

# AREI

Africa Renewable Energy Initiative



A framework for transforming Africa to a renewable energy powered future with access for all.





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# AFRICA RENEWABLE ENERGY INITIATIVE ACTION PLAN

## 1 INTRODUCTION

This Action Plan for the Africa Renewable Energy Initiative (AREI) specifies a number of activities outlined in the *Africa Renewable Energy Initiative Framework Document*. The Framework document presents the background, context, goals, guiding principles, activity clusters, implementation strategy, timeline and governance structure, and constitutes the basis for the Initiative. It shows how the AREI is firmly anchored in the context of climate change and how low to zero carbon development strategies of African countries must be enabled/supported by public climate finance and means of implementation according to the principles of UNFCCC. It also recognizes the critical importance of energy access for enhanced well-being, economic development and the fulfillment of all the Sustainable Development Goals

The Action Plan presented here is thus supplementary to the AREI Framework Document, and should be understood as a dynamic tool that will change as the Initiative evolves. This current version focuses on the immediate 2016 initiation/establishment phase. Activities and cost estimates for both Phase I (2016-2020) and Phase II (2020-2030) will be further elaborated and detailed in subsequent versions of the Action Plan once the Initiative is operational.

The AREI is not a single project or programme, but an ***overriding, continent-wide framework*** with a decades-long timeframe. This means that the corresponding Action Plan primarily outlines various policy approaches and programmes of work that can serve the continent as a whole, or support particular countries or groups of countries. Complementing this programmatic approach, the Initiative will also support the enabling of specific RE projects in the pipeline that adhere to the overarching principles of AREI.

The Action Plan begins with goal statements, guiding principles and expected outcomes – all derived from the AREI Framework Document – before presenting envisaged actions divided into the three time phases. This Action Plan will be updated and refined as the work evolves.

## 2 GOALS

The Africa RE Initiative seeks to:

- Help achieve sustainable development, enhance human well-being, and support sound economic development by ensuring *universal access* to sufficient amounts of clean, appropriate and affordable *energy*
- Help African countries *leapfrog towards renewable energy systems* that support their low-carbon development strategies while enhancing economic and energy security.

### 3 GUIDING PRINCIPLES AND KEY FEATURES OF THE AREI

As stated in the Framework Document, AREI:

- Should contribute to achieving sustainable development in Africa by scaling up and accelerating the deployment and funding of renewable energy in Africa.
- Must address the entire African continent and benefit all African countries.
- Should boost intra-regional cooperation and promote and support only those activities that are agreed by all countries concerned and impacted.
- Can promote all kinds of renewable energy technologies – in particular solar; wind; pico-, micro-, small- and medium-scale hydro; modern biomass; geothermal; and marine – provided they are socially and environmentally appropriate, gender sensitive and in line with these guiding principles
- Can promote the full range of renewable electricity applications, from grid-connected to mini-grids to small stand-alone systems, as well as other forms of renewable energy, with particular consideration being paid to applications that meet the needs of poor people.

Furthermore, the AREI Framework describes additional key features that should guide the efforts:

- Country ownership
- Transformative, programmatic approaches.
- Leapfrogging to the best available, smart, modern distributed renewable energy systems that enable a transition to low to zero carbon futures.
- Multi-stakeholder participation and social and environmental safeguards as essential elements of sustainable solutions.
- Strengthening conducive environments at all levels to enhance private and public sector engagement.

### 4 EXPECTED RESULTS

The expected results of AREI, to be realized through programmatic activities enabled by transformative policy measures, include:

- At least 10 GW of new and additional renewable energy generation capacity across Africa by 2020; and at least 300 GW by 2030
- Universal access to modern energy services in Africa by 2030
- A quantitative and relative increase in the number of MSMEs or other users connected to national grids or new mini-grids
- A quantitative and relative increase in the renewable energy share of overall energy consumption, particularly in agriculture, industry, and the service sectors.
- A quantitative and relative increase in the share of African firms providing renewable energy equipment, supplies, and services to national and African markets.

## 5 WORK AREAS – OVERVIEW

AREI's core activities are organized into clusters, with the cluster – "Strengthening Policy, Regulatory, Support and Incentives Frameworks" – further organized into five sub-clusters as illustrated below. Altogether, implementation of these core activities will drive the desired transformations.

Complementing these core activities are sets of cross-cutting activities that are essential for successful implementation and sustainability of the Initiative.

### Core Activities



### Cross-cutting activities



## 6 TIMELINE

This Action Plan envisages a three-phase implementation process:

- 1) The **immediate establishment phase (2016)**: Formal implementation of the AREI, including establishment of a Delivery Unit (DU).
- 2) **Phase I (2016-2020)**: Assessments, preparations and critical enabling activities at the continental African level as well as in a number of pioneering countries, setting the basis for enhanced acceleration in phase II. Enabling of appropriate RE projects already in the pipeline. Achievement of at least 10 GW new and additional generation capacity.
- 3) **Phase II (2020-2030)**: Ambitious, full-scale roll-out of nationally determined policies, programmes and incentives as initiated under Phase I. Continuous assessments and revisions for further scaling up. Achievement of at least 300 GW new and additional generation capacity.

As illustrated below, activities falling under the Initiative will be undertaken both simultaneously and sequentially at the continental, sub-regional and national levels. Many of the initial activities will be undertaken at the continental level through the formation and early work of the AREI Delivery Unit and other institutions (such as mapping, assessments, studies, etc.), with a movement towards implementation of transformative policies and incentives at national levels over time. Several activities will, however, take place at national and sub-regional levels almost immediately, and serve as inspiration and pilot/demonstration examples that other countries may choose to replicate.

