

Accelerating Sustainable and Clean Energy Access Transformation (ASCENT) in Eastern & Southern Africa



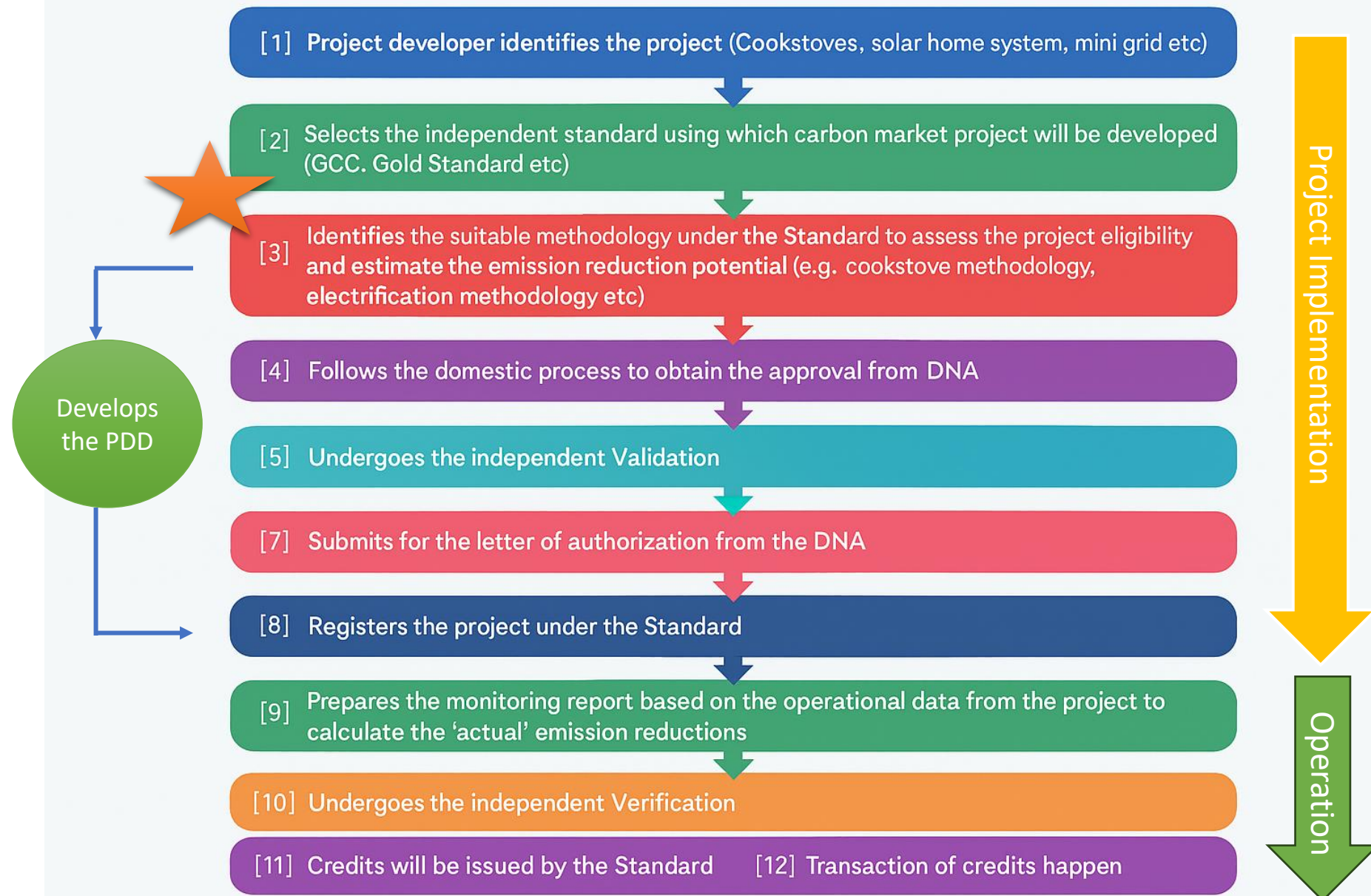
NEW CARBON STANDARD for ENERGY ACCESS

JANUARY 29th, 2026



CONTEXT SETTING

Understanding the Process Flow to Generate Carbon Credits

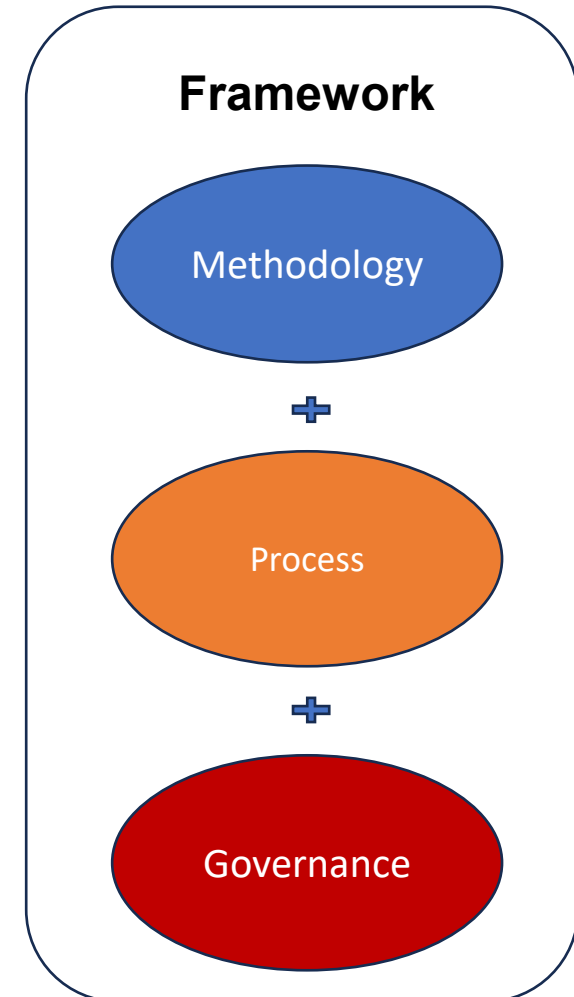


What is a Carbon Standard?

Purpose

- Provides a **framework** for creating effective carbon market projects, ensuring they contribute to emission reductions.
- **Enhancing Transparency**
 - Improves transparency in carbon markets, allowing stakeholders to understand the mechanisms behind carbon market investments.
- **Credibility**
 - By establishing clear guidelines, these standards enhance the credibility of carbon markets, ensuring trust among investors and stakeholders.
- **Informed Decision Making**
 - With improved transparency and credibility, stakeholders can make informed decisions regarding carbon project investments and their environmental impact.
- **Real Environmental Benefits**
 - ensure that projects deliver actual environmental benefits, contributing positively to climate change mitigation efforts.

