SUMMARY REPORT

AREI REGIONAL CONSULTATION
FOR NORTH AFRICA

AREI
Africa Renewable Energy Initiative

Cairo, Egypt, 8-9 October 2018
In accordance with the approved Africa Renewable Energy Initiative (AREI) Work plan and budget for 2017-18, five regional consultations were to be organised by countries in the AREI Board representing the five regions of Africa – Chad, Egypt, Guinea, Kenya and Namibia – in collaboration with the AREI Independent Delivery Unit (IDU). The purpose of these consultations is to enable increased understanding of and engagement with AREI by governments and stakeholders in all African countries. Three regional consultations have been implemented to date. This report summarizes the discussions and key outcomes of the third meeting, held at Intercontinental Hotel, Cairo, Egypt on 8-9 October for the North Africa region, under the auspices of the Egyptian Ministry of Foreign Affairs and the Ministry of Electricity and Renewable Energy, in collaboration with the AREI IDU.

Background to AREI
The Africa Renewable Energy Initiative (AREI) is a transformative Africa-owned and Africa-led effort to accelerate, scale-up and harness the continent’s huge potential in renewable energy sources.

Endorsed by all African Heads of State and Government through the African Union, the initiative was launched at COP21 in Paris 2015. AREI will enable Africa to quickly move to modern distributed energy systems that are renewable, smart and able to both feed industry and reaching people currently without adequate access to modern energy services.

The initiative’s primary power lies in supporting African countries move towards transformative national policies and vastly increased renewable energy ambition – and in helping mobilise the international public funding necessary to drive these efforts. AREI recognises that efforts must be country-driven, with involvement of all stakeholders. Policy programmes as well as renewable energy projects that are in line with AREI’s ambitious people-centred, environment and development-oriented criteria can be attributed as AREI compliant.

Through AREI, African countries are taking the lead and charting a course towards Africa becoming the first renewable energy continent.

As AREI is now becoming fully operational, a top priority is to enhance direct engagement with all African countries.
Goals, objectives and programme

The North Africa regional consultation had multiple and interrelated goals and objectives:

- Ensure awareness of AREI by all countries in each region
- Build ownership and basis for broad-based participation in each country
- Provide direct links to key persons (AREI focal points) in each country and consolidate contacts and networks across countries, stakeholder groups, and professions.
- Pooling of information and enhanced mapping of renewable energy project pipeline in countries and in the region, including initial assessment of priorities on both country and regional basis.
- Provide opportunity for sharing of best practices and pioneering examples of policy interventions that other countries in the region may consider
- Contribute to mapping of barriers and needs, including public funding needs for accelerated renewable energy investments.

The programme (see Annex 1) was designed to meet these objectives, and to enable as much interaction and active participation as possible.

Participants

In line with the AREI Framework, the Consultations should ensure broad participation by multiple, and particularly African stakeholders. The North African consultation gathered in total 40 participants including:

- Government officials responsible for renewable energy at ministries, renewable energy agency directors, and others
- Representatives of relevant African and international institutions (African Union Commission, the Regional Centre for Renewable Energy and Energy Efficiency
- Civil society, academia and private sector representatives
- IDU and technical experts

The consultation included participants from 5 of the 7 countries in the region. Nine of the 40 participants were women (see Annex 2 for a list of participants).

Programme and summary of discussions

The Consultation agenda was designed to encourage participation and interaction among all participants.

OPENING SESSION

Ms Safiatou Alzouma Nouhou, the new Director of the AREI Independent Delivery Unit (IDU) initiated the Consultation by greeting everyone welcome on behalf of AREI, and expressed her thanks to Egypt as host and the work of her predecessors Amb. Nafo and Dr Sokona.

She highlighted the uniqueness of AREI, and its ethos of African collaboration where countries and regions that are more advanced will inspire and help others catch up. Yet, advanced regions such as North Africa should benefit directly with AREI helping to mobilise support for even bolder, transformative programmes and projects, as well as scaled up support from the international community.

She concluded that the regional consultations with interaction across countries, stakeholders, and regions constituted an important basis for the future work.

Ambassador Wael Aboulmagd, Ministry of Foreign Affairs, greeted participants on behalf of the foreign ministry and expressed his gratitude to the work already done by the IDU as well as conveying his congratulations to Ms Nouhou for her position.
He recognised that Egypt has been fully committed to AREI since day one, with President El Sisi in a leadership role already in 2015. Egypt is fully supportive and sees its role as Board member as that of a representative for all the countries in the region. Hence the Regional Consultation was of great importance.

He furthermore recognised the devastating threat of climate change and that all African countries also need to formulate mitigation responses, in addition to adaptation measures. He concluded that AREI is the key African contribution in this regard, and a driver for the transformation of development models in all countries required to deal with climate change.

In closing Ambassador Aboulmagd emphasised that AREI is not primarily a project financing mechanism, but something much larger. It is a vehicle to build capacity, understand policy and legal options, and drive a vision where we can all benefit.