	Establishment phase	Phase I (2016-2020)	Phase II (2020-2030)
Continental	Establishment of AREI governance structures Delivery Unit, Secretariat and Trust Fund set up	All Core and Cross-cutting Work Areas initiated Delivery Unit fully operational AREI Trust Fund capitalised Africa Energy Institute established	AREI Delivery Unit further expanded AREI Trust Fund further capitalised Most successful schemes adopted and modified across the continent
Sub-continent	Consultations with sub-continent institutions	GCF obtained for clusters of countries Sub-continent programmes and pilot efforts	Sub-continent programmes and efforts further consolidated
National	Countries engaged in the shaping of AREI	Comprehensive policies/programmes in many countries Project support in many countries Assessments, planning studies, engagement in all countries	Comprehensive policies/programmes and effective RE incentives schemes in all countries GCF/other international public financing to all countries Project support as appropriate/needed

## 7 ESTABLISHMENT PHASE (2016)

The immediate establishment phase will be carried through during 2016. It will include the following activities:

- 1. Operationalization of a governance and management structure** that ensure clear, transparent decision-making, trusteeship and effective coordination of activities in accordance with the AREI Framework:
  - a. Establishment of governance structures (Board and Steering Committee)
  - b. Establishment of an autonomous dedicated trust fund with AfDB as trustee, under direct command of AREI Board and Steering Committee
  - c. Development of Terms of Reference for Delivery Unit and the secretariat to support AMCEN and CAHOSCC.
  - d. Initial recruitment of Delivery Unit personnel and establishment of strategic partnership(s)
  - e. Detailed budgeting for establishment phase operations.
- 2. Engagement with countries and African institutions**  
Active outreach and engagement with countries and African institutions at national, sub-continental and continental levels.
  - a. Distribution and discussion of all relevant AREI documents.
  - b. Country and relevant organization visits and dialogues
  - c. Workshops
  - d. Consultations
  - e. Technical assistance to countries in identifying country needs and developing proposals for the Green Climate Fund and other international funding sources
- 3. Strengthening of international support and strategic partnerships**
  - a. Formulation of engagement procedures with existing institutional entities
  - b. Continued and intensified interaction with key strategic international partners
    - i. Developed countries
    - ii. Sub-continental and continental African institutions
    - iii. Developing countries
    - iv. International institutions
    - v. Civil society and research networks/organisations.
    - vi. Private sector
- 4. Initial resource mobilization:**
  - a. Securing of resources for the immediate Establishment Phase (12 months)
  - b. Engaging with the partners on the details of the USD 10 billion pledge for AREI made during the COP21.
  - c. Formulation of additional resource mobilization plan to secure the necessary funds for Phase I (2016-2020) involving developed countries, developing countries and multilateral sources such as GCF.

## **5. Establishment of operations procedures:**

- a. Further detailing of the AREI Action Plan and budget for Phase I.
- b. Initiation of participatory processes to formulate best practice social and environmental safeguards.
- c. Development of procedures and criteria for determining AREI eligibility and project/program assessments/prioritisation.
- d. Monitoring and evaluation/reporting procedures:
  - i. Procedures for monitoring and evaluation and reporting of activities directly undertaken by the Delivery Unit and Trustee
  - ii. Procedures for monitoring and evaluation of activities under AREI undertaken directly by countries and other institutions, including contributions towards AREI targets.
- e. Fiduciary arrangements (Trustee).

## **6. Multi-stakeholder participation processes for broad engagement and structuring of the initiative:**

- a. Initiate multi-stakeholder consultations at local, national, sub-continental and continental levels.
- b. Conferences and meetings.
- c. Assessments and implementation of best practices

## **7. Communications and outreach**

- a. Web/multimedia tools to make information on AREI widely accessible and enable interaction by stakeholders
- b. Enhancing visibility of AREI at different events as appropriate, such as AMCEN, New York sign-on ceremony, AfDB General Assembly, COP22 etc.
- c. Liaising with communications departments at other relevant institutions, [including AfDB and AMCEN]

## **8. Initiate concrete activities under AREI Action Plan work areas (particularly Work area 1)**

- a. Mapping of experiences (successes and bottlenecks) and activities for enhanced coordination of existing and future RE initiatives (including engaging with existing mapping exercises).
- b. Commissioning analytical studies on key issues and priority areas, taking into account emerging issues, challenges, opportunities and risks, to substantiate and further concretize the AREI Action Plan across its Work Areas.
- c. Assessing transformative programmatic as well as project opportunities to achieve the goal of 10 GW new and additional renewable energy by 2020 and set the ground for 300 GW by 2030 in line with AREI principles and guidelines.
- d. Specifying and implementing further activities as needed.

The immediate Establishment Phase activities will continue the progress made since the 15th AMCEN meeting regarding the African Renewable Energy Initiative, as recognized by African Heads of State in AU Assembly Decision (Doc. Assembly/AU/16 (XXV)), the endorsement of the AREI Framework Document by CAHOSCC on 25<sup>th</sup> September 2015, the formal launch of AREI at COP21 on 1 December 2015, and the decisions made during the AU Summit in January 2016.

## 8 ACTIONS PHASE I: 2016-2020

According to the AREI Framework Document, Phase I (mid-2016-2020) will:

- Coordinate and initiate a number of assessments, studies, analyses and pooling of experiences and visions across African countries through genuine multi-stakeholder participation to provide a menu of options for African governments.
- Facilitate and support the establishment of particularly promising incentives structures and comprehensive policy packages for national governments in interested African countries.
- Set the basis for qualitative learning, improvement, and scaling up in the post-2020 phase.
- Enable implementation of RE projects already in the pipeline that meet AREI criteria and that would not move forward without additional support.
- Ensure that through these activities 10 GW of new and additional renewable energy generation is enabled, in accordance with the guiding principles and approaches, priorities, and selection criteria of the AREI framework.