Carbon standards are essential for ensuring the credibility and effectiveness of emission reductions from eligible projects and programs.

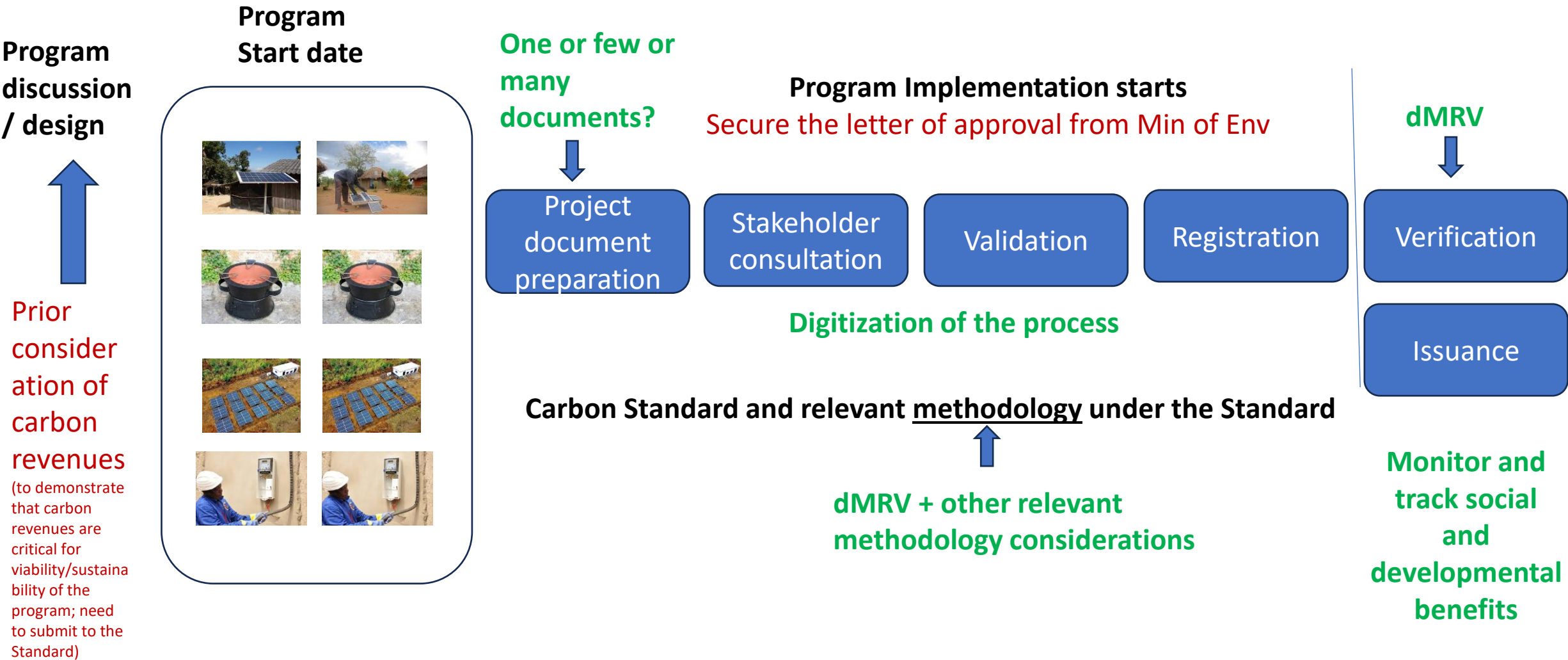


Why are we Developing an Energy Access Standard?

- To support end-to-end ecosystem of carbon market transaction cycle for energy access projects
 - Reduce **transaction costs** and increase **transparency**
 - Avoid **fragmentation** of standards and methodologies
- A global public good to facilitate **increased** carbon market transactions in the region
- Bring **tailor-made approaches that reflect on-the-ground realities of the ASCENT program** together into one ecosystem and streamline the approaches
- Builds on the **existing activities** of the selected Standard

To facilitate regional aggregation, support dMRV, integrate developmental benefits tool, and support simplified process

Typical Carbon Market Program Cycle and Proposed Modifications



Scope of the Energy Access Standard

01

Integrate **digital MRV**
into methodologies

02

Update
the **Standard's**
protocols to support
large, multi-
country energy
access programs

03

Recognize the **develo**
pment, social and
community benefits

04

Support the
digitization of the
Program cycle

Development of New Carbon Standard: Scope of workstreams

1

dMRV

- Develop the dMRV protocol for electrification and cookstove activities
- Road test in a selected country(ies)
- Get third party validated
- Public consultation
- Approval by the Standard

2

Methodology

- Identify the suitable existing methodologies
- Find the gaps with meeting ASCENT requirements
- Update the methodology(ies)
- Complete the public consultation process
- Approval of the methodology (ies) by the Standard

3

SDG Tool

- Identify the existing tool, in addition to the tool available with the selected Standard
- Identify the gaps
- Update the tool
- Complete the public consultation process
- Approval of the Tool by the Standard

4

Process

- Propose the changes required to simplify the process
 - Minimize number of documents to prepare
 - Standardize templates
 - Digitalize the process
- Make changes to the Standard's existing process related protocol
- Complete the public consultation process
- Approval by the Standard

Development of Energy Carbon Standard: Status so far



- [Global Carbon Council \(GCC\)](#) Standard has been selected, through a transparent WB procurement process
- Work on four streams in the final stages
- Public consultation on two methodologies ongoing
- Public consultation on the Program Protocol completed
- Finalized Standard by end of March 2026



Q&A



Understanding the Process Flow to Generate Carbon Credits



ENERGY ACCESS PROGRAM (EAP) CARBON STANDARD FOR ASCENT PROGRAM

DRIVING CLIMATE ACTIONS



Global Carbon Council (GCC)

EAP Carbon Standard for ASCENT program



Difference between a Stand Alone/ Bundle Project / Program of Activity



Stand Alone



Bundled project



Program of Activity (PoA)



(Future)

(Future)

(Future)



Regulatory setup

Project Standard

Methodology (DMRV enabled)

