptance risk. It does not address the value of messaging or public promotions and education campaigns to lower that risk further. Also, the program mentions working groups, but does not elaborate on make-up of the groups or state a commitment that the working groups will include representatives from local and community consumer and user stakeholders. Reviewers suggest a mechanism to ensure these groups include consumer stakeholders, indigenous representatives, and local authorities to educate and seek input on unexpected effects or consequences of the project at the local level."</i></p> <p>Response:</p> <p>AMP Burkina Faso has considered risks arising from lack of awareness and resistance to renewable energy and minigrids in communities, among other risks driving high costs for minigrid development. Social acceptance issues are usually due to due to unfamiliarity with electricity and renewable energy sources; mis-information/perceptions and lack of awareness for mini-grid offerings; resistance from incumbent businesses (e.g., diesel-based generation) and users (e.g., SHS), which can get disrupted by minigrids.</p> <p>AMP Burkina Faso seeks to address this risk by engaging and consulting with a diverse array of stakeholders, including representatives from local and community consumer and user stakeholders as per the Stakeholder Engagement Plan (Annex 9). In addition, salient among opportunities to engage and consult with representatives from local and community consumer and user stakeholders, is the national dialogue on delivery models (Output 1.1).</p>	<p>Burkina Faso national project document: Section IV: RESULTS AND PARTNERSHIPS</p>

Comment & Response	Reference
<p>14. Comment:</p> <p><i>"Finally, the program will promote a value chain approach to technology transfers that will integrate local labor and local industries / service providers in the development of solar PV-battery minigrids. Reviewers note that monitoring the value chain periodically to ensure sufficient local integration (or make the necessary adjustments) will be important to the success of the project. GEF may want to consult with experts at the U.S. Department of Energy's Office of Electricity, which works with U.S. state and local electricity officials and industry groups, to share data and best practices"</i></p> <p>Response:</p> <p>Local labor and industries, together with local private sector developers and service providers, will be a key element in the long-term viability and sustainability of the minigrid market in Burkina Faso</p> <p>At the national project level, the inclusive national dialogue constituted as part of Output 1.1 will provide a platform for the local private sector to engage, while several other outputs such as Output 1.5 on the operationalization of a certification scheme for installers and technicians will support a sound development and capacity building of local labor in the minigrid market. The local development benefit in terms of job creation is included as Indicator 4 in the Project Results Framework. Also, the level of connectivity / energy access by type of end users (residential, commercial and social) is captured by Indicator 2 in the Results Framework. Annex 13 elaborates on the methodological approach to calculate these indicators.</p> <p>At the regional project level, component 1 "Knowledge Tools" will curate and disseminate materials and reports detailing examples of good practice in this area. The work developed by the U.S. Department of Energy's Office of Electricity, with U.S. state and local electricity officials and industry groups, is one of the resources that will be leveraged for this purpose.</p> <p>In addition, supply chain actors and the private sector are stakeholders that will participate as members of the AMP community of practice and benefit from South-South cooperation, knowledge sharing, identifying common challenges, and reviewing outputs of the AMP.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS Section V. PROJECT RESULTS FRAMEWORK; Annex 13;</p> <p>Regional Project Document: Section IV. RESULTS AND PARTNERSHIPS</p>