### 8.1 CONSOLIDATION OF THE AREI DELIVERY UNIT

During Phase I, the AREI Delivery Unit will further consolidate and expand its scope of work. It is estimated that for this phase (2017-2020) a total of USD 19 million will be needed to cover salaries, rent, travel and other operating costs, including expenses for Board and Steering Committee functions.

Key actions in relation to the consolidation of the Delivery Unit during Phase I include:

1. Further recruitment of staff, primarily African, for a total of approximately 30 persons (25 professional and 5 administrative personnel) within two years, as appropriate.
2. Capacity mobilizing/building through the Delivery Unit itself by establishment of a fellowship programme and opportunities for young African professionals to take active part in the work of the DU on a 12-24 months basis as a concerted strategy to build network of future African energy experts.
3. Consolidation of monitoring and evaluation procedures.
4. Development of knowledge management systems conducive to the overall work of the AREI (to serve both the DU and partner institutions).
5. Development of internal and external communications systems.
6. Exploration/preparations and planning for establishment of an African Energy Institute directly connected to the AREI and its Delivery Unit – with capacity to conduct policy-relevant research for AREI and conduct scaled-up AREI relevant training for students/academics, technical and administrative professionals, policy-makers, media, civil society, and business.

## 8.2 CORE SUPPORTIVE ACTIVITIES BY AREI DELIVERY UNIT AND COLLABORATING INSTITUTIONS

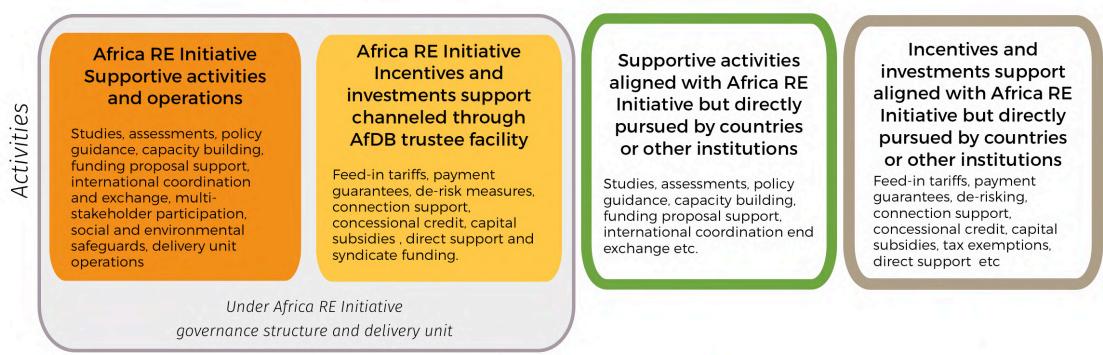
The Core Activities of AREI are presented in the AREI Framework Document and fall into several Work Areas. During Phase 1, all activities in each cluster should be initiated.

### Core Activities



Across the work areas are both **1) supportive activities** including coordination, studies, assessments, policy guidance, capacity building, funding proposal support, etc. that will be initiated early and help inform the selection and elaboration of various policies, incentives and investment support mechanisms, and **2) other forms of activities including funding of incentives and investments that directly enable deployment of RE.**

The latter category of activities involves in many cases political and legislative processes that take time and will therefore generate results only towards the end of Phase I or spill into Phase II. In addition, AREI seeks to both take an active role and pursue or facilitate activities in its own, where there is a particular need and lack of appropriate action, as well as enhance the identification, coordination and multi-stakeholder elaboration of the many activities that a broad range of actors and supporters already pursue – or may take up in the future.



An initial, indicative list of envisaged outcomes, activities and timing under the different Supportive Core Activity Clusters is presented below, reflecting the activity clusters as presented in the AREI Framework as well as the different categories as indicated in the figure above. Initial tasks for the Delivery Unit include *further elaboration of these activities* in collaboration/consultation with other relevant institutions, including *more detailed estimations of costs and implementation plans* to be further considered and endorsed by the AREI Steering Committee and Governing Board.

## WORK AREA 1: MAPPING OF EXPERIENCES AND ACTIVITIES FOR ENHANCED COORDINATION OF EXISTING AND FUTURE RE INITIATIVES.

This Work Area is motivated by the immediate need to determine what RE efforts exists on the continent, to enhance coordination and to avoid duplication. Actions involve identification and analysis of relevant existing initiatives and systematic examination of experiences, available tools and lessons learned. Structures and procedures will be established for on-going mapping and coordination work. Actions in this area may be initiated before the AREI Delivery Unit is fully set up and functional. Mapping and identification of gaps will also be of priority as initial tasks to help coordinate and prioritise work in each of the other Work Areas.

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**Outcome(s): *Energy policies, RE programmes and projects mapped and better coordinated for minimization of duplication and maximization of beneficial impacts.***

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### Action Items

- a. Collect information on all RE-related programs/projects in Africa, covering: current and emerging technologies, RE policies, regulations, tools and experiences in the African region.  

Start: Inception Duration: Ongoing

- b. Determine the level of effort, performance, gaps and priorities of the different RE initiatives and identify those that can be mutually strengthened through partnerships, drawing on existing data and/or commissioning, as needed, new assessments of approaches to determine success factors and lessons learned. 