Validation / Verification Standard

Program Process

DMRV Acceptance Criteria

Standard on double counting

CORSIA Standard

Tools / Standardized baselines



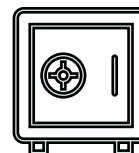
Governance setup

Steering committee

Regulatory committee

Validation and verification agencies

DMRV Certifiers



Registry setup

Transaction Registry

National Registry



EAP Portal setup

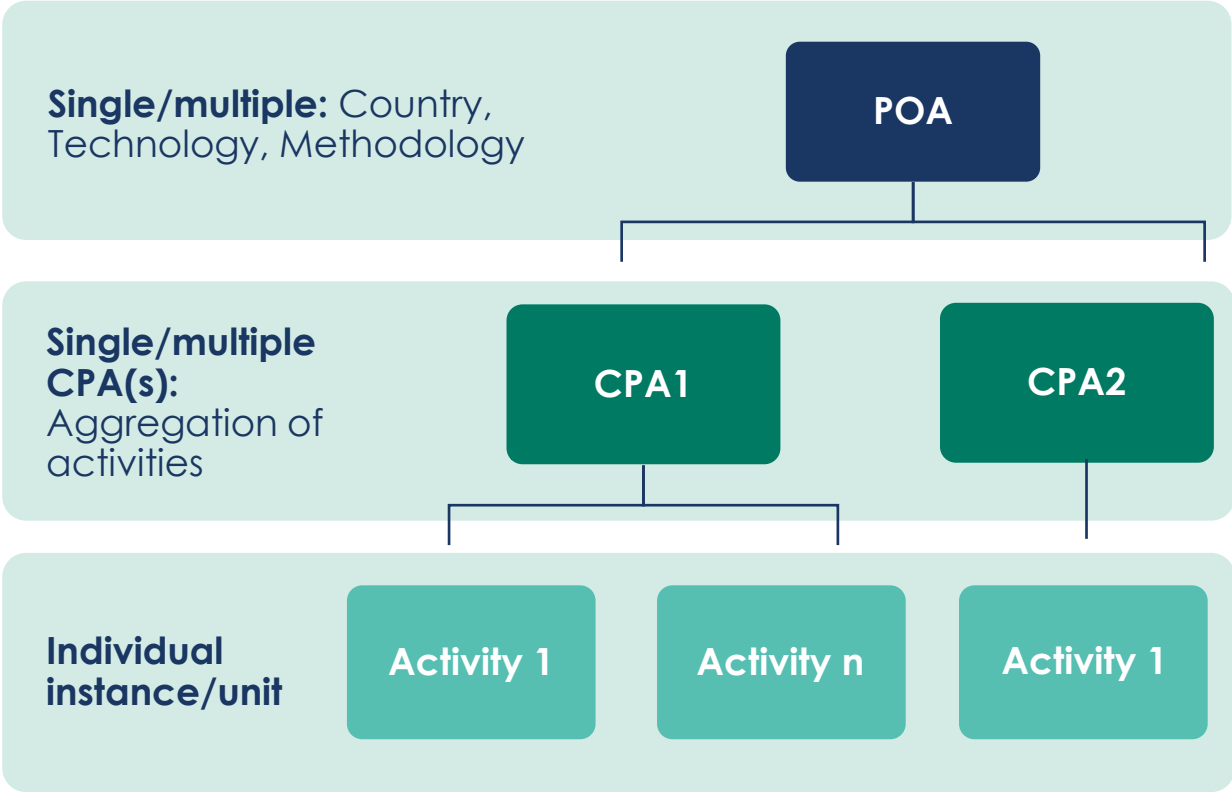