Table 2: STAP Comments and Responses

Comment & Response	Reference
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Comment & Response	Reference
<p>1. Comment:</p> <p>Mini-grids have much potential to bypass old development pathways for electrification. However, there is also growing literature on their pitfalls, which should be addressed. As with other GEF project proposals, more effort is needed to engage with the peer-reviewed literature on the topics. Examples of literature in this genre include:</p> <p>? Mini-Grids for the Base of the Pyramid Market: A Critical Review (https://www.mdpi.com/1996-1073/11/4/813);</p> <p>? Mini-grid based off-grid electrification to enhance electricity access in developing countries: What policies may be required? (https://www.sciencedirect.com/science/article/pii/S0301421516301781);</p> <p>? Rethinking the sustainability and institutional governance of electricity access and mini-grids: Electricity as a common pool resource (https://www.sciencedirect.com/science/article/pii/S2214629617303638);</p> <p>? Institutional Innovation in the Management of Pro-Poor Energy Access in East Africa (https://www.sussex.ac.uk/webteam/gateway/file.php?name=2015-29-swps-gollwitzer-etal.pdf&site=25).</p> <p>Response:</p> <p>The program design has been informed by extensive literature review and consultations with technical experts and development partners. This has informed (1) the overall design of the program, as well as (2) the program's three main key areas of opportunity: (i) National dialogues on minigrid delivery models; (ii) Productive use of electricity; and (iii) Data & Digitalization, and in turn been translated to national projects.</p> <p>This literature exercise review is documented in the AMP regional project document, given its overall knowledge management function for the program.</p> <p>1. Overall Program Design ? Key Literature</p> <ul style="list-style-type: none"> - GIZ, GET.transform (2020). A Renewable Energy Minigrid Technical Assistance Guide. Take-aways from 15 years of GIZ support in minigrid market development. April 2020 (link) - AMDA (2020). Benchmarking Africa's minigrids. - SEforAll, BNEF and MGP (2020). State of the Global mini-grids Market Report 2020. Trends of renewable energy hybrid mini-grids in Sub-Saharan Africa, Asia and Island Nations. (link) - IRENA (2016). Innovation Outlook: Renewable Mini-grids. (link) - ESMAP (2019). Mini Grids for half a billion people. Market Outlook and Handbook for Decision Makers. Technical Report 014/19. (link) - The World Bank, AFD (2019). Electricity Access for Sub-Saharan Africa. (link) - RMI (2018). Minigrids in the Money: Six Ways to Reduce Minigrid Costs by 60% for Rural Electrification (link) - GET.transform (2021). Nigeria Case Study: Financing Instruments for the Mini-Grid Market, (link) <p>2. Program's three key areas of opportunity</p> <p>(i) National dialogues on minigrid delivery models The AMP has</p>	<p>Regional Project Document: Section IV RESULTS AND PARTNERSHIPS, Box 2.</p>

Comment & Response	Reference
<p>2. Comment:</p> <p>Furthermore, there is considerable literature on the opportunities presented by blockchain technology for energy projects like this, including for renewable energy generation, distribution and management. STAP recommends that the project proponents explore the possibilities of using this technology to enhance the global environmental benefits of the project. Examples of relevant literature on this include:</p> <ul style="list-style-type: none"> ? STAP's blockchain paper (http://stapgef.org/harnessing-blockchain-technology-delivery-global-environmentalbenefits); ? Blockchain technology in the energy sector (https://www.sciencedirect.com/science/article/pii/S1364032118307184); ? Blockchain meets Energy (https://fsr.eui.eu/wp-content/uploads/Blockchain_meets_Energy_-_ENG.pdf); ? Blockchain: A true disruptor for the energy industry (https://www2.deloitte.com/content/dam/Deloitte/us/Documents/energy-resources/us-blockchain-disruptor-for-energy-industry.pdf). <p>Response:</p> <p>In Burkina Faso, the involvement of UNDCF as a responsible party for Component 3, which has an ongoing relevant project funded by Sida, opens the door to exploring blockchain as financing tool in the framework of AMP. Additionally, ECREEE, a responsible party for Component 1, has a partnership with OneWatt Solar, a leader in blockchain technology based in Nigeria.</p> <p>As part to the PFD addendum approved in June 2021, a new component has been added to the regional project focused on mainstreaming the use of digital tools and solutions across national child projects and other national stakeholders. This is premised upon the notion that digitalization offers great potential for minigrid cost reduction. While no specific emphasis has been placed within AMP on developing Blockchain applications, the Regional Project will knowledge-build on and identify opportunities to add value via the use of digital tools and solutions for planning, operations, financing and other key applications.</p>	<p>Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS</p>

