

Fourteenth session of the IRENA Assembly

Side Event

16 April 2024, 12:30 – 14:00 GST

St. Regis Hotel, Saadiyat Island, Abu Dhabi

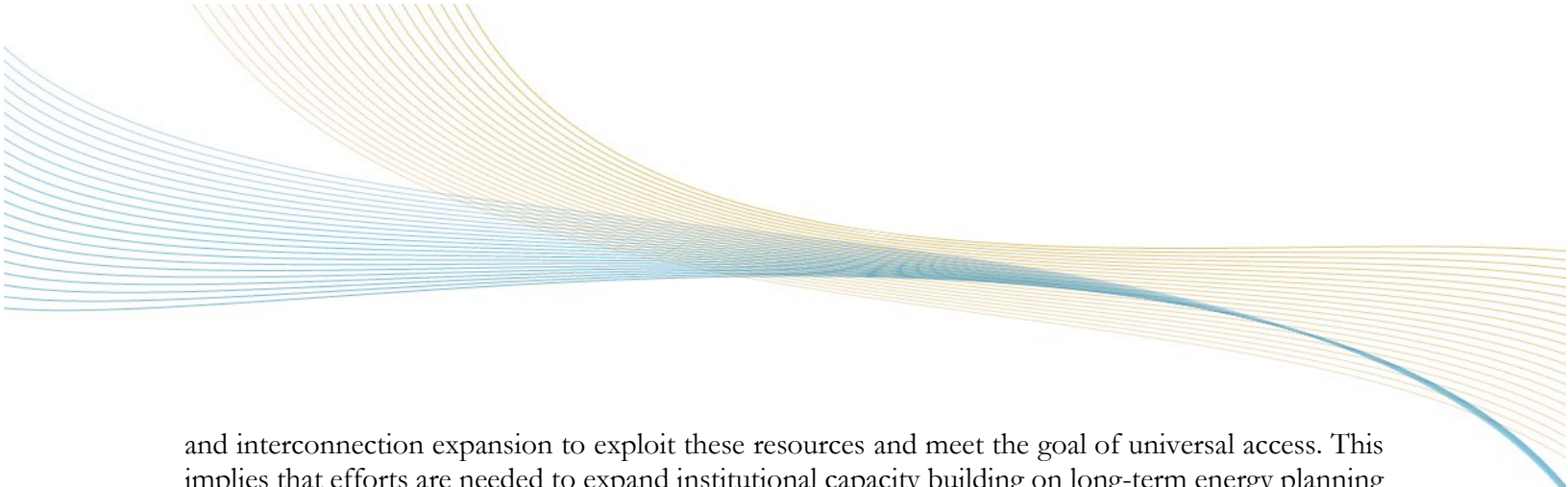
Integration of CMP as an enabler to support project preparation and mobilizing financing for renewable energy projects

Background

Africa faces substantial investment requirements in its power sector, encompassing generation, interconnections, transmission, distribution, mini-grids, and off-grid access. Diverse factors drive these needs across various regions of the continent, with the primary catalyst being the substantial growth in electricity demand. Despite implementing efficiency measures, African economies anticipate nearly doubling their energy demand by 2040 due to population growth and improving living standards. Consequently, the imperative to formulate forward-thinking, cost-effective, and environmentally friendly expansion plans for energy systems ranks high on the national agendas of most countries in the region.

Against this backdrop, IRENA joined forces with the African Union Development Agency, AUDA-NEPAD, with the aim to strengthen institutional energy planning capacity within the scope of the Continental Power Systems Masterplan (CMP) initiative, using the long-term energy planning model SPLAT-CMP built from IRENA's SPLAT models of 48 African countries (all continental Africa). The CMP aims to establish a long-term continent-wide planning process for power generation and transmission and serves as a blueprint for the African Single Electricity Market (AfSEM). The involvement of all African power pools has been stressed to align energy planning processes and maintain the project's pan-African spirit. The CMP is being developed in multiple phases - Phase I developed the CMP baseline study, while Phase II developed a CMP Platform to host a common information system and the modelling tools. These phases were concluded in September 2023 and endorsed by Heads of States of the African Union in February 2024. Phase III seeks to build on the progress to date and ensure continuity towards the implementation of CMP recommendations.

Phase II findings from the CMP scenarios (regional and continental) show country wise renewable prospects to 2040 for the four African power pools and North Africa. In the main scenarios, capacity is projected to rise from about 270 GW to an ambitious upper range of 1,200 GW, signalling the transformative need to quadruple investment in power generation if the continent is to meet its goal of universal access to electricity and sustainable development. Indicative estimates show that Africa will require between 1.27-1.29 trillion USD (2019 base) worth of investments needed in generation



and interconnection expansion to exploit these resources and meet the goal of universal access. This implies that efforts are needed to expand institutional capacity building on long-term energy planning using the CMP tools and methodologies to level of power pools, RECs and member states. Efforts will also be required to create a pipeline of bankable power generation and transmission priority projects by providing technical assistance, procurement support, and investment facilitation to projects.