EAP Portal

CMI

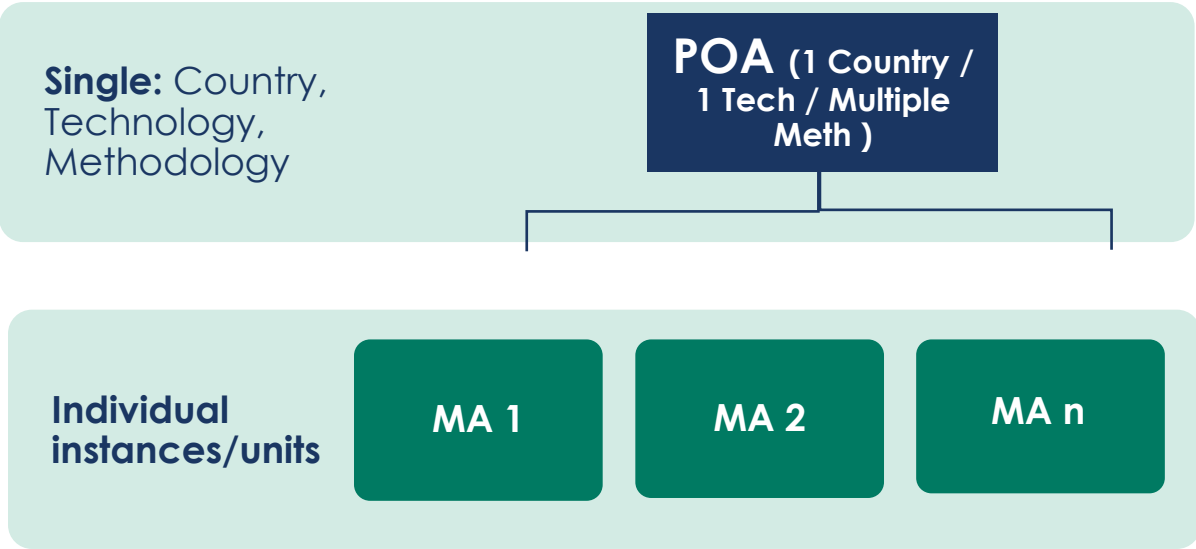
Carbon Engine

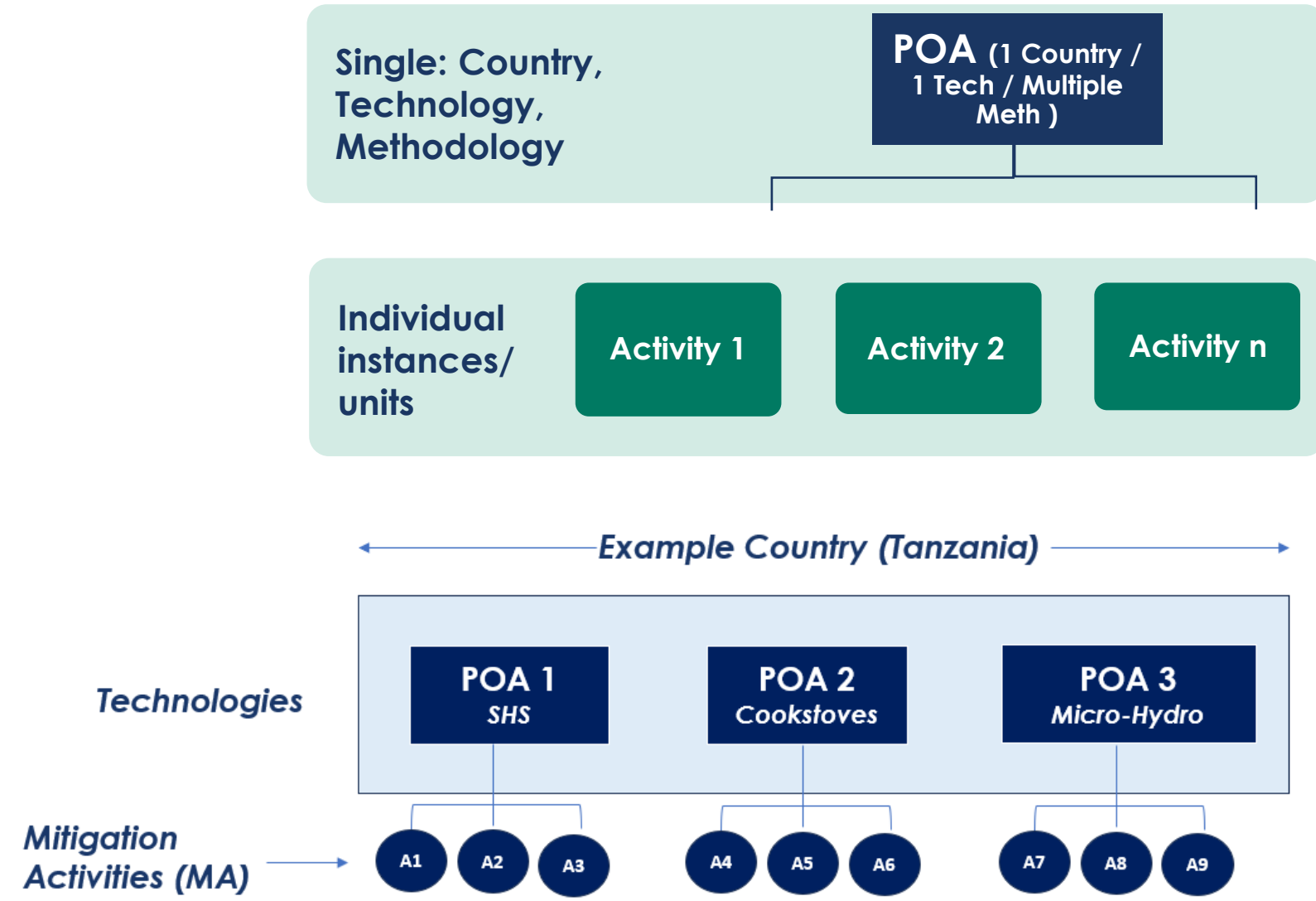


Traditional approach



Approach for EAP







Key Requirements dealt at PoA level or MA level

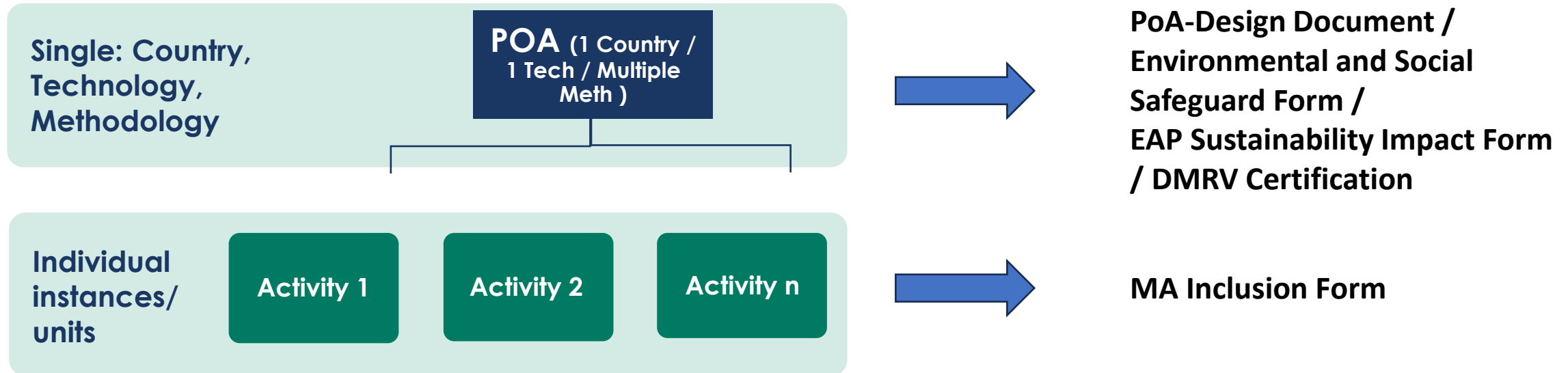
- Baseline →
- Additionality →
- Inclusion Criteria →
- Monitoring requirements →
- Env/Social Safeguard →
- SDG Impacts →
- Revision to above →