Comment & Response	Reference
<p>3. Comment:</p> <p>A generic diagram of the theory of change for mini-grids is presented which starts with a diagnosis of risks and then proposes how to address them. However, this is linear and has only one step. There needs to be consideration of how particular kinds of policies could lead to change rather than just stating that policies will address the diagnostics. This diagram needs to be refined with more steps that unpack points like ?innovative financing? and ?business model and innovation? and ?policies and regulations.?</p> <p>Please see STAP paper on theory of change for further guidance: http://stapgef.org/theory-change-primer</p> <p>Response:</p> <p>The theory of change diagram for the program has been now further developed and refined to unpack key policies/activities under each of the four main components, which indeed feedback to address the originally identified risks. A new outcome column has also been inserted. This new theory of change is now reflected in the national project documents, as well as regional project documents.</p> <p>The theory of change has been updated in the project document for AMP Burkina Faso.</p>	<p>Burkina Faso national project document: Section III. STRATEGY</p> <p>Regional Project Document: Section III. STRATEGY</p>
<p>3. Is the objective clearly defined, and consistently related to the problem diagnosis?</p> <p>Comment:</p> <p>Yes.</p> <p>Response:</p> <p>NA</p>	
<p>4. A brief description of the planned activities. Do these support the project's objectives?</p> <p>Comment:</p> <p>Nicely described with clear objectives.</p> <p>Response:</p> <p>NA</p>	

Comment & Response	Reference
<p data-bbox="272 268 1117 327">5. A description of the expected short-term and medium-term effects of an intervention.</p> <p data-bbox="272 359 396 390">Comment:</p> <p data-bbox="272 422 610 453">These are adequately provided.</p> <p data-bbox="272 485 396 516">Response:</p> <p data-bbox="272 548 318 579">NA</p>	
<p data-bbox="272 615 1166 674">6. A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?</p> <p data-bbox="272 705 396 737">Comment:</p> <p data-bbox="272 768 509 800">Adequately provided.</p> <p data-bbox="272 831 396 863">Response:</p> <p data-bbox="272 894 318 926">NA</p>	
<p data-bbox="272 961 675 993">7. Is the baseline identified clearly?</p> <p data-bbox="272 1024 396 1056">Comment:</p> <p data-bbox="272 1087 756 1119">Baselines are linked to earlier Child projects.</p> <p data-bbox="272 1150 396 1182">Response:</p> <p data-bbox="272 1213 318 1245">NA</p>	

Comment & Response	Reference
<p>8. What is the theory of change?</p> <p>Comment:</p> <p>There is a growing literature on the barriers to minigrid adoption. As with other GEF project proposals, more effort is needed to engage with the peer-reviewed literature on the topic. An example of an article in this genre which is open source is linked here: https://www.mdpi.com/1996-1073/11/4/813</p> <p>Response:</p> <p>It is indeed critical to have a good understanding of minigrid barriers. AMP's overall approach to minigrid barriers has been informed by</p> <p>(1) UNDP's own Derisking Renewable Energy Investment (DREI) Framework for off-grid electrification (link), a leading publication in the field which identifies a taxonomy 9 investment risk and 25 investment barriers for minigrids, itself based on extensive consultations and literature review.</p> <p>(2) An independent review of recent literature on the subject, including the documents listed below:</p> <ul style="list-style-type: none"> - GIZ, GET.transform (2020). A Renewable Energy Minigrid Technical Assistance Guide. Take-aways from 15 years of GIZ support in minigrid market development. April 2020 (link) - AMDA (2020). Benchmarking Africa's minigrids. - SEforAll, BNEF and MGP (2020). State of the Global mini-grids Market Report 2020. Trends of renewable energy hybrid mini-grids in Sub-Saharan Africa, Asia and Island Nations. (link) - IRENA (2016). Innovation Outlook: Renewable Mini-grids. (link) - ESMAP (2019). Mini Grids for half a billion people. Market Outlook and Handbook for Decision Makers. Technical Report 014/19. (link) - The World Bank, AFD (2019). Electricity Access for Sub-Saharan Africa. (link) - RMI (2018). Minigrids in the Money: Six Ways to Reduce Minigrid Costs by 60% for Rural Electrification (link) - GET.transform (2021). Nigeria Case Study: Financing Instruments for the Mini-Grid Market, (link) <p>Please also see the earlier response to STAP Comment #1.</p>	<p>Regional Project Document: Section IV. RESULTS AND PARTNERSHIPS, Box 2.</p>