First Undersecretary Mr. Mohamed Omran, Ministry of Electricity and Renewable Energy, welcomed all participants and thanked the IDU for its work.

He concluded that the world has entered a new era of energy transition towards renewables and that Egypt was taking a lead, including through its full support for AREI.

He said that Egypt would be pleased to share its current experiences from ambitious investments in renewables with other African countries, and provided examples of the current situation:

Through its institutional framework and investment environment, Egypt has managed to attract both domestic and foreign investors with tariffs as low as 2.75 USD cent/kWh for solar and 3.17 USD cent/kWh for wind. Different mechanisms such as PPAs, feed-in tariffs, Build-Own-Operate, and reverse auctioning were part of this mix.

7650 km² had been allocated for renewables with an expected 35 GW of wind and 55 GW of solar. Currently the world’s biggest solar plant is under construction near Aswan, with a total capacity of 1,45 GW. Egypt is also planning for extensive domestic manufacturing capacity with the aim of producing 70% of windfarms by 2022 and over time the entire chain of solar PV components.

Mr Omran highlighted the importance of energy efficiency as well as regional integration, and showed that Egypt is already involving Africans from many other countries in its extensive renewable energy training programmes. He concluded that this was much in the spirit of AREI and declared the Consultation officially opened.

**WHAT IS AREI?**

The session “What is AREI?” provided an overview of the main features of AREI.

**AREI – from idea to operationalisation**

The IDU provided an account of the history of how AREI came into being.

As well as its unique nature of having a Board consisting of Heads of State representing each of the five African regions, proof of the significance of AREI and the issues of renewable energy. The deliberations to finalise the Governing Instrument had taken quite some time, but was now in place with the Initiative moving into a concrete operationalisation and implementation phase. Of high importance for the Heads of State had been to ensure the independence of AREI vis-à-vis other institutions.

With the recent recruitment of the new, permanent Director and her task to produce for the next Board meeting a multi-annual work plan and budget the Initiative was moving into a new phase. The experiences and input from the interaction with African countries in these consultations would be of great value for the development of these plans.
Overview and framing

The IDU explained how AREI outlines a vision of a new energy model that is fundamentally different from the past, centralised model of energy generation, and anchored in both addressing climate change and energy access. Through renewable sources of energy, which can be harnessed by communities and other actors everywhere, the new model can involve a huge number of new entities as both producers and consumers of energy with broadened ownership and participation. As costs continue to fall rapidly, renewable energy is now in many cases the least cost option. The overview presentation also outlined the goals, objectives and criteria of AREI and its nine distinct work areas.

Participants understood that AREI is not only about mobilization of funds.

One of the objectives of AREI is to help countries set up enabling environments to enable and attract investments. This can be done through policy support, capacity building, exchange of knowledge within regions and from outside, and through technology transfer. Partners have come up with pledges for financial support; a role for the IDU is to help countries prepare to attract these funds.

AREI Mapping

The IDU guided participants through the web interface and database under development for the gathering of data on initiatives, actors, policies, renewable energy related projects, programmes and interventions. This mapping will provide a largely Africa-generated baseline understanding of the current renewable energy situation on the continent.

The central mapping function will serve all actors on the continent, and would go much beyond the mere gathering of static data. The mapping would include data on development goals, indicators, actors, programmes and projects, regulations and policy processes as well as financial and funding conditions. Building on this data, the ambition is to provide tools that can map progress, capacities, gaps, trends, interests and motivations, as well as opportunities and barriers. This will facilitate targeted engagement and project partnerships to address the fundamental needs in specific country contexts. It was shown how the mapping would be undertaken at both the local, national and continental levels and participants with particular interest in the development of database and mapping methodology were invited to contribute to these joint efforts.

Transformative policy measures to accelerate renewable energy deployment in the region

This presentation provided numerous examples and data on the rapidly increasing cost competitiveness for renewables, and how the new renewable energy systems of the future also bring new qualities in terms of distributed and diversified ownership, scope for smart balancing of supply and demand across multiple renewable energy sources and storage solutions. The distributed, variable and granular nature of renewables require new kinds of grid planning with increased flexibility, but also allows for speedy, parallel implementation. This rapidly changing situation means that already now it is in many cases more expensive to keep old coal-fired power stations than to replace them with new-built renewables. For new-built wind and solar costs are currently 40% lower than for new-built coal in some African countries.

Some reflections were shared on the implications of the high CAPEX ratio for renewables, and ways to reduce long-term risk and enable safe investment environments for both public and private actors, delineating the different roles of these actors. AREI could play a key catalytic and supportive role in disseminating performance-based grand schemes as major vehicles for the accelerated transformation towards renewables for Africa.
THE CURRENT RENEWABLE ENERGY SITUATION IN THE REGION

*Project pipeline overview* ([download presentation](#))

The IDU set the context for the overview of the regional situation by presenting the current analysis of the project mapping. It was pointed out that this work was done on limited data, so far mostly provided by international donors, and that over time an important task of AREI would be to ensure reliable and largely African-generated data.