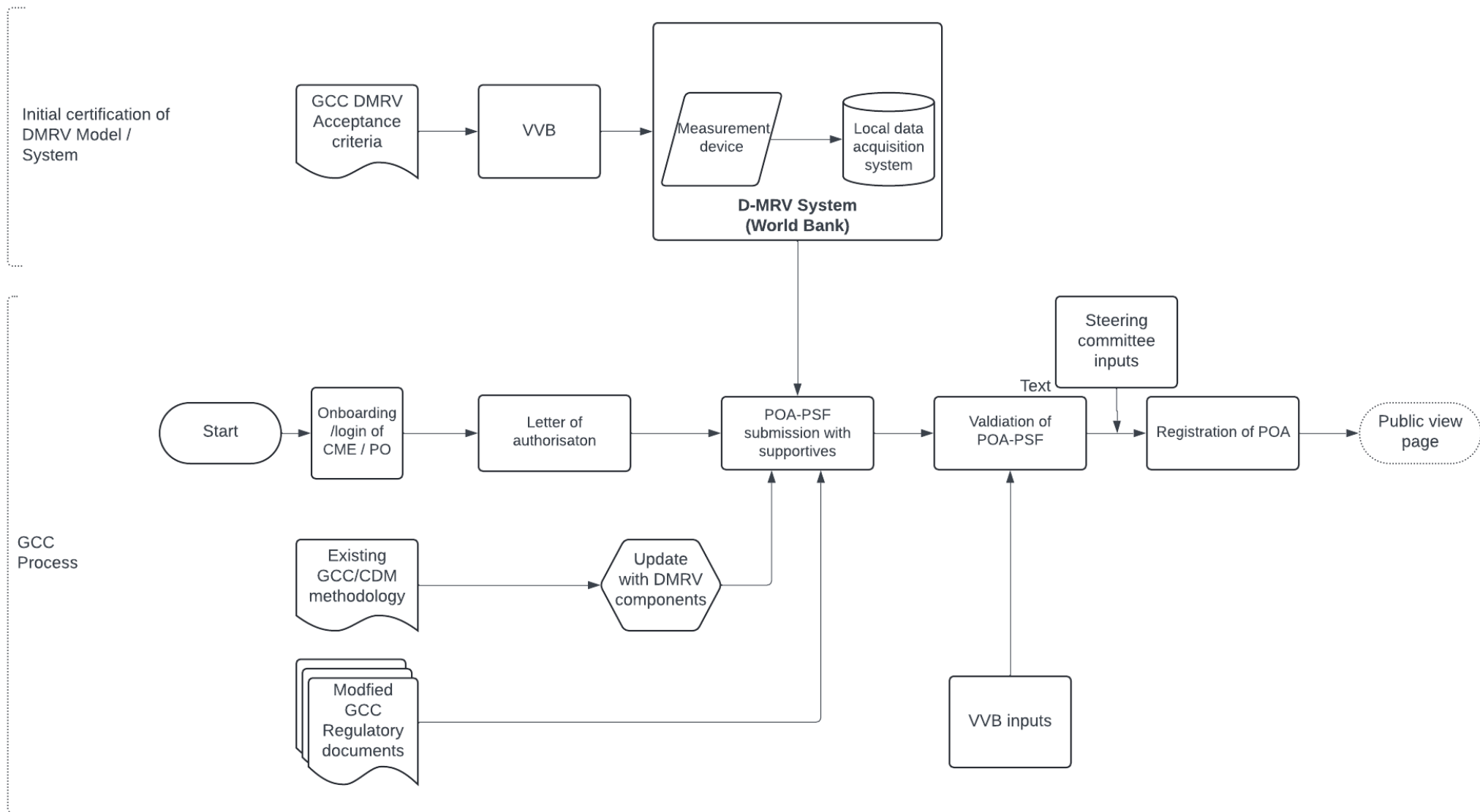
EAP

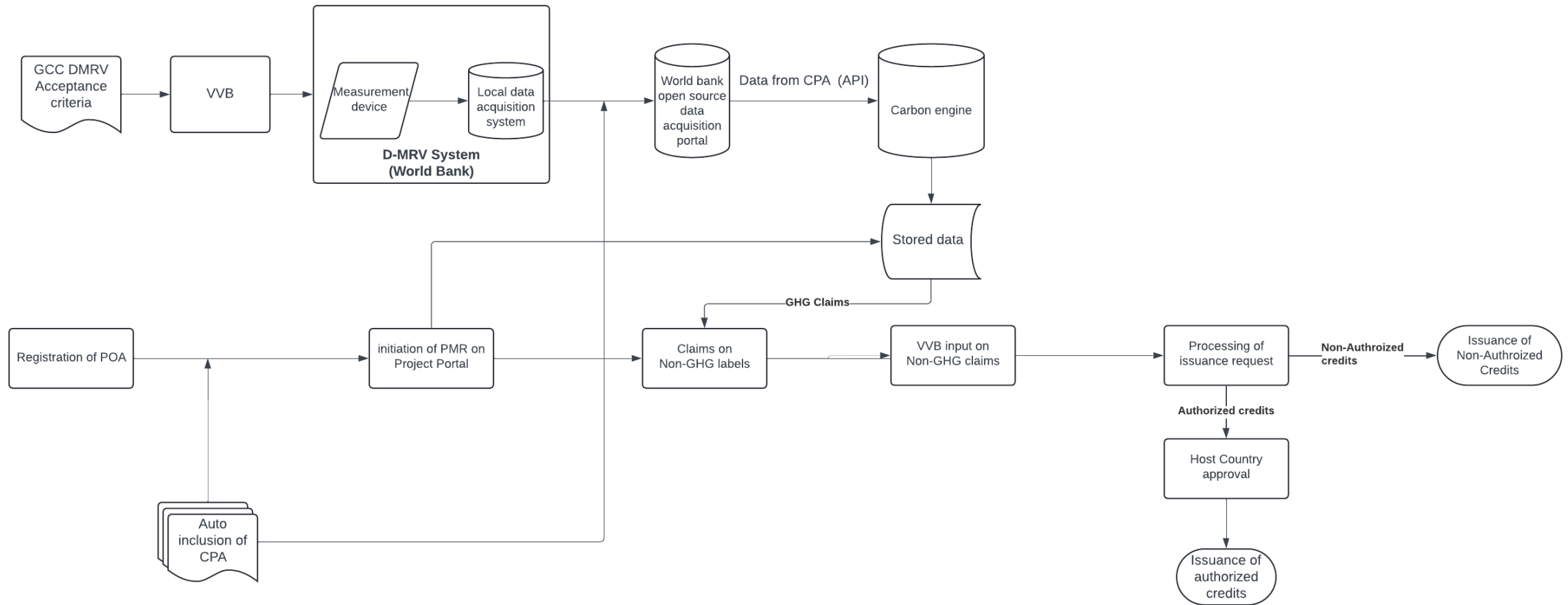
POA
POA
POA
POA / [MA]
POA
POA
POA

GCC Opinion



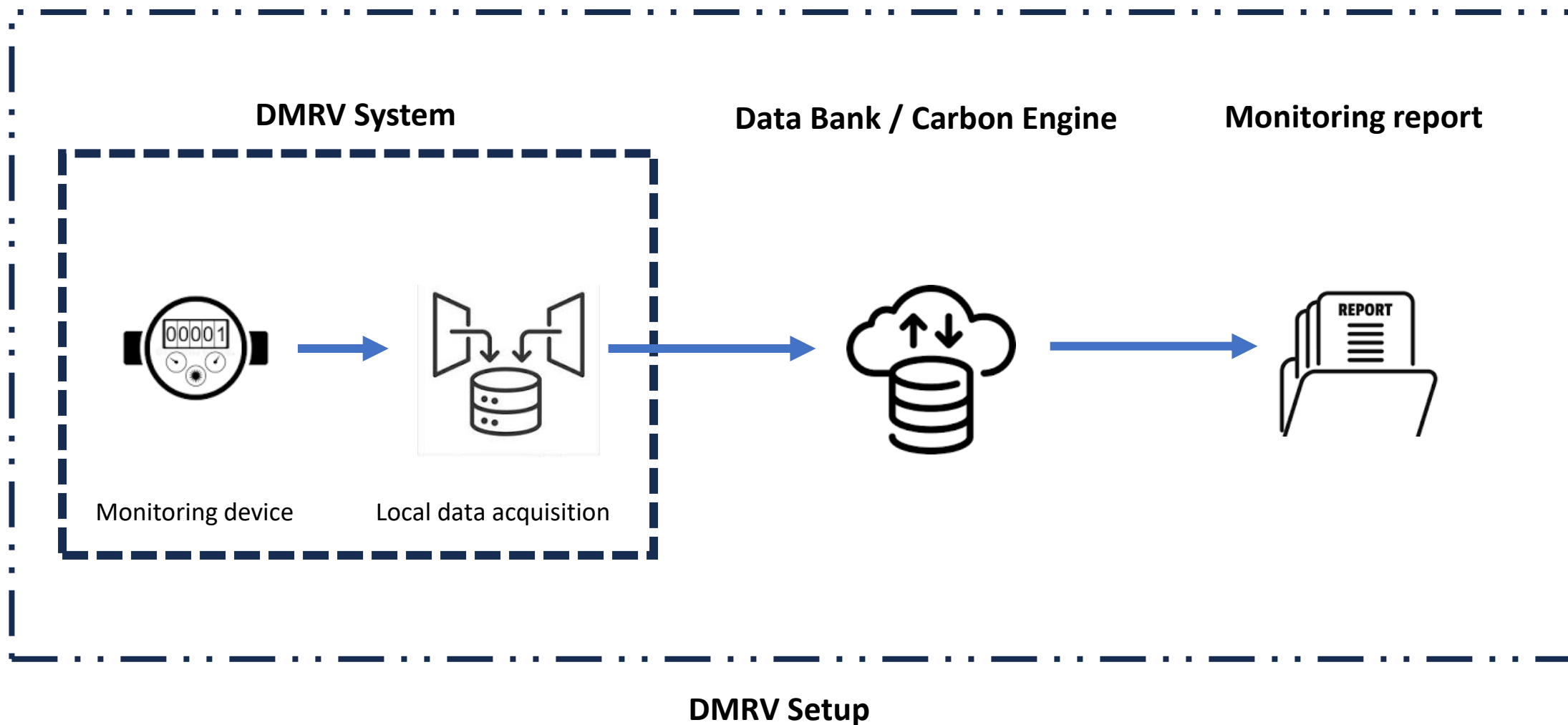








What is DMRV?





Primary data from DMRV Systems are transmitted to the WB open source data acquisition system on real time basis. In most Mitigation Actions the primary data is ingested into the monitoring setup of the agency deploying the policy measures (Eg. Renewable Energy Agencies (REA)) and this data is then collated as per frequency specified in the DMRV protocol of the applied methodology and transferred to the WB data acquisition system

The data once received at the WB data acquisition system is then in-turn transmitted to the “**Carbon Engine**” for quality checks and due diligence

The mapping of Mitigation activities (MA) to PoA is done using Unique identifiers and only on receipt of confirmation from the ASCENT Carbon Standard of successful inclusion of the MA in the registered PoA is the data transfer enabled



**Data undergoes
extensive quality
check with respect
to, not limited to**

Matching of data received against monitoring requirements of the methodology and/or methodological tools and/or standardized baselines applied to the registered PoA

Cross check of primary data (eg. power generation) against secondary data sources (eg. Wind speed for WTG's

Comparison with other data sources from others MA's in the region which deploys similar interventions

Comparison with data trends from past issuances involving the same installation

Cross check of primary measured data against theoretical maximum values that can be achieved in the installation (eg. based on battery capacity / panel capacity and utilization factor

Reconciliation of data in case of data outage due to connectivity issues between modules resulting in bulk data transfer post restoration of connectivity

Treatment of proxy data in absence of primary data in conjunction with the requirement of the same in methodology and/or methodological tools and/or standardized baselines applied to the registered PoA

Pattern analysis to spot anomalies and ascertain data tampering or deliberate alteration of data