Comment & Response	Reference
<p data-bbox="272 268 1161 327">9. GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?</p> <p data-bbox="272 359 396 390">Comment:</p> <p data-bbox="272 422 1105 512">Cost reasoning is well defined. Monitoring and evaluation is noted adequately through the Child projects phase. The prior usefulness of these monitoring mechanisms should be reviewed.</p> <p data-bbox="272 543 396 575">Response:</p> <p data-bbox="272 606 1149 728">At a national project level monitoring and evaluation has been expanded into a Quality Assurance and Management Framework (QAMF) that will aggregate data across the program and will link to specific outputs (e.g. publications and insight briefs) and intelligence to ensure the usefulness of collected data.</p>	<p data-bbox="1209 632 1409 814">Burkina Faso national project document: Section IV. RESULTS AND PARTNERSHIPS</p>
<p data-bbox="272 854 1057 913">10. Are the benefits truly global environmental benefits, and are they measurable?</p> <p data-bbox="272 945 396 976">Comment:</p> <p data-bbox="272 1008 1156 1157">The proposal identifies carbon mitigation benefits with adequate referencing of methods. Tradeoffs are not discussed but should be, in terms of reliability, failures that can happen with mini-grids. What are the backups to prevent diesel generators from still being frequently used? Resilience needs to be built into the grid architecture to address times of power outages.</p> <p data-bbox="272 1188 396 1220">Response:</p> <p data-bbox="272 1251 1166 1526">Minigrids are generally characterised by a very high availability. A recent report by the Africa Minigrid Developers Association (Benchmarking Africa's Minigrids) shows that uptime of all monitored minigrids is 99% on average, which is significantly higher than all national interconnected grids. When power outages occur in minigrids, it is rarely due to inverter failure, but rather because the system shuts down due to overload or low battery state-of-charge (if there is no diesel generator), or because the diesel generator fails. Recent evidence is revealing that diesel generators are now more prone to failure than the renewable energy components.</p> <p data-bbox="272 1558 1161 1833">To prevent power outages, a minigrid should be sufficiently dimensioned. This can lead to larger amounts of excess energy being available at non-peak times, which cannot normally be used and reduce the overall system efficiency. Currently, new approaches are being developed that take advantage of artificial intelligence to manage loads, based on machine learning and stochastic optimization. Examples include intelligent control of diesel generators to minimise fuel consumption, demand side management to precisely control deferrable loads (e.g. water pumps) that can consume excess energy. All this leads to minimise outages and the need to use diesel generators.</p>	

Comment & Response	Reference
<p data-bbox="277 268 1133 327">11. Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?</p> <p data-bbox="277 359 396 388">Comment:</p> <p data-bbox="277 422 1175 604">Proponents have partnered with Rocky Mountain Institute which has a distinguished record of innovative approaches to energy policy and there are clear highlights of scaling out (even though they note this as scaling ?up?). There is a focus on finding innovative ways of cost reduction and also to consider financing linkages between minigrids to promote resilience following the Rockefeller Foundation?s CrossBoundary Energy Access (CBEA) investment projects.</p> <p data-bbox="277 699 396 728">Response:</p> <p data-bbox="277 760 318 789">NA</p>	
<p data-bbox="277 829 1062 888">12. Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?</p> <p data-bbox="277 919 396 949">Comment:</p> <p data-bbox="277 982 1175 1102">Adequate presentation of stakeholders through the UNF Minigrid Partnership. However, diesel generation industry is quite widespread in Africa and how to ensure they don?t sabotage prevalence of project and have incentives for new livelihoods should be considered.</p> <p data-bbox="277 1134 396 1163">Response:</p> <p data-bbox="277 1260 1187 1562">Experience shows that deep-rural villages are usually not a market for the diesel generator industry as such. In many villages, however, individual owners of diesel or petrol generators can be found selling electricity to the neighborhood(s). These business models no longer work when a minigrid supplies the village with electricity. However, there is a significant demand for skilled labor in the minigrid sector. The local diesel generator operators can become important here, as they have the technical know-how on the one hand and know the respective village very well on the other. These skills can be put to good use, for example, for the rapid establishment of PUE, or in the context of rural industrialization approaches (e.g. KMM).</p> <p data-bbox="277 1596 1187 1686">Where relevant, this risk and related mitigation actions have been added to the risks log and elaborated upon in the CEO Endorsement request/approval document (Part II section 6</p>	