It could be concluded that with current trends, 10 GW of new renewable energy by 2020 in Africa would not be a problem. What is important, however, is to ensure that there is regional balance and equity, and that the correct institutional and policy foundation is laid for the much more demanding second phase to reach 300 GW and universal access by 2030.

The high inequality, both between regions and within regions (only 8 countries make up more than 78% of the generation capacity in the current project pipeline across Africa) as well as the high costs for renewable energy compared to other regions were also pointed out.

*Country presentations*

Each of the five countries provided overview summaries of their renewable energy situation over the course of the two days. Much of the rich details from these sessions are available as Powerpoint presentations for download and limited snapshots of each country's presentation can be found in Annex 1.

AREI AS VEHICLE FOR ENHANCED QUALITY AND ACCELERATED FUNDING AND DEPLOYMENT OF RENEWABLE ENERGY

*– The role of AREI criteria and AREI attribution of projects and programmes*

In order to handle the process of assessment of Category A and B projects, the IDU has developed a set of targeted questions in relation to the AREI Criteria's 'Essential Requirements' and a database to handle the information.

Participants were provided with an account of how the gathering of data for assessment will function, with snapshot views of the database and web interface under development. Participants were also informed of the work undertaken to further operationalise the AREI Criteria and derive qualitative analysis of Category A and B projects beyond the essential requirements, as well as plans to involve stakeholders in participatory processes to weigh criteria in the multi-criteria analysis tools under development. ([link to powerpoint presentation](#))

It was clarified that some partners had already declared that they would align their bilateral efforts to align with AREI as the overriding, African framework.

*Recommendations*

During the discussions, participants shared their views on concrete progress and opportunities for collaboration in the region and with IDU. To this end a series of recommendations has been formulated on the way forward (see Annex 2)
CLOSING OF THE CONSULTATION

AREI IDU Director Ms. Nouhou concluded the consultation by thanking everyone for having participated and expressed her hope that there would be extensive, fruitful collaboration in the same conducive atmosphere as AREI moves forward. She said she had appreciated the many challenging questions which was a sign of commitment and engagement, and hoped everyone would leave Cairo with a much deeper understanding of AREI and its potential. She also reminded everyone that countries would need to determine two AREI focal points from the areas of energy and environment respectively. She also thanked the Government of Egypt for the hosting of the meeting and fruitful collaboration with the IDU.

Eng Mohina from the Ministry of Electricity and Renewable Energy concluded that AREI symbolised the African continent moving forward as one country, offering numerous win-win opportunities. He reiterated Egypt’s strong commitment to AREI and First Undersecretary Omran’s offer to host a technical meeting and declared the consultation ended.
Annex 1 – Country Presentations

Egypt – country presentation  [download presentation]

Mr Ahmed Mohina, Ministry of Electricity and Renewable Energy, presented the Egyptian context, complementing the overview provided by Under-Secretary Omran in the Opening session.

Mr Mohina explained that Egypt in 2016 approved a new strategy – Energy Sector 2035 – with a target of 37% renewable energy by 2035, which was subsequently updated to 42% along with an energy efficiency target of 18%. The current installed capacity is 54,5 GW with an electricity share per capita of 1950 kWh and an electricity access rate of 99,7%.

In implementing the current strategy, Egypt has recently issued a new Electricity Law (2015) which will establish a gradually liberalized electricity market. Main features include establishment of a Transmission System Operator (TSO), encouraging private sector contribution in generation and distribution, supporting renewable energies, cogeneration and power generated from secondary resources, and supporting energy efficiency and demand side management.

Mr Mohina listed several government measures in support of renewables, including load allocation, establishment of long-term Power Purchase Agreements, various government guarantees, and custom duties of only 2%. In his presentation and ensuing discussions, the Egyptian experience from feed-in tariffs (FiT) were highlighted. The FiT system for wind and solar PV from 2014 caters for instalment capacities of less than 50 MW (including small instalments such as residential rooftops), while for larger projects Egypt is favouring reverse auctioning. The streamlining of the FiT through a central ‘one-stop-shop’ unit is to streamline the process for investors.

Mr Mohina’s presentation clearly showed the importance of far-reaching policies to create conducive, enabling environments for investments – including the localisation programme for design, installation and manufacture of electrical equipment; Energy efficiency policies and incentives (such as improvement of power plant efficiency, distribution of LED lamps, standards, awareness raising campaigns); and interconnection measures with other regions.

He concluded by reiterating the importance of AREI for Egypt, and suggested several ways Egypt could cooperate with AREI. These include trilateral cooperation on:

- Capacity building and training in the field of Wind & Solar Energy.
- Transfer experience in the field of policy development and preparing RE projects (contracts, feasibility studies etc.).
- Assessment of wind & solar potentials (Atlas) for African Countries.
- Providing Components of electrical equipment.
- Implementing RE projects.