Start: Inception Duration: Ongoing

- c. Facilitate exchange of best-practice policies by supporting participation of policy makers in peer-exchange networks and organizing consultative events on policy design and implementation that bring together African and non-African decision makers, parliamentarians, IFIs, utility managers, regulators and civil society, and private sector organizations.  

Start: Q4, 2016 Duration: Ongoing

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## WORK AREA 2: STRENGTHENING POLICY, REGULATORY, SUPPORT AND INCENTIVES FRAMEWORKS

This set of Work Areas focuses on strengthening of policy, regulatory, support and incentives frameworks to (a) provide long-term investment security, (b) drive upgrades of existing national grids and accelerate mini-grid rollout, (c) address needs for non-electrical energy forms in productive sectors, (d) improve energy efficiency and e) to enhance domestic renewable energy technology manufacturing, assembly, deployment and operations capacity.

### WORK AREA 2.1: PROVISION OF LONG-TERM INVESTMENT SECURITY.

This area encompasses the largest set of activities and corresponding requirements for funds. It involves pooling existing, relevant experiences and helping countries develop and deploy new, transformative policy and incentives programmes. One such approach entails elaboration of a bold scheme of internationally funded risk reduction guarantees and support for off-take and tariff security (for example different variations of renewable energy feed-in tariffs and auction schemes), conducive to small-scale, community-based developers, mid-size, as well as larger public and private entities across countries – making RE investments the default choice for most developers both in terms of grid and off-grid investments. Preliminary assessments of how much public funds would be needed per year over 20 years for such payment guarantees and other incentives to leverage investments of the 300 GW new renewable energy generation capacity under Phase II is currently being undertaken. Mapping and early implementation of these and a multitude of other kinds of incentives during phase I in a number of pioneering countries will set the ground for other countries to choose their specific policy mix for nation-wide, large-scale implementation during Phase II.

**Outcome(s): *Investments in RE generation by households, communities, MSMEs, larger companies and public institutions in Africa are increased and sustained with vastly expanded and diversified ownership base***

#### Action Items

- a. Evaluate and disseminate lessons learned from experiences in the use of different governance systems, policy tools and incentives for long-term investment security, particularly in developing and African country contexts. 

Start: Q3, 2016 Duration: 12 months

- b. Develop and elaborate models of policy and incentives programmes that consider off-take and tariff guarantees (such as feed-in tariffs) as well as other tools for full range of developers. 

Start: Q3, 2016 Duration: Ongoing

- c. Identify particularly promising policy options supporting mini-grid, off-grid and household-based RE generation (stand-alone and grid-interactive). 

Start: Q1, 2017 Duration: Ongoing

- d. Determine and mobilize international financial support and domestic contributions (including those needed to cover the costs of preparing proposals for GCF and other funding sources) to enable RE investment policies and incentives at country levels. 

Start: Q4, 2016 Duration: Ongoing

## WORK AREA 2.2: UPGRADING EXISTING NATIONAL GRIDS AND ACCELERATING MINI-GRID ROLLOUTS.

This Work Area seeks to enable African countries pursue more visionary and bold RE efforts by supporting the planning of energy systems – grid and off-grid – that are based on best available technology. Activities in this cluster will create policy and regulatory frameworks that enable African countries leap-frog to the smartest, most efficient distributed renewable energy systems of the future. Immediate actions include mapping and assessment of existing models for main grid upgrades, smart grid solutions and trajectories, as well as assessment of appropriate policy frameworks and support models for minigrids. Urgent activities also include development of results-based support schemes such as per-connection payments for both off-grid and grid electricity access in rural areas, as well as estimation of funding requirements if African countries were to pursue such plans.

**Outcome(s):** *African countries planning for best available and most appropriate smart grid technologies while extending grids and boosting minigrid rollout in manners consistent with this vision.*

### Action Items

- a. Formulate visions and model options for transitions to smart distributed grids and renewable energy centered systems with a time frame of several decades, for countries to consider and elaborate as appropriate. Strengthen these efforts by building capacities and facilitate diffusion of experience and knowledge on technology transitions encompassing both smarter centralized grids, and minigrid roll-outs.    
Start: Q4, 2016 Duration: Ongoing
- b. Commission RE-readiness assessments of existing grid-infrastructure, covering identification, prioritization and cost estimations of immediate and longer-term technology upgrading, as well as options for enhanced maintenance and operations strategies.    
Start: Q4, 2016 Duration: Ongoing
- c. Map minigrid “spaces” and identify and support appropriate business models and incentive schemes for minigrid projects/development (both grid-connected and stand-alone).    
Start: Q1, 2017 Duration: Ongoing
- d. Create stable policy environments that provide certainty for minigrid project developers concerning main grid extension plans and contractual/financial arrangements in the event of later grid connection.    
Start: Q1, 2017 Duration: Ongoing
- e. Design and implement household-oriented RE deployment efforts and support schemes, including ways of integrating these in long-term planning of national energy systems.    
Start: Q1, 2017 Duration: Ongoing
- f. Enable countries to explore, obtain and efficiently allocate funds (including those channeled through the AREI trustee) for various pioneering incentives schemes for grid extension and minigrid expansion for subsequent scaling up and replication.    
Start: Q2, 2017 Duration: Ongoing

## WORK AREA 2.3: ADDRESSING NEEDS FOR NON-ELECTRICAL ENERGY FORMS IN PRODUCTIVE SECTORS.

This Work Area addresses the often-neglected non-electricity energy needs (for transportation, cooking, heating/cooling, post-harvest processing, smelting, and milling, etc.), across all sectors of African societies. Early activities include enabling countries to consider and adopt various support systems and incentives that enable transition from non-electrical systems that use fossil fuels to ones that use renewable energy. Over the long term, this work area will engage and support African countries to map desired shifts between non-electrical RE energy and electricity options, and integrate these desired trajectories into national energy strategies, plans, and programmes.