Comment & Response	Reference
<p data-bbox="277 268 1182 327">13. Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?</p> <p data-bbox="277 359 396 388">Comment:</p> <p data-bbox="277 422 1029 512">Yes ? there is a fairly detailed section on gender aspects of this project. projects.</p> <p data-bbox="277 548 396 577">Response:</p> <p data-bbox="277 611 318 640">NA</p>	
<p data-bbox="277 676 1166 735">14. Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control?</p> <p data-bbox="277 766 396 795">Comment:</p> <p data-bbox="277 829 976 858">Identified. Detailed climate risk assessment should be carried out.</p> <p data-bbox="277 892 396 921">Response:</p> <p data-bbox="277 955 1182 1165">The impacts of climate change are diverse including incidence of extreme events that can be harmful to property/infrastructure and agricultural production. These can have a direct bearing on the operation and financial viability of solar PV minigrids within the energy-agriculture nexus. By embedding solar PV minigrids in agricultural value chains, the commercial viability is exposed to the credit worthiness of agricultural end users that is coupled with detrimental impacts of climate change on agricultural production. The project will address this issue in multiple ways:</p> <ul data-bbox="277 1199 1182 1535" style="list-style-type: none"> - Longitudinal data collection at project sites (Output 2.1) and the generation of market intelligence (Output 3.2) will allow for a better granular understanding of the localized impacts of climate change that is currently not available. Ground-truthing of the credit worthiness of agricultural end users will also be carried out. These information will be recorded and used in validating business models and also serve to develop scenarios of minigrids performance including the impacts of climate change on agricultural value chains; - Output 3.3 will support the implementation of financial derisking instruments in order to enhance the commercial viability of solar PV minigrids. This will cover instruments to climate-proof the financial viability of minigrids against climate impacts in agricultural value chains. 	

Comment & Response	Reference
<p>15. Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?</p> <p>Comment:</p> <p>Good coordination details provided based on historical relations as well. projects.</p> <p>Response:</p> <p>NA</p>	
<p>16. What overall approach will be taken, and what knowledge management indicators and metrics will be used?</p> <p>Comment:</p> <p>Identified and details adequately provided. projects.</p> <p>Response:</p> <p>NA</p>	

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status
in the table below:**

<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Technical assistance (design technical elements as well as all the required financial and administrative components of the project).	80,000	69,046	10,954
Total	80,000	64,046	10,954

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

The project will be implemented in Burkina Faso. The map geo-referencing the project pilot sites is provided as Figure 3: **Project Map And Geo-Coordinates Of Pilot Projects? Sites**

Equipm ent	Includes: For Output 1.3: For procurement of tools necessary for increasing capacity of target stakeholders (@ \$1,000 per year in Y1, Y2, Y3), For Output 1.4: Covers equipment and material for the testing laboratory (bought in Y1), for \$5,000 in total.	8,000						8,000	Burkina Faso Rural Electrification Agency (ABER)
Equipm ent	Includes: For Output 2.1: Procurement of minigrid and related goods and services for the two pilot projects.		236,378					236,378	Burkina Faso Rural Electrification Agency (ABER)
Equipm ent	Includes: For Output 1.4: This covers 3 computers and other IT equipment for the testing laboratory (bought in Y1), for a total of \$8,000.	8,000						8,000	Burkina Faso Rural Electrification Agency (ABER)
Equipm ent	Includes: For Output 2.3: 2 computers, 1 printers, etc. for the office @ \$2,500 in Y1.		2,500					2,500	Burkina Faso Rural Electrification Agency (ABER)
Contractual services- Company	Includes: For Output 2.1: Sub-contract to international firm/manufacturer to provide O&M @ \$6,506 for Y2 then \$3,297/year for Y3, Y4.		13,100					13,100	Burkina Faso Rural Electrification Agency (ABER)