In terms of Egypt’s own needs, Mr Mohina suggested AREI may provide support for:

- Mobilizing the investments required for large RE projects (Governmental & Private Sector) to achieve the 2035 strategy of 42% renewable energy and Egypt’s commitments to reduce emissions.
- Enhanced transfer and access to modern technology.
- Technical assistance to successful liberalization of the RE energy market, and
- Capacity building.
Ms Hind Abdaoui, Ministry of Energy Mines and Sustainable Development, presented the Moroccan experience on rapid promotion and implementation of renewable energy. She said Morocco had committed to an NDC of 42% reduction of greenhouse gases by 2030, which would equal 523.5 million tonnes of CO2 equivalent emissions for 2020-2030. This would take place while net energy demand and use were on a steady rise: there had been a 49% increase (more than 5% annual growth) in electricity demand between 2009 and 2017, with now total installed capacity of 8.8 GW. Close to 1 GW of the 3.5 GW added since 2008 were renewable energy sources.

She explained that Morocco is strongly committed to renewables as tools for both economic development, measures to combat climate change and a means to decrease energy dependence. Through clear strategies and policy objectives, including strong focus on energy efficiency (20% target by 2030), the earlier renewable energy target had even been further strengthened to now 52% by 2030 (20% solar, 20% wind and 12% hydro). Projected investments in the energy sector 2016-2030 amounts to USD 40 billion and 10 GW added generation capacity.

She furthermore explained how Morocco is investing in a mix of flexible power sources to address intermittency challenges and increase flexibility in handling peak demand – both through natural gas and renewable energy driven pump storage solutions.

Morocco is furthermore strategically located as a hub for interconnection between Africa and Europe, with grid connections to both Spain/Portugal and Mauritania and Algeria.

The Moroccan experience furthermore shows the importance of regulatory, legal and institutional reforms and coherence, which has significantly contributed to the favourable environment for renewable energy deployment in the country. Ms Abdaoui also showed how Morocco as a pioneering country was now in position to export and share its experiences with other countries in both Africa as well as Europe and elsewhere. She said Morocco would be keen to work closely with AREI to facilitate and accelerate the spread and uptake of appropriate policies, capacity and experiences across Africa.

In the following discussions, AREI IDU Director Ms Nouhou inquired to what extent the Moroccan domestic private sector had been involved, and to what extent there was a long-term strategy towards local manufacturing of RE technologies. This was indeed part of the Moroccan overall approach to renewables, with an ambition to move from presently minimum 30% domestic participation to 70% by 2035. There are also plans to increase the domestic manufacturing to 80% of the value chain.

On the question of what were Morocco's key advice and lessons learned of relevance to other countries in the region as well as Africa as a whole, Moroccan delegates reflected that clear, stable legal frameworks and focus on funding were key. Through the guaranteed investment climate offered by PPAs, there had been unprecedented growth in the sector. Morocco had furthermore added technical performance guarantees to new smart 'Double PPAs' which had been of great significance and something other countries were now exploring.

On the issue of social and environmental safeguards and stakeholder participation, the Moroccan experience was conclusive in the fundamental importance of involving and raising awareness across the population. MASEN, the Moroccan renewable energy agency, was now devoting considerable efforts into social projects and outreach, with the result that youth were strongly favourable to RE and with citizens increasingly seeing renewables as drivers for job creation and development. Both private sector and civil society organisations, and especially women's organisations, had been heavily involved in the development of the current policy environment.
Ms Amel Ayadi Ep Nejim, Direction des Etudes des Energies Renouvelables et Efficacité Energétique, presented the first part of the Tunisian renewable energy situation. She reflected that the international context was now that of moving countries to complete overhauling of their energy strategies with renewables at the core to meet rising energy demands while addressing climate change. In the case of Tunisia, the extremely high dependence on fossil fuels (97% of electricity and 99% of overall energy use) and an energy deficit projected to escalate to 85% by 2035 under business as usual, calls for far-reaching reforms.

The country has thus started to plan for a strong orientation towards renewables, with the goal of reaching 30% of electricity production from solar energy by 2030 (3.5 GW to be added 2017-2030 with overall investment of around €4 billion by 2030). The projected renewable energy mix by 2030 would constitute 46% wind, 37% centralised solar PV, 10% decentralised solar PV, 4% CSP and 3% biomass. Other efforts include a 400 MW storage pumping project, high-voltage sea-cable connection with Italy, and the development in stages of smart grids (for wide-spread deployment after 2020).

She concluded that the implementation of the renewable energy strategy must respond to how to manage intermittency, increase the integration rate, absorbing overproduction, and how to secure financing.