Data Analysis for specific end user type- eg, domestic vis a vis commercial users

Data check to detect repetition of data points



Criteria / Requirement	Acceptable Conditions	Options /Means of verification	Evidence
Unique Id for MA	None	Assigned	
Corresponding ID from Regulatory / Govt Dept.	None	Technical document / Govt licence /docs	
Geolocation of the MA	User defined	Kml file , geo- coordinates / govt docs	
Unique ID of DMRV System	NA	Defined by Standard	
Installation date	Post "Start date" of POA	Technical doc/financial payment / others	
Category of installation – Household / commercial	User defined	Government documents	
Project type (I/II/III/IV) as per methodology	User defined	Design report / Govt . Docs	
Battery sizing (kWh)	User defined	Technical data sheets / govt docs	
Installation capacity (kW) / Connection capacity	User defined	Technical data sheets / govt docs	
Type of service (household power / cooking / health center etc.)	User defined	Technical data sheets / govt docs / Photographic evidence	
Distribution mechanism (Direct installation / perpetual lease / lease to own / others)	User defined	Technical data sheets / govt docs	
Type of intervention (metered / non metered)	User defined	Technical data sheets / govt docs	



In projects where the WB has conducted a Risk Analysis and ESIA Study (Environmental and Social Impact Assessment study) prior to deployment of the Program, the ongoing monitoring requirements, based on the risk assessment, can be directly taken for demonstrating compliance with requirements for Environmental and Social No Harm



If an environmental impact assessment and/or social impact assessment were carried out for the PoA/MA as required by and in accordance with the relevant procedures of the host Party or voluntarily, the PoA owners shall provide all conclusions of such assessments and references to all related documentation



For evaluation of Sustainable development impacts; the PoA would clearly identify related KPI's in line with the requirement of the EAP Sustainability Standard. All impact on sustainable development would have to be mapped with respect to Host Country national priorities