Contractual services-Company	Includes: For Output 3.1: 3 capacity-building consulting contracts@\$5,000 each for Y1, Y2, Y3, For Output 3.2: Contractual services for market assessment exercises @ \$30,000 in Y1, For Output 3.3: Contractual services for identification of instruments; design of fund operational structure; fundraising for the financial instrument @ \$30,000 in Y3, For Output 3.4: Contractual services for the feasibility study @ \$20,000 in Y2 and \$20,000 in Y3, For Output 3.5: Contractual services for the development of the impact framework @ \$15,000 in Y3.			130,000	130,000			130,000	Burkina Faso Rural Electrification Agency (ABER)
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Contractual services-Company	Includes: For Output 4.2: Contractual services for the development of the digital platform, including training of local stakeholders @ \$45,000 in Y1 and \$10,000 in Y2, For Output 4.5: Hiring in year 2-4 of a consultant or local firm to gather data and audio-visual content (video footage, photos, etc.) on the national project subject of choice for the ?insight brief @ \$5,000 in Y2 and \$5,000 in Y4, For Output 4.6: Consultant /firm recruited to support establishment and development of of CoP in Burkina Faso @ \$3,500 in Y2 and \$3,500 in Y3, For Output 4.7: A firm is recruited to capture and support dissemination of lessons learned @ \$5,000 in Y4.				77,000	77,000		77,000	Burkina Faso Rural Electrification Agency (ABER)
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International Consultants	Includes: For Output 1.2: This covers contracting of 1 senior international consultant for 12 days (@ \$700/day) with expertise in minigrid delivery models in Y1, For Output 1.4: An international expert on quality standards for minigrids will be recruited for 20 days (@ \$700/day), including 5 days in Y1 and 15 days in Y2 to support development of quality standards and institutional capacity-building, For Output 1.5: An international expert will be recruited for 10 days (@ \$700/day), including 5 days in Y1 and 5 days in Y2 to support the operationalization of the certification scheme, For Output 1.6: An international consultant @\$700/day will be recruited for 10 days in Y4 to conduct the lightweight DREI analysis.	36,400				36,400		36,400	Burkina Faso Rural Electrification Agency (ABER)
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International Consultants	Includes: For Output 2.1: This include: \$12K for a legal consultant to support the tender and contracting process for the pilot projects in Y1; \$7,020 for a safeguards consultant in Y1.	19,020			19,020			19,020	Burkina Faso Rural Electrification Agency (ABER)
International Consultants	Includes: For Output 4.1: Consultant recruited 10 days@\$700 to develop digital strategy in Y1, For Output 4.3: Consultant recruited 10 days@\$700 to develop QAMF in Y1, For Output 4.8: 1 consultant recruited for 10 days to draft a replication and scaled-up plan in Y4 @ \$300/day.			21,000	21,000			21,000	Burkina Faso Rural Electrification Agency (ABER)

Local Consultants	Includes: For Output 1.1: \$300 per meeting x 20 meetings of the multi-stakeholder platform over 4 years, For Output 1.2: A local technical expert will be contracted for 20 days to support the international consultant in drafting a minigrid delivery strategy (@\$300/day) in Y1, For Output 1.3: A local consultant will be recruited for 20 days (8 days in Y1, 8 days in Y2, 4 days in Y3) to support the international expert in providing capacity-building trainings (@\$300/day), For Output 1.4: A national consultant will be recruited to support the international expert. This is planned to cover 20 days level of effort (@ \$300/day), including 5 days in Y1 and 15 days in Y2, For Output 1.5: A local consultant will be recruited for 10 days (@ \$300/day), including 5 days in Y1 and 5 days in Y2 to support the international consultant, For Output 1.6: A national consultant @ \$300/day will be recruited for 10 days in Y4 to support the	30,000				30,000		30,000	Burkina Faso Rural Electrification Agency (ABER)
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Local Consultants	Includes: For Output 2.2: Local expert to support elaboration and capacity-buidling in collaboration with an international expert: 10 days in Y1 and 10 days in Y2 @ \$300/day, For Output 2.3: Part-time HR to provide admin services to the Association and also adhoc consulting needs (12 days @ \$300/day for Y1 and Y2 each).		13,200			13,200			13,200	Burkina Faso Rural Electrification Agency (ABER)
Local Consultants	Includes: For Output 4.1: Local consultant to support international expert @ \$300 per day for 10 days in Y1, For Output 4.8: 10 days field work/data collection, etc. for national consultant @ \$300/day in Y4.				6,000	6,000			6,000	Burkina Faso Rural Electrification Agency (ABER)
Local Consultants	Includes: For Output 4.4: \$15,000 for national consultant for MTR in Y2 and \$15,000 for TE in Y4.					-	30,000		30,000	Burkina Faso Rural Electrification Agency (ABER)
Local Consultants	PMU staff: Admin & Finance Expert @\$1,383 for 48 months.					-		66,384	66,384	Burkina Faso Rural Electrification Agency (ABER)