Mr Baccari Nafaa, Director of Renewable Energy at the National Agency for Energy Management (ANME) complemented the Tunisian presentation by providing additional insights on the policy and implementation context to make such a sharp turn from almost 100% fossil fuel dependence. One key action had been the organising of a stakeholder conference in 2017 with more than 400 private, public and civil society participants to identify barriers and opportunities. Some of the barriers identified included:

- Long and complex licensing procedures
- The absence of an independent regulatory authority for the electricity sector
- The reluctance of investors and lenders to accept the provisions of PPAs (the guarantee of the state, political force majeure, change in law, direct agreements...)
- The division of responsibilities between the Technical Commission for Special Production of Electricity and the Technical Commission for Renewable Energies in the context of the granting of concessions;
- The difficulty for renewable energy investors to access sites owned by the state
- The lack of legal possibility for project developers to sell electricity from renewable energy to large electricity consumers

Building on the conference, the Tunisian Solar Plan (TSP) was subsequently approved by the Ministerial Council in February 2018 which is composed of several stages and parts: From simplified procedures for projects below 1 MW to authorisation system for projects between 1 and 10 MW PV/30MW wind, and concessional regimes for larger projects.

Further measures to accelerate the implementation of the TSP include the creation of an independent regulatory authority for the electricity sector by the end of 2018, provision of the Fond de Transition Energétique (FTE) with legal personality and financial autonomy, changing the status of the ANME to make it easier to access international climate finance, implementation of a helpdesk within ANME, and the establishment of a monitoring and evaluation mechanism for the action plan.

Mr Baccari concluded by highlighting several new policy programmes that Tunisia is now just starting to implement: The Social photovoltaic program for households with low electricity consumption (PVSOCIAL), Programme to equip public buildings with photovoltaic installations under the PVBATIPUB self-production regime, and the Photovoltaic program for households with average electricity consumption (PVECONOMIC).
Dr. Hamid Sherwali, Authority of Renewable Energy Authority of Libya (REAoL), presented the Libyan renewable energy context. He explained that Libyan government has invested heavily in its electricity infrastructure over the past decades with the General Electricity Company of Libya (GECOL), its sole national power utility, as key player. The combination of an oil rich nation with a policy of universal electrification and a power utility with stringent criteria for expansion planning has resulted in a robust power transmission network and ambitious undertaking of power generation plant constructions. Most of this power generation is produced through 15 thermal power plants of which 14 are situated along the coast. Since 2012 the electricity generation has remained stable, running between 36 and 38 TWh. Compared to other countries in the region, Libya has the highest per-capita and residential electricity consumption, and a 100 % electrification rate.

Over the last decade, Libya has transitioned to a reliance on natural gas (now 80%) from heavy and light fuel oil which used to dominate power generation. Due to the high costs for both import and production, power generation from oil are expected to phase out, with a recognition that renewables will need to play a decisive role in the power mix. In fact, PV generated power is now 2/3 the cost of natural gas production.

Thus, Libya has embarked on a trajectory towards renewables. Key measures include distribution of one million energy saving lamps in 2015 and 2017, the launching of a programme to replace electric heaters with solar heaters, and importantly, the preparation of a Strategic Plan for Renewable Energies Development.

The plan entails a shift from the current situation with of 100% of the grid connected electricity from fossil fuels to one with 22% renewable energy by 2030. In the period 2019-2021 there are plans for 850 MW solar PV and 400 MW wind, which by 2030 shall have increased to 300 MW CSP, 3350 MW solar PV and 850 MW wind. While no renewable energy is currently connected to the grid, already 350 small off-grid solar PV units have been put in operation to electrify rural areas. 20 small solar PV off-grid units used to provide electricity to health centres, and 10 hospitals were provided with medium-sized (more than 20 kW) solar PV off-grid units.

Wind and solar measurements have been assessed since 2004, providing good mapping data for both wind and solar atlases and showing an abundance of renewable energy potential. In order to harness this potential, multiple barriers need to be overcome, including capacity building, effective policy formulation and legislation, enhanced operation and maintenance, infrastructure improvements and establishment of a proper finance mechanism. This calls for electricity sector reform that can provide access of all players to contribute in generation, distribution and transmission systems without discrimination. To implement this strategic plan, Libya together with the World Bank has estimated the costs to about USD 5 billion. Partnerships will be essential and must be sound and transparent in terms of financial, legal and technical conditions.

Mauritania – country presentation

Mr, Bousseif Moud, presented the Mauritanian experience. He began by stating that Mauritania is currently exploring several opportunities towards a transition to independent energy supply. These include development of oil and gas exploration through Kosmos, Chevron, Petronas, Total, BP and others, as well as new natural gas discoveries along the Mauritanian coast. The Mauritian economy is much dependent on existing and new mining projects.

He explained that there are two main, government-connected, operators of the electricity sector: SOMELEC for the urban sector and the Rural Electrification Development Agency (ADER) for the rural sector. Electricity prices range from 8-15 cent €/kWh for the urban sector and 13-23 cent €/kWh in the rural sector.
Given the sparse population, Mauritania faces major challenges in terms of access to electricity, with limited grid connections (mainly powered by fossil fuels based thermal production). Of the 8100 communities in the country only 840 has more than 500 inhabitants.