200

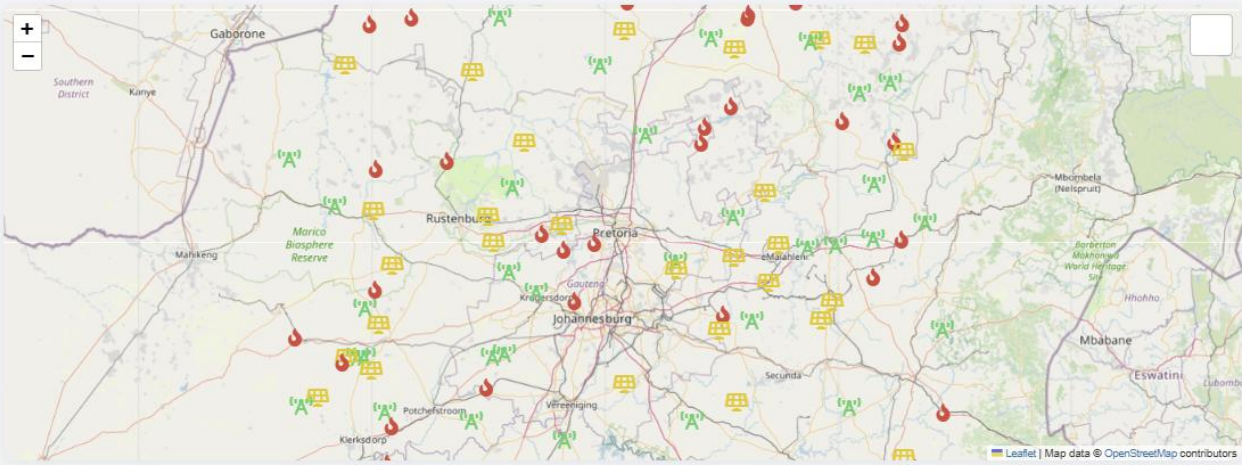
Total Installations

73109 kWh

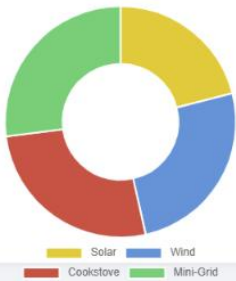
Daily Power Generation

3.406 tCO₂e

Daily Carbon Credits



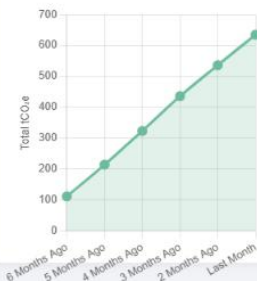
Intervention Type Breakdown



Daily Power Generation (kWh)



Monthly Carbon Credits (tCO₂e)



Intervention Analysis & Strategy

Select an intervention type to generate a strategic report (recommendations and regional risks) powered by Gemini.

Solar ☀️

Wind 🌪️

Cookstove 🔥

Mini-Grid 🏠

Click a button above to run the analysis...



Baseline Scenario:

Households/ institutional facilities/ commercial facilities using following cooking options to meet the thermal energy requirement for cooking

1. Inefficient three-stone/ open fire/ traditional cookstoves
2. Use of fuel like non-renewable biomass (viz. firewood, charcoal) and/or solid/ liquid fossil fuel (like coal /kerosene)in inefficient cooking devices.

Project Scenario (Cooking Energy Transition)

1. Use of energy efficient cooking device (like single pot or multi pot portable or in-situ cookstoves) using non-renewable biomass (viz. firewood, charcoal)
2. Use of energy efficient cooking device using renewable energy sources such as biomass pellets or briquettes, renewable charcoal and bioethanol.
3. Use of biogas-based cooking
4. Use of solar based cooking devices (e.g. solar cookers, parabolic solar cooker etc.)
5. Use of electric powered cooking devices (grid/ off grid /stand-alone solar PV) like electric induction stoves, electric pressure cookers, etc. and
6. Use of LPG based cooking devices.



Key Features:

Safeguard to avoid double counting and ensure transparency

Safeguards

1. Each of the cookstoves under the project activity shall be identified based on the assigned unique ID of the cooking device where each unique ID shall be linked to a specific user (household / institutional/ commercial facilities) details.
2. Each cookstoves to satisfy a minimum thermal efficiency requirement and indoor air pollution requirement.
3. The use of cookstoves under the project activity including use of fuel and its supply should not undermine or conflict with any national, sub-national or local regulations or guidance.
4. Use Project owner will require to clearly establish the ownership rights of emission reductions by clearly communicating their ownership rights and intention of claiming the emission reduction resulting from the project activity with all stakeholders involved including the end user's and obtaining signed agreement or written assertions from all the other parties/ stakeholders involved including technology manufacturers/ suppliers and producer/suppliers of the renewable fuel in use (e.g. pellets, bio-ethanol producer)
5. that stakeholders other than the project owner cannot claim emission reduction from the clean energy interventions considered under the project activity.



Exclusion:

Project activity to support adoption of new and energy efficient technology options using biomass or cleaner fuel for the purpose of cooking and water heating (for drinking).

The methodology is not applicable to households who use electricity as their primary baseline fuel; however, use of electricity as supplementary baseline fuel is permitted.

The project activity does not allow use of improved solid and liquid-fossil fuel-based cooking device/ cookstoves (e.g. coal, kerosene etc.) in the project scenario except LPG.