<p>Training , Worksh ops, Meeting s</p>	<p>Includes: For Output 1.1: This will cover venues and related cost for for capacity-building trainings of multi-stakeholders' platform on various themes such as e-waste, tax-exemption, fundraising, delivery models, innovative minigrid technologies, etc. This line item will also cover participation of members of the Platform in workshops, when necessary (@\$1,500/year), For Output 1.2: This covers venue and related costs for 2 workshops (inception and dissemination) in Y1 during the minigrid strategy development (@\$2,500 per workshop), For Output 1.3: To cover venue and related cost for the 3 trainings @ \$2,500 per training in Y1 and Y2, and \$2,000 in Y3. - For Output 1.4: This covers 3 trainings @2,500/training, including 1 training and Y1 and 2 trainings in Y2. - For Output 1.5: This covers 2 trainings @2,500/training, including 1 training and Y1 and 1 training in Y2.</p>	<p>30,500</p>				<p>30,500</p>		<p>30,500</p>	<p>Burkina Faso Rural Electrification Agency (ABER)</p>
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Training , Worksh ops, Meeting s	Includes: For Output 2.1: Training in innovative business models, entrepreneurship, installations, financial literacy for women. Also, issues of IPP and climate change will be covered under these trainings, For Output 2.2: This covers 2 trainings @2,500/training, including 1 training and Y1 and 1 training in Y2, For Output 2.3: This covers venue, breaks, etc. fees paid to attend conferences, etc. as well as possible registration fees to attend workshops @ \$2,500 in Y1 and \$2,500 in Y2.	25,000				25,000		25,000	Burkina Faso Rural Electrification Agency (ABER)
Training , Worksh ops, Meeting s	Includes: For Output 3.1: 3 trainings@\$2,500 per, including venue, meals and per-diem in Y1, Y2, Y3, For Output 3.4: To cover venues, food, etc. for 2 trainings at @ \$2,500/training in Y2 and Y3, For Output 3.5: To cover venues, food, etc. for 2 trainings at @ \$2,500/training in Y3 and Y4.	17,500				17,500		17,500	Burkina Faso Rural Electrification Agency (ABER)

Training, Workshops, Meetings	Includes: For Output 4.2: 2 Workshops on data strategy will be held at together with trainings on the digital strategy, as these two outputs go hand in hand @ \$2,500 in Y2, For Output 4.6: Provision for various events/trainings, etc. @ \$2,500 in Y2 and \$2,500 in Y3.				7,500	7,500		7,500	Burkina Faso Rural Electrification Agency (ABER)
Training, Workshops, Meetings	Includes: For Output 4.4: Inception workshop \$4,000 in Y1.					- 4,000		4,000	Burkina Faso Rural Electrification Agency (ABER)