Guided by several strategic framework documents (e.g. the Master plan for electricity transmissions and production and the Renewable energy promotion strategy developed with UNDP and IRENA), Mauritania’s energy development strategy is currently focused on:

- Increasing production capacity from local resources, mainly hydroelectricity and natural gas
- Development of the transmission network and interconnection with neighbouring countries
- Improving the share of renewable energies in the energy mix
- Implementing decentralized solutions in isolated areas

Near-term goals include reaching 100% electricity access in urban areas by 2020 (now 92.7%), and 40% access by 2020 in rural areas (now 12%).

Current expansion plans constitute 360 MW of additional capacity in electricity generation, a five-fold increase from the current 74 MW capacity. This added capacity would be composed of 180 MW thermal energy from natural gas, 35 MW of wind, 68 MW of solar and 18 MW of hydropower.

Projects planned for 2016-2020 include a 33% share of the Gouina 140 MW hydroelectric power plant, the 100 MW Boulanouar wind farm, the 50 MW Nouakchott solar plant, a number of hybridised power plants (both new and hybridisation of existing ones), and 1000 decentralised multi-service solar units with storage (3-5 kW each). However, there is potential for much larger renewable energy expansion since Mauritania has excellent wind and solar resources.
Annex 2 – Recommendations

The following recommendations for the way forward were made:

To the Countries:
- Encouragement to ensure the swift appointments of two AREI focal points per country (one from energy and one from the climate sphere) in accordance with the request issued by the AREI Chair.
- Accelerate country-based generation of input to the AREI mapping database including:
  - Country priorities in relation to renewable energy
  - Project pipeline data
  - Existing and planned policy overview
  - Actors and initiatives present in the country
  - Renewable energy related elements of NDCs
- Accelerate country-driven development and submission of both Category A (policies) and Category B (installations on the ground) projects for AREI attribution that are explicitly informed by the AREI Criteria.

To the AREI:
- Ensure enhanced interaction across regions with AREI serving as a vehicle for exchange and technical collaboration among African countries.
- Ensure that best practices in terms of clear, stable legal frameworks, policies, and funding are effectively captured and communicated by governments for wider sharing through AREI.
- Ensure targeted capacity building efforts are prioritised in the AREI portfolio of activities, including effective sharing of skills in project development, technology transfer and design of regulatory and incentives regimes.
- Encourage international partners in both North and South to contribute funds to AREI; as well as African governments and African philanthropists.
- Analyze the possibility of providing (even modest) grants, start-up funds and flexible and rapidly disbursed resources for pre-financing, feasibility studies and other enabling and catalytic measures.
- As an immediate step, take up the offer from Egypt to host a pan-African AREI meeting on feed-in tariffs, auctioning and other incentives.
MONDAY 8 OCTOBER

8:30 AM - 9:30 AM
Registration

9:30 AM - 10:00 AM
Opening and welcome
Ms Safiatou Alzouma, Director, AREI Independent Delivery Unit
Amb Wael Aboulmagd, Ministry of Foreign Affairs, Egypt
Dr. Mohamed Omran First Undersecretary, First Undersecretary for Research, Planning and Authorities’ Follow up, Ministry of Electricity and Renewable Energy, Egypt

Introduction to the meeting (including round of individual introductions)

10:00 AM - 10:30 AM
Refreshments

10.30-13.00
SETTING THE CONTEXT - WHAT IS AREI?
Presentations on the core features of AREI by Independent Delivery Unit members

Introduction
Ms Safiatou Alzouma, Director, AREI IDU

AREI from idea to operationalisation - Setting the context
Amb. Seyni Nafo, former Interim Director, AREI IDU

Overview of AREI – Work areas and overall framing
• Goals and principles - Vision of and planning for renewable energy futures and transformative policies for long-term investment security - Accessing and increasing availability of funding - Participation, people-centred energy and multi-stakeholder engagement
Mr Niclas Hällström, IDU staff member/original AREI Drafting team
Questions/discussion

AREI Mapping: Tools and approaches for African-driven mapping of initiatives, actors, policies, and projects
Prof. Lawrence Agbemabiese, IDU staff member/original AREI Drafting team

Open discussion: Clarification and reflections – How can AREI be useful for us?

1:00 PM - 2:00 PM
Lunch
THE CURRENT RENEWABLE ENERGY SITUATION IN THE REGION

Snapshot of current mapping of renewable energy projects in the region

Mr. Vivek Mittal, IDU consultant

Perspectives from each of the countries in the region on the renewable energy pipeline and current barriers and needs

Each country is asked to reflect and share what they consider key lessons and experiences for others in the region. Below points for consideration:

Current renewable energy situation
What is the current renewable energy situation in your country?
What is the current energy mix? How does the balance on and off-grid look?
What level of energy access does your country have (rural/urban/overall)?
What are assessments of financial needs for renewable energy in your country?
How does renewable energy relate to the climate agenda in your country? Are you involved in the formulation of Nationally Determined Contributions?