To support such efforts, CMP Phase-III will be implemented for the period from 2024 to 2029, commencing in June. This phase contains two pillars;

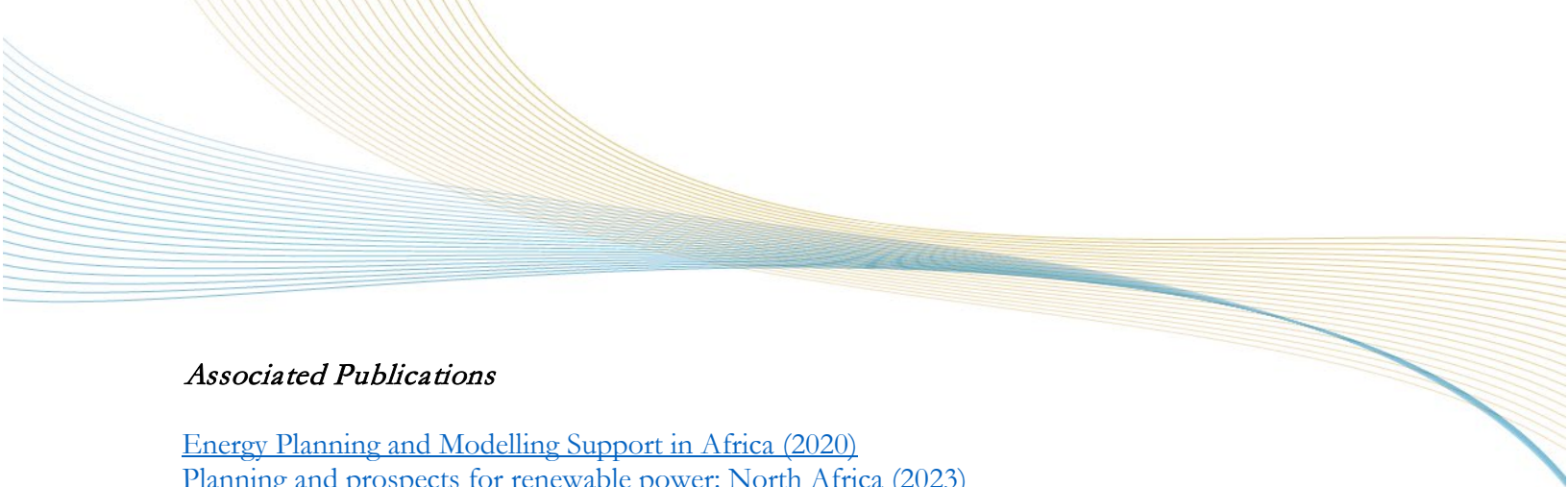
1. Pillar I: Long-term electricity planning and capacity building and;
2. Pillar II: Preparation and implementation of CMP Projects.

The work in this phase is dedicated to support AUDA-NEPAD, experts from the five power pools as well as experts from AUC to further enhance the coordination of power sector planning and the governance processes around it at national, regional, and continental levels. Country-owned planning processes can constitute the building blocks to accelerate and scale up investment in new and renewable power generation, renewable energy integration and transmission infrastructure across the continent.

Objectives

The event will showcase the high-level outcomes of the CMP effort and invite country decision makers, key African institutions, and major international partners to take stock of this important progress for the region. This side event aims to achieve the following objectives:

- Highlight the importance of institutional capacity building programs as a key instrument to spark country- and regionally owned planning processes using the CMP achievements.
- Advocate for alignment and benchmarking of national tools with the CMP, to have comparable aspirations on energy transition, and to showcase CMP key results and its role in supporting political decision making for energy transition.
- Engage Members to collectively address challenges related to attracting finance for renewable energy projects, advocating for supportive financial mechanisms, creating investment-friendly policies, and encouraging cooperation with financial institutions for implementation of CMP renewable energy priorities from 2021 to 2030.



Associated Publications

[Energy Planning and Modelling Support in Africa \(2020\)](#)

[Planning and prospects for renewable power: North Africa \(2023\)](#)

[Planning and prospects for renewable power: Eastern and Southern Africa \(2021\)](#)

[The renewable energy transition in Africa \(2020\)](#)

[Planning and prospects for renewable power: West Africa \(2018\)](#)

[Planning and prospects for renewable energy: Africa Power Sector Synthesis report \(2015\)](#)

For more information please contact:

Asami Miketa, Head, Energy Transition Planning and Power Sector Transformation, IITC
(amiketa@irena.org)

Nolwazi Khumalo, Programme Officer, Energy Planning Support and Capacity Building, IITC
(nkhumalo@irena.org)