**Outcome(s): *New legislation and investment incentives enhancing energy access to non-electrical RE services and products***

### Action Items

- a. Develop market-transformative credit/loan facilities and other support systems for both non-profit and profit oriented customers of non-electrical energy equipment/appliances, taking particular consideration of the needs of women. 

Start: Q1, 2018 Duration: Ongoing

- b. Set up or strengthen facilities for delivering business development services coupled with provision of seed capital for small and medium-sized entrepreneurs, enabling them to meet demands for productive applications of non-electrical energy products and services.



Start: Q1, 2018 Duration: Ongoing

- c. Implement new (or strengthen existing) South-South cooperation agreements and frameworks that support the transfer, replication and scale-up of the most promising non-electrical energy technologies (low-cost, high impact) in African rural and peri-urban energy markets. 

Start: Q1, 2018 Duration: Ongoing

- d. Engage and support African countries to map desired shifts of electric and non-electrical RE energy options over time and integrate these desired trajectories into national energy strategies, plans, and programmes. 

Start: Q4, 2017 Duration: Ongoing

## WORK AREA 2.4: IMPROVING ENERGY EFFICIENCY.

This Work Area will place energy efficiency as an integrated, priority component of all renewable energy efforts. Early activities include systematic assessment of existing energy policies, regulations, standards and incentives measures with a view to identify best practices and particularly successful approaches. Based on countries' choices of policies, regulations and standards, activities will be pursued to help assess both costs and gains, as well as international funding requirements.

**Outcome(s): *Energy efficiency measures integrated with most renewable energy efforts and increased awareness of importance of energy efficiency among general populations***

**Action Items**

a. Assess energy efficiency policies, regulations, standards and incentives measures in African countries, as well as in other countries as appropriate.  

Start: Q4, 2016 Duration: Ongoing

b. Establish and/or enhance energy efficiency standards that are conditional to and integrated with results-based and other RE investment incentives.  

Start: Q1, 2017 Duration: Ongoing

c. Determine needs for international financial support for efforts by African countries to develop, improve, and finance bold energy efficiency measures and national strategies, and facilitate channeling of such funds, as appropriate.   

Start: Q1, 2017 Duration: Ongoing

## **WORK AREA 2.5: ENHANCING DOMESTIC RE TECHNOLOGY MANUFACTURING, ASSEMBLY, DEPLOYMENT AND OPERATIONS CAPACITY.**

This Work Area recognizes that African countries should, over time, build capacities for domestic and continental manufacturing of renewable energy technologies for job creation, improved incomes and economic diversification. Activities will focus on building manufacturing capacity via strategic South-South and North-South collaboration in specific ventures that guarantee local access to relevant technologies, while maximizing local employment along RE value chains. Other activities will mobilize financial support for establishment of special manufacturing sites featuring RE and related industrial clusters.

**Outcome(s): *Increased development, manufacturing and deployment of RE technologies in Africa and establishment of robust and effective innovation systems with long-term planning horizons***

**Action Items**

a. Design and enhance RE technology value chains in countries as appropriate.    

Start: Q1, 2017 Duration: Ongoing

b. Initiate long-term international partnerships (South-South and North-South) for establishing and strengthening RE technology manufacturing, assembly and deployment capacity and access to technology for transformative change.    

Start: Q1, 2017 Duration: Ongoing

c. Support efforts to maximize endogenous job-creation impacts of RE deployment in particular for women and youth.  

Start: Q1, 2017 Duration: Ongoing

## WORK AREA 3: CAPACITY MOBILIZATION/BUILDING ACROSS STAKEHOLDERS AT ALL LEVELS

This Work area recognizes capacity mobilization and capacity building as fundamental requirements and building blocks, and that such efforts need to be well integrated with all other activities. Early activities include formalization of ambitious capacity building programmes at the continental level with establishment of international cooperative agreements including exchanges, training and financial support. For the longer term, actions include the creation of a self-supporting Africa Renewable Energy Institute for both research and training purposes, to directly serve and benefit from the AREI Delivery Unit. The institute, for which a separate proposal is under preparation, will support young African professionals, both on the continent and outside, to serve the Initiative and constitute a growing network of African experts. Activities furthermore include enhancement of RE training at universities and numerous public and private institutions – including boosting of on-the job training and apprenticeships.

**Outcome(s): *Critical capacities and skills at all levels and aspects are mobilized, developed or strengthened***

### Action Items

- a. Formulate and implement long-term capacity building and skills mobilization programmes at both continental, sub-regional and national levels with a special focus on apprenticeships and technical skills development, as well as inclusion of women.   
Start: Inception Duration: Ongoing
- b. Mobilize and channel financial support for scaled up RE education and training at universities and other relevant institutions.   
Start: Q1, 2017 Duration: Ongoing
- c. Integrate an on-the-job training component (including apprenticeships) into all government and donor supported projects, and provide for exchanges of both operational staff and managers across countries and continents.   
Start: Q1, 2017 Duration: Ongoing
- d. Build partnerships with centers of excellence within and outside of Africa with a view to accelerating RE technology and knowledge transfers.   
Start: Q4, 2016 Duration: Ongoing
- e. Develop proposal and secure funding for establishment of an African Energy Institute with capacity to produce, access and communicate evidence that informs policy-making.   
Start: Q1, 2017 Duration: Ongoing

## WORK AREA 4: FUNDING AND FINANCING

Activities in this Work Area are primarily concerned with enabling the utilization of public and concessional funds to create appropriate financing instruments that address the main barriers and risks presently holding back both public and private investment. The use of public funds in this way yields the twin advantages of leveraging larger investments while maximizing access to credit for both public and private investors and renewable energy project developers. This approach is in line with obligations and commitments of developed countries under the UNFCCC to cover incremental costs for mitigation in developing countries.