Current institutional context
What are the biggest hurdles for renewable energy in your country?
What are the biggest successes in deployment of renewable energy in your country?
What are your countries current priority interventions (policies, projects other)?
How are different stakeholders engaged in the renewable energy transition in your country? What is the situation in terms of social and environmental safeguards and assessments in your country?
Does your country have long-term plans for renewable energy? Is there any discussion about 100% renewable energy in your country?
How are you organised across sectors, ministries, stakeholders in your country?

Looking ahead
What policy schemes are in the pipeline? What would be the most significant advances your country could do in terms of comprehensive policy measures?
How could your country benefit from enhanced cooperation within the region?
How could your country benefit from AREI and continental efforts?
How can civil society and private sector actors work more closely with the government?

4:00 AM - 4:30 AM
Refreshments

TRANSFORMATIVE POLICY MEASURES TO ACCELERATE RENEWABLE ENERGY DEPLOYMENT IN THE REGION: EXPERIENCES FROM SOUTH AFRICA, GERMANY AND NEW INNOVATIVE SCHEMES

For AREI to succeed in supporting North Africa and the continent at large meet the bold goals of universal access and transition to renewable energy it is essential to draw on best practice and exploring new, innovative and bold policy schemes. What successful practices from other regions are relevant and applicable to the North Africa region?

Dr Tobias Bischof-Niemz, ENERTRAG and former Director of Energy, Council of Scientific and Industrial Research (CSIR), South Africa (video-link)

Discussion

6.00 PM
Conclusion of the day
TUESDAY 9 OCTOBER

9 AM - 9:15 AM
Introduction to the day

9:15 AM - 11:00 AM
THE CURRENT RENEWABLE ENERGY SITUATION IN THE REGION

Perspectives from each of the countries in the region on the renewable energy pipeline and current barriers and needs
Continuation of previous day’s session

11:00 AM - 11:30 AM
Refreshments

11:30 AM - 13:00 AM
AREI AS VEHICLE FOR ENHANCED QUALITY AND ACCELERATED FUNDING AND DEPLOYMENT OF RENEWABLE ENERGY: THE ROLE OF AREI CRITERIA AND AREI ATTRIBUTION OF PROJECTS AND PROGRAMMES

The role of programme/project attribution for mobilization of funding and enhanced quality
Niclas Hällström, AREI IDU
AREI Criteria and assessment methodology for programmes/projects submitted for attribution
Prof. Lawrence Agbemabiese, AREI IDU

Discussion and reflections from the region on project pipeline and AREI’s potential to leverage renewable energy deployment
IDU presentation and discussion of AREI Criteria and assessment for attribution and funding of AREI compatible efforts.
How can AREI help generate higher quality projects and leverage significantly enhanced levels of deployment and funding for policy programmes and projects on the ground?
What are current commitments, and what do countries in the region need?

1:00 PM - 2:00 PM
Lunch

2:00 PM - 3:30 PM
FOCUSED SHORT PRESENTATIONS AND DISCUSSIONS ON PRIORITY TOPICS IDENTIFIED BY PARTICIPANTS IN THE MEETING

Key topics identified by participants will be gathered throughout the consultation for group and/or plenary presentation and discussion

3:30 PM - 4:00 PM
Refreshments

4:00 PM - 5:00 PM
PRACTICAL STEPS FORWARD FOR AREI AND WORKING TOGETHER AS A REGION

How can the countries in the region enhance cooperation and joint efforts? What are priority tasks and recommendations?