Data Requirements

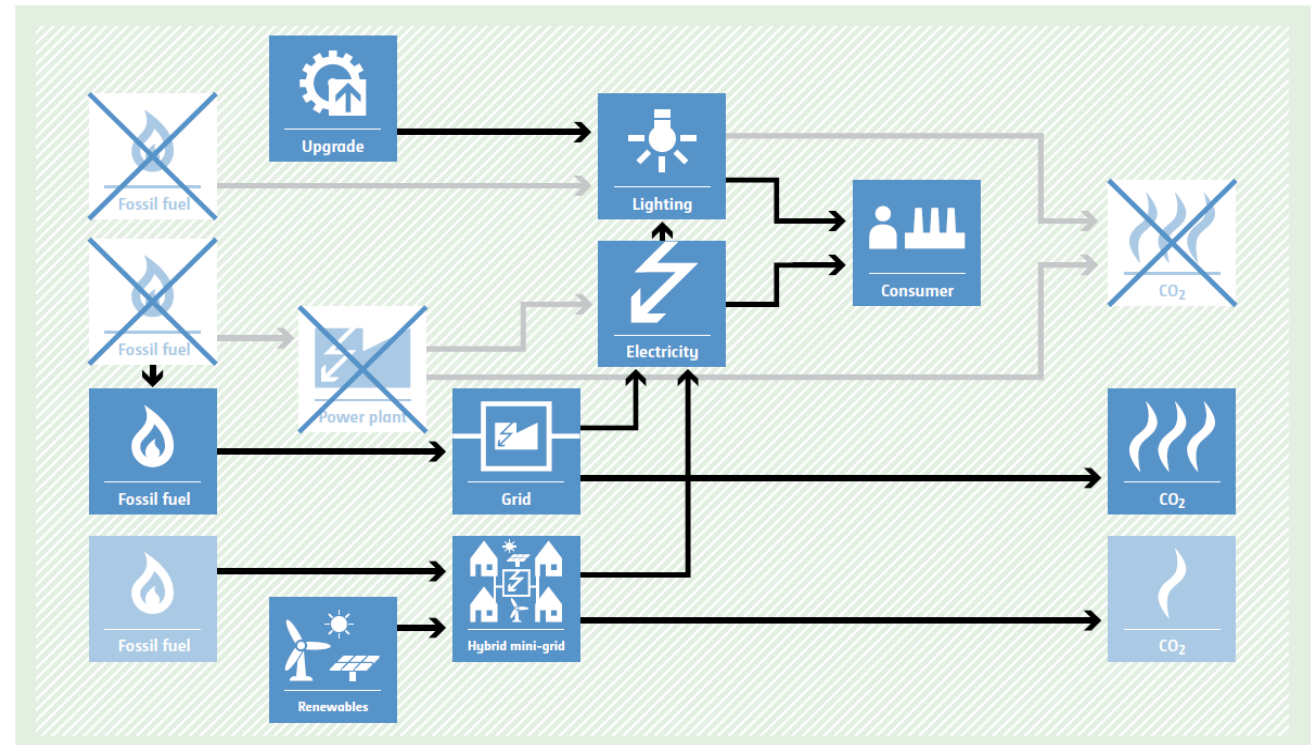
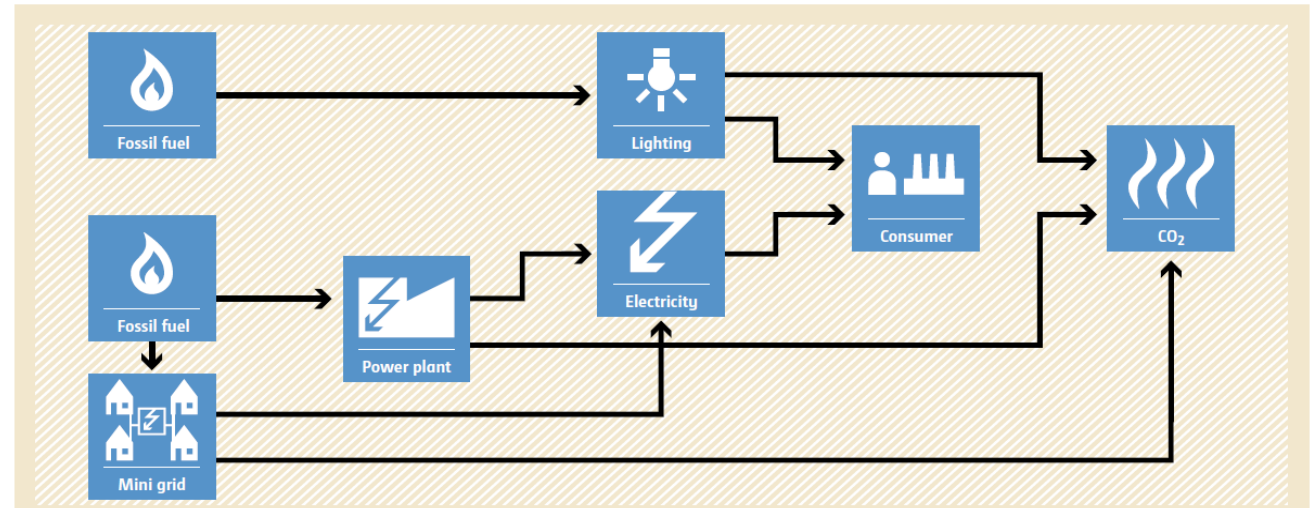
1. Information regarding the baseline scenario i.e. cooking technology and fuel in use across demography and economy
2. Use Host country decarbonization plan and program for clean cooking transition.
3. Details regarding jurisdictional REDD+ programme in the area of proposed project activity if project boundary overlaps with Jurisdictional REDD+ programme including information relating to jurisdictional programs forest reference level, forest reference emission level or accounting methodology.
4. Written host country attestation (HCLOA) issued from the designated national authority or designated focal point of the host country of the project activity authorizing the use of the emission reductions, issued as offset credits to project, by user in order to meet offsetting requirements of either CORSIA or Article 6.2 or voluntary buyers requiring the corresponding adjustments to be applied by host country.

Baseline Scenario:

In absence of the project, consumers would have no access to energy or would have used fossil fuel-based lighting, stand-alone diesel electricity generators for appliances other than lighting (e.g. TV) or would have been supplied by carbon intensive mini-grid

Project Scenario:

In the project, consumers are supplied with electricity from newly constructed renewable energy system or hybrid energy system or rehabilitated/refurbished renewable energy system or connection to a national or regional or low carbon mini-grid





Monitoring Methodology:

Option A: Metering: Consumers above 1,000 kWh/y

- Electricity meters
- Pre-payment meters
- Pay-as-you-go (PayGo)
 - Stratified random sample survey to cross-check CUF for consumption above suppressed demand

Option B. Distribution metering and consumer numbers

Only Type II consumers served by mini-grid or grid extension

Option C. Deemed consumption

Only individual RE system, below 1000 kWh/y

- Stratified random sample survey to cross-check CUF for consumption above suppressed demand

Monitoring of suppressed demand conditions:

Number of persons/consumer

- Residential energy consumption: up to 250 kWh per person per year;
- Non-residential energy consumption: up to 750 kWh per person per year

Healthcare facility	Description	Energy consumption per hospital
Basic Health Post - basic access to healthcare	No beds other than for emergencies/ maternity care.	7.5 kWh/day
Primary Hospital - intermediate access to healthcare	Coverage for 30–60 beds. Low/moderate energy requirements.	15 kWh/day
Secondary Hospital - advanced access to healthcare	Coverage for 60–120 beds. Moderate energy requirements. May accommodate sophisticated diagnostic medical equipment	20 kWh/day
Tertiary Hospital – full access to healthcare	Coverage for >120 beds. High-energy requirements. May contain sophisticated diagnostic devices requiring additional power and perform surgical procedures.	25 kWh/day

DRIVING CLIMATE ACTIONS



Global Carbon Council (GCC)

THANK YOU



Q&A



Accelerating Sustainable and Clean Energy Access Transformation (ASCENT) in Eastern & Southern Africa



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ASCENT Carbon Webinar: Carbon
Standard for Energy Access