As specified in the Action Items below, important tasks of this Work Area are to 1) fund the establishment and operationalisation of the Delivery Unit of AREI as a coordinating and facilitating entity 2) enable supportive activities aimed at generating funding (including assistance and building capacities of African countries to directly access international funds such as the Green Climate Fund) as well as enhance access to credit, and 3) to secure and, when appropriate, channel funding through the AREI Trust Fund for project support and incentives for renewable energy investments at country levels (see part 8.4).

**Outcome(s): *Adequate public funding mobilized to meet AREI needs as identified in Work Areas and enhanced access to credit for both public and private investors and RE developers.***

### Action Items

- a. Secure funding to operationalize the coordinating and facilitating functions of the AREI Delivery Unit    
Start: Inception Duration: Ongoing
- b. Assess costs of policy packages including fiscal incentives for RE promotion in different African country contexts and in accordance with the different AREI Work Areas, including options for shifting from fossil fuel subsidies to renewable energy support.    
Start: Q4, 2016 Duration: Ongoing
- c. Assist countries to identifying country needs and developing proposals for the Green Climate Fund and other international funding sources to enable their RE efforts.    
Start: Q4, 2016 Duration: Ongoing
- d. Mobilize at least USD 10 billion in financial commitments in the form of public finance grants from developed countries, the Green Climate Fund and other international climate finance sources to meet pre-2020 requirements for incentivizing RE investments.     
Start: Inception Duration: Up to 2020
- e. Build awareness and facilitate access for investors and developers to public sources of favorable, concessional finance for RE from African, developed and other developing country governments, multilateral development banks, and other public sources.      
Start: Q3, 2016 Duration: Ongoing
- f. Make interventions that strengthen the confidence in lending for RE investments by African commercial bank and other credit institutions through dedicated payment default risk mitigation, outreach, awareness raising, capacity building, etc.      
Start: Q4, 2016 Duration: Ongoing
- g. Strengthen access to private sources of funds that support investments and development of renewable energy in line with priorities and guiding principles of this Framework and explore complementary sources of investment capital, including private donations.      
Start: Q3, 2016 Duration: Ongoing

## WORK AREA 5: PROJECT DEVELOPMENT SUPPORT

Many of the Core Activities described above are of the 'programmatic' kind, dedicated to accelerated investment flows, expanding access to investment financing, and establishing conducive policy and regulatory conditions for RE projects. However, the AREI recognizes the need to also strengthen capacities in participating countries for preparation and implementation of concrete projects. Experience throughout Africa confirms that project developers often need some form of assistance at critical stages in a given renewable energy project cycle – from initial conception and prefeasibility assessments to self-sustained delivery of products and services. This is not least true for smaller and less experienced developers, including community associations, cooperatives and smaller companies. Accordingly, key activities to be orchestrated by the Delivery Unit (working closely with other partners) will be to establish and operate a strong project development support facility that can receive, review and help refine/improve new RE project proposals from a wide range of actors (both public and private, and ranging from community to country levels). While this function cannot serve the whole continent in the short term, it will play a key role in catalyzing early action and should eventually be extended to cover the continent through strategic replication at country or sub-regional levels.

In addition to support for the development of project designs, the AREI may also provide various forms of direct financial support channeled through its Trust Fund to enable implementation of projects that for lack of funding reasons have either been abandoned or delayed. This support function will be based on a prior formalization of systematic procedures for issuing Requests for Proposals (RFPs), criteria for assessing project eligibility, the determination of due diligence of financing and other support needs combined with assurance that projects adhere to established AREI environmental social safeguards and overall AREI guidelines.

African countries and other institutions will be invited to provide suggestions of projects for consideration and screening. Selected projects satisfying AREI criteria will be considered for further support. A fundamental condition for AREI support is that the support be *new and additional* (i.e., the project would not come about without added support directly via the AREI Trust Fund, or as new and additional resources through other, already established channels). AREI and other institutions should only take credit for the added generation capacity in proportion to the top-up, additional leveraging in order to avoid double-counting.

As a general rule, programmatic, policy and incentives support are the main focus of AREI and will increase vis-à-vis direct RE generation project support as the AREI moves into Phase II. Of the funds allocated for direct project support a considerable part should be devoted to small-scale, decentralized and community-oriented projects.