5:00 PM - 5:30 PM
Closing session
# Annex 4

## AREI NORTH AFRICA REGIONAL CONSULTATION
Cairo 8-9 October 2018

## PARTICIPANTS

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Country</th>
<th>Organisation/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohamed</td>
<td>Osama</td>
<td>Egypt</td>
<td>Ministry of Electricity and Renewable Energy,</td>
</tr>
<tr>
<td>Rashid</td>
<td>Abdallah</td>
<td>Ethiopia</td>
<td>African Union Commission, Infrastructure and Energy Department</td>
</tr>
<tr>
<td>Hind</td>
<td>Abdaoui</td>
<td>Morocco</td>
<td>Ministry of Energy Mines and Sustainable Development, Service de l’Energie Hydroélectrique</td>
</tr>
<tr>
<td>Tamer</td>
<td>Abougharara</td>
<td>Egypt</td>
<td>Ministry of Environment</td>
</tr>
<tr>
<td>Wael</td>
<td>Aboulmagd</td>
<td>Egypt</td>
<td>Ministry of Foreign Affairs</td>
</tr>
<tr>
<td>Abir</td>
<td>Abuzeid</td>
<td>Egypt</td>
<td>Ministry of Environment/EEAA</td>
</tr>
<tr>
<td>Ahmed Atef</td>
<td>Afifi</td>
<td>Egypt</td>
<td>Sciosense Smart system development &amp; contacting</td>
</tr>
<tr>
<td>Lawrence</td>
<td>Agbemabiese</td>
<td>United States</td>
<td>AREI IDU</td>
</tr>
<tr>
<td>Moataz</td>
<td>Ahmed</td>
<td>Egypt</td>
<td>MOEE</td>
</tr>
<tr>
<td>Amel</td>
<td>Ayadi Ep Nejim</td>
<td>Tunisia</td>
<td>STEG, Direction des Etudes des energies renouvelebles et efficacité énergétique</td>
</tr>
<tr>
<td>Ahmed</td>
<td>Azzam</td>
<td>Egypt</td>
<td>Ministry of Electricity and Renewable Energy, African Affairs department</td>
</tr>
<tr>
<td>Samya</td>
<td>Ben Mlih</td>
<td>Morocco</td>
<td>MASEN</td>
</tr>
<tr>
<td>Tobias</td>
<td>Bishop-Niemz</td>
<td>Germany</td>
<td>Former head of energy, Council for Scientific and Industrial Research, South Africa (video presentation)</td>
</tr>
<tr>
<td>Samir</td>
<td>Chaouki</td>
<td>Morocco</td>
<td>Moroccan Agency for Energy Efficiency</td>
</tr>
<tr>
<td>Saber</td>
<td>El Hadary</td>
<td>Egypt</td>
<td>Ministry of Electricity and Renewable Energy, Energy Efficiency and Climate Change Department</td>
</tr>
<tr>
<td>Barakat</td>
<td>Faragalla</td>
<td>Egypt</td>
<td>Ministry of Electricity and Renewable Energy, Department of Africa’s Affairs and Nile Basin</td>
</tr>
<tr>
<td>Naglaa</td>
<td>Fikry Elk Sayed</td>
<td>Egypt</td>
<td>Egyptian Electricity Transmission Company</td>
</tr>
<tr>
<td>Niclas</td>
<td>Hällström</td>
<td>Sweden</td>
<td>AREI IDU</td>
</tr>
<tr>
<td>Reda</td>
<td>Hassanien</td>
<td>Egypt</td>
<td>Cairo University, Agricultural Engineering Department</td>
</tr>
<tr>
<td>Ehab</td>
<td>Kahil</td>
<td>Egypt</td>
<td>New and Renewable Energy Agency</td>
</tr>
<tr>
<td>Maged</td>
<td>Mahmoud</td>
<td>Egypt</td>
<td>Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)</td>
</tr>
<tr>
<td>M’Barka</td>
<td>Mahmoud</td>
<td>Mauritania</td>
<td></td>
</tr>
<tr>
<td>Vivek</td>
<td>Mittal</td>
<td>United Kingdom</td>
<td>AREI IDU</td>
</tr>
<tr>
<td>Ahmed</td>
<td>Mohina</td>
<td>Egypt</td>
<td>Ministry of Electricity and Renewable Energy, Research, Planning and Authorities’ Follow up</td>
</tr>
<tr>
<td>Bousseif</td>
<td>Moud</td>
<td>Mauritania</td>
<td></td>
</tr>
<tr>
<td>Baccari</td>
<td>Nafâa</td>
<td>Tunisia</td>
<td>ANME</td>
</tr>
<tr>
<td>Seyni</td>
<td>Nafo</td>
<td>Mali</td>
<td>AREI IDU</td>
</tr>
<tr>
<td>Mohamed</td>
<td>Nasr</td>
<td>Egypt</td>
<td>Ministry of Foreign Affairs</td>
</tr>
<tr>
<td>Safiatou</td>
<td>Nouhou</td>
<td>Niger</td>
<td>AREI IDU</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Organization</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Mohamed Omran</td>
<td></td>
<td>Ministry of Electricity and Renewable Energy, Research, Planning and Authorities' Follow-up</td>
<td></td>
</tr>
<tr>
<td>Ahmed Rabie Ginidi</td>
<td></td>
<td>Ministry of Electricity and Renewable Energy, Energy Efficiency and Climate Change Department</td>
<td></td>
</tr>
<tr>
<td>Eman Ibrahim Ramadan</td>
<td></td>
<td>New and Renewable Energy Agency</td>
<td></td>
</tr>
<tr>
<td>Hanae Rharntt</td>
<td></td>
<td>MASEN</td>
<td></td>
</tr>
<tr>
<td>Mohamed Said</td>
<td></td>
<td>Libyan Embassy in Ghana</td>
<td></td>
</tr>
<tr>
<td>Mohamed Samer</td>
<td></td>
<td>Cairo University, Faculty of Agriculture, Department of Agricultural Engineering</td>
<td></td>
</tr>
<tr>
<td>Hamid Sherwali</td>
<td></td>
<td>Libyan Authority of Renewable Energy</td>
<td></td>
</tr>
<tr>
<td>Akonbaker Shin</td>
<td></td>
<td>New and Renewable Energy Agency</td>
<td></td>
</tr>
<tr>
<td>Caroline Sipalla</td>
<td></td>
<td>AREI IDU</td>
<td></td>
</tr>
<tr>
<td>Sid Elemine Vatimetou</td>
<td></td>
<td>Ministry of Petroleum, Energy and Mines</td>
<td></td>
</tr>
<tr>
<td>Abdullatif Saleem Zgalei</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basheer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>