Travel	<p>Includes: For Output 1.1: DSA for local travel for each meeting (@\$200/meeting for 20 meetings, 5 in each year); DSA for 2 people for 5 days @\$281/day from the Senegalese platform in 2 trips (3 days + 2 days in Y1); 2 return tickets (Dakar - Ouagadougou) for 2 people from the Senegalese Platform (@\$800/flight) in Y1, For Output 1.2: This covers (all in Y1): 4 days DSA for international consultant (\$281*4); 1 international return ticket for international consultant (@\$1,500 per return ticket). The international consultant will attend the inception workshop virtually and the dissemination workshop on site. Local travel for local consultant and stakeholders (\$20*70), For Output 1.3: This covers DSA for the international consultant for the 3 trainings (9 days in Y1, 9 days in Y2, 5 days in Y3) @ \$281/day; Local travel for participants to the 3 trainings: 30 participants per training @\$20/participant/training; 3 return tickets for the international</p>	45,041				45,041		45,041	Burkina Faso Rural Electrification Agency (ABER)
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Travel	Includes: For Output 2.2: This covers DSA for the international consultant for the 2 trainings (5 days in Y1, 5 days in Y2) @ \$281/day; Local travel for participants to the 2 trainings: 30 participants per training @\$20/participant/training; 2 return tickets for the international consultant @ \$2,000/ticket (1 in each of Y1, Y2), For Output 2.3: This covers DSAs for 4 people for 5 days @ \$281/day; 4 return tickets: 1 for the international consultant @ \$2,000/ticket, and 3 for the members of the association @ \$1,500/ticket.	20,130				20,130		20,130	Burkina Faso Rural Electrification Agency (ABER)
Travel	Includes: For Output 3.1: This covers: DSAs for the international consultant for 12 days @ \$281/day; 3 return tickets @ \$1,500/ticket; Local travel for participants to the 3 trainings: 30 participants per training @\$20/participant/training.		9,672			9,672		9,672	Burkina Faso Rural Electrification Agency (ABER)

Travel	<p>Includes: For Output 4.1: This covers DSAs for the international consultant for 5 days @ \$281/day; 1 return ticket @ \$1,500/ticket; Local travel for participants to the training: 30 participants per training @\$20/participant/training, For Output 4.3: This covers DSAs for the international consultant for 5 days @ \$281/day; 1 return ticket @ \$1,500/ticket; Local travel for participants to the training: 30 participants per training @\$20/participant/training, For Output 4.5: This covers DSAs for 6 participants for 4 days @ \$281/day; 6 return ticket @ \$1,500/ticket (in Y2), For Output 4.6: This covers local travel for participants to the training: 30 participants per training @\$20/participant/training in Y1, and the same in Y2, For Output 4.8: Local travel for data collection during field visits @ \$1,500 in Y4.</p>					25,454	25,454	25,454	Burkina Faso Rural Electrification Agency (ABER)
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Office Supplies	Includes: For Output 1.3: Supplies related to trainings and building technical capacities of target institutional actors (@ \$1,000 per year in Y1, Y2, Y3).	3,000						3,000		Burkina Faso Rural Electrification Agency (ABER)
Other Operating Costs	This will cover audit for 4 years@\$4,000 per year.							16,000	16,000	Burkina Faso Rural Electrification Agency (ABER)
Other Operating Costs	Communication expenses for the PMU: \$1,113 in Y1 and \$174 in Y2.							1,287	1,287	Burkina Faso Rural Electrification Agency (ABER)
Other Operating Costs	Includes: For Output 1.4: Communication costs at \$1,000 in Y2, For Output 1.6: Communication and translation costs for \$3,000 in Y4.	4,000						4,000	4,000	Burkina Faso Rural Electrification Agency (ABER)
Other Operating Costs	Includes: For Output 2.3: This will cover printing of brochures, business cards and etc. @ \$1,500 in Y1.		1,500					1,500	1,500	Burkina Faso Rural Electrification Agency (ABER)

Other Operating Costs	Includes: For Output 3.2: For dissemination of market intelligence @ \$3,000 in Y1, For Output 3.4: For dissemination of studies @ \$3,000 in Y3, For Output 3.5: For dissemination of studies @ \$3,000 in Y4.			9,000		9,000			9,000	Burkina Faso Rural Electrification Agency (ABER)
Other Operating Costs	Includes: For Output 4.5: This will be used to cover costs such as translation services of the insight brief into English or other languages (if applicable/needed , visa fees, etc. @ \$2,500 in Y2 and \$2,500 in Y4, For Output 4.7: Videos and briefs are produced and disseminated @ \$3,000 in Y4.				8,000	8,000			8,000	Burkina Faso Rural Electrification Agency (ABER)
Total		164,941	330,828	166,172	144,954	806,895	34,000	83,671	924,566	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement

with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).