Key action points covering this Work Area are presented below:

<b>Outcome(s):</b>	<b><i>Higher number and better quality RE project proposed, financed and implemented with improved understanding of results, including unanticipated effects</i></b>
<b>Action Items</b>	
a. Establish RE project development support service at the AREI DU, embedded within in a larger network of AREI and its affiliated institutions, RE centers of excellence and individual expertise.	
Start: Q4, 2016 Duration: Ongoing	

- b. Formalize criteria and methodology for assessment of AREI eligibility (new and additional, environmental and social safeguards, local participation, pro-poor).  
Start: Q2, 2016 Duration: 3 months 
- c. Invite all African countries to submit requests for proposals towards support of RE projects that satisfies AREI criteria.  
Start: Q3, 2016 Duration: Ongoing 
- d. Review and select country proposals  
Start: Q3, 2016 Duration: Ongoing 
- e. For approved projects requesting support through AREI, release funds (grants or concessional credit) through the AREI Trustee. Appropriately record marginal contributions (funding and energy provision) for projects deemed eligible under AREI but with additional funding provided through other channels than the AREI trust fund.  
Start: Q1, 2017 Duration: Ongoing 
- f. Establish RE project development support services at sub-regional and country levels.  
Start: Q2, 2017 Duration: 12 months 
- g. Establish semi-autonomous monitoring and evaluation system for projects funded by AREI, including ex-ante and ex-post evaluations.  
Start: Q3, 2016 Duration: 3 months 

### 8.3 CROSS-CUTTING SUPPORTIVE ACTIVITIES BY AREI DELIVERY UNIT AND COLLABORATING INSTITUTIONS

In addition to the Core Activity clusters, a number of complementary, facilitative and cross-cutting work areas are essential for adhering to the principles and goals of the *AREI Framework*. These critical work areas constitute a vital 'bridge' between the core activities and the expected results.

#### Cross-cutting activities



#### WORK AREA 6: SOCIO-ECONOMIC AND ENVIRONMENTAL ASSESSMENTS OF RE TECHNOLOGIES

Renewable energy technologies have different characteristics and thus different implications on the sites and communities where they will be deployed. The AREI Framework furthermore recognizes that given the scale and associated challenges, it is important that safeguards, participation, and equity principles are recognized and included from the outset. This calls for a number of early activities such as formulation of overriding principles for environmental and social safeguards, elaboration of procedures for local social and environmental impact assessments at the individual project levels as well as procedures/systems for systematic assessment of RE technologies as such, both in terms of environmental implications (lifecycle analyses, recyclability, etc.) and social implications (e.g., impact on women and poor people). Early activities in this work area also include establishment of RE resource and technology data collection and support to countries in their RE technology needs assessments.

**Outcome(s):** *Renewable energy technologies deployed in manners that benefit local communities and do not harm the environment, while promoting technology innovation and precautionary needs assessments.*

#### Action Items

- a. Establish a network of RE resource and technology data collection and support accessible to governments, investors, project developers and other RE stakeholders to facilitate RE technology needs assessments and prepare country specific RE technology action plans. ■

Start: Q1, 2017 Duration: Ongoing

- b. Formulation of Initiative level principles and procedures for environmental and social safeguards, including procedures for participatory technology assessments in all projects. ■

Start: Q2, 2016 Duration: Ongoing

- c. Establish standing capacity for socio-economic and environmental impact assessment of RE technologies in all African countries, including evaluation of impact on women, vulnerable groups as well as issues of recyclability and lifecycle impacts. █
  - Start: Q1, 2017 Duration: Ongoing
- d. Project-, site- and technology specific assessments and studies through commissioned research and local participation. █ █
  - Start: Q3, 2016 Duration: Ongoing
- e. Establish and strengthen partnerships with relevant technology transfer support facilities and innovation hubs that can enhance access to best available, environmentally and socially appropriate technologies. █ █
  - Start: Q1, 2017 Duration: Ongoing

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## WORK AREA 7: MULTI-STAKEHOLDER ENGAGEMENT

The multi-faceted nature of AREI's implementation strategy involves and will require mobilizing all types of stakeholders. Genuine community, civil society participation will be integral parts of the multi-stakeholder engagement components of the Initiative as will participation by the private sector (SMEs and larger companies), academia and other stakeholders. Activities in this Work Area will strengthen participation across all core activities, from local to continental levels. Early activities will include formulation (through multi-stakeholder processes) of AREI principles for participation, mapping and consideration of relevant experiences and models in other multilateral fora, establishment of systems for sharing of effective methodologies and procedures for multi-stakeholder engagement, and organizing of regular meetings and conferences at both national, sub-continental and continental levels.

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**Outcome(s): *Broad set of stakeholders actively involved in shaping the AREI ensuring broad ownership, sustainability and continuous improvement of AREI's work.***

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### Action Items

- a. Identify, deploy and continuously improve effective multi-stakeholder participatory methodologies, including formulation of principles for participation under AREI. █
  - Start: Q2, 2016 Duration: Ongoing
- b. Organizing of regular meetings, conferences and other forms of interaction (including on-line fora) with different stakeholders across continental, sub-regional and national levels. █ █
  - Start: Q2, 2016 Duration: Ongoing
- c. Strengthen capacities of government agencies and civil-society "watchdog" organisations in monitoring compliance of RE standards and AREI procedures and rules. █ █
  - Start: Q2, 2016 Duration: Ongoing
- d. Systematic mapping and application of best practices for social and environmental safeguards and multi-stakeholder engagement from other settings such as the UN Committee on World Food Security, national and multilateral institutions, civil society processes etc. █ █
  - Start: Q2, 2016 Duration: Ongoing

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## WORK AREA 8: WIDER CONTEXT MONITORING AND ASSESSMENT OBSERVATORY

This Work Area highlights the need for the AREI to continually monitor and assess changing realities and contexts that may impact on the Initiative – both in terms of opportunities and threats. Activities include establishment of appropriate, dynamic convening spaces, both within and beyond the Delivery Unit/Steering Committee, involving multiple stakeholders and experts.

**Outcome(s):** *Enhanced capacity of the AREI governance and management system for early detection and effective responses to emerging opportunities for accelerated deployment of RE in Africa – including new funding and investment flows -- as well as early detection of new risks, threats and challenges.*

### Action Items

- a. Set up capacity within and outside of the Delivery Unit to continuously track and analyze the implications of critical events and trends occurring in the context of AREI implementation at national, continental and global levels. █

Start: Inception Duration: Ongoing

- b. Deliver high level advisory services on RE policy and investment implications of major implementation context developments at the request of key RE decision makers and other stakeholders. █

Start: Q4, 2016 Duration: Ongoing

- c. Convene regular consultations on strategic issues with the full range of stakeholders and experts to identify changing realities and promote innovative, practical solutions. █ □

Start: Q1, 2017 Duration: Ongoing

## WORK AREA 9: COMMUNICATIONS AND OUTREACH

As implementation of the AREI gets underway, it will be crucial to communicate and reach out to all stakeholders, both internally and externally. Effective communications capacity and outreach plans will involve all African countries and substantially enhance prospects for AREI's ultimate success. AREI will engage different stakeholders in the process, including opinion-leaders and artists, ensure multi-directional flows of information and experience sharing, and facilitate implementation of actions across all other Work Areas.

**Outcome(s):** *Enhanced and sustainable multi-stakeholder support for AREI expressed in sustained flows of funding, political and civil society endorsements. Resources and services of AREI easily identified and used by various stakeholders.*

### Action Items

- a. Set up specialized communications and outreach section within DU for effective web-based, media and internal communication flows, as well as for effective user/stakeholder interaction and participation. █

Start: Inception Duration: Ongoing

- b. Establish protocols/rules for production and dissemination of AREI-related communication materials and events. █

Start: Inception Duration: 6 months

- c. Develop short, medium and long-term media and communications strategies targeting key audiences and delivery of high quality activity reporting and general awareness campaigns via appropriate multi-media channels. █ □

Start: Inception Duration: Ongoing

## **8.4 ACTIVITIES INCLUDING FUNDING OF INCENTIVES AND INVESTMENTS THAT DIRECTLY ENABLE DEPLOYMENT OF RENEWABLE ENERGY**

The various supportive activities by the AREI Delivery Unit, individual countries and collaborating institutions outlined in sections 8.2 and 8.3 above will provide the basis for establishment of significant flows of targeted and effective public funding to accelerate renewable energy deployment in line with AREI principles.

These flows of public funds – to a significant degree international climate finance – will fill gaps and leverage significantly larger volumes of both private and public investments.

In particular Work Area 2.1: Provision of long-term investment security, Work Area 2.2: Upgrading existing national grids and accelerating mini-grid rollouts, and Work Area 5: Project development support will entail considerable public funding flows.

It is estimated that at least USD 10 billion of public funding in the form of grants will be needed to meet the AREI Phase I target of 10GW new and additional RE generation capacity in accordance with the AREI Framework.

A large part of these funds should be channeled through the AREI Trust Fund, to ensure African ownership and facilitate coordinated actions and involvement of most African countries already during AREI Phase I.

The detailed estimations of funding needs and elaboration/identification of appropriate incentives and support frameworks will be a priority task as early activities for the Delivery Unit and collaborating institutions. Work has, for example, already been initiated to elaborate possible schemes for supporting country-wide payment guarantees to provide long-term investment security. These and other transformative measures will be further elaborated and considered during the AREI Establishment phase.

## 9 ACTIONS PHASE II: 2020-2030

Phase II of the Africa Renewable Energy Initiative envisages an ambitious acceleration of the activities undertaken during Phase I. During this ten-year period it is envisaged that:

- At least 300 GW of new and additional renewable energy capacity is added as a result of the AREI efforts.
- All African countries are involved in the AREI, well underway to significantly expand their renewable energy capacity; no country is left behind.
- A number of bold, comprehensive policies and incentives models have been tried and demonstrated to work well during Phase I and early parts of Phase II, enabling rapid replication and adjustment to national contexts by other African countries. Nationally appropriate support mechanisms and comprehensive national policies are established across the whole of Africa.
- The first phase of the Africa RE Initiative and the call by the African Group of Negotiators for a global renewable energy support programme within UNFCCC have created a momentum where international cooperation, including provision of sufficient international public funds, enables the full roll-out of the Initiative.

The detailed actions for Phase II will need to be determined and elaborated during Phase I and revised on a continuous basis during Phase II. It is assumed that the Activity clusters presented above will remain relevant.

## 10 FUNDING NEEDS

For the **immediate 12 month establishment phase** an estimated USD 6,7 million/Euro 6 million is needed (see Establishment phase budget).

For **Phase I** (48 months, 2017-2020) it is estimated that USD 87 million will be needed to cover the costs associated with *supportive activities* under the AREI governance structures (i.e., both DU operations and associated supportive activities).

For funding of *incentives and investments* during phase I, at least USD 10 billion will be needed for grants-based efforts including incentives, comprehensive policy programmes (such as costs for payment guarantees/feed-in tariffs, subsidies, grid extension, etc.) and direct support for RE investments, including projects. At least an additional USD 5 billion is envisaged as concessional credit to enable the AREI and countries to, in turn, make favorable loans available to public and private developers that would otherwise have difficulty obtaining commercial credit on reasonable terms.

The more precise determination of public funding needs constitutes a priority task during the Establishment Phase and the early part of Phase I. A majority of the funds should be channeled through the AREI Trust Fund to ensure efficiency, transparency and coherence.

Funding needs for **Phase II** (2020-2030) will be significantly higher to enable the full Africa-wide scale-up of ambition to reach at least 300 GW of new RE generation capacity by 2030. Exact costs estimates, based on the various choices of incentives and support mechanisms as well as other core activities, will be a prioritized task for the AREI during the first part of Phase I.



Africa Renewable Energy Initiative

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