



Improving Resource Assessment Practice in North Africa: A Solution to Streamline Early Stage Solar and Wind Market Planning

December 13, 2021

Background

IRENA, with the Arab Regional Center for Renewable Energy and Energy Efficiency (RCREEE) and other key Arab regional partners, engaged in the design and development of the Pan-Arab Clean Energy Initiative (PACE). PACE is one of the initiatives included in the **Roadmap of Actions for the implementation of the Pan-Arab Sustainable Energy Strategy 2014-2030**, <https://irena.org/mena/Pan-Arab-Clean-Energy-Initiative>, that aims to integrate a greater share of renewable energy into power systems in the region.

In the implementation of the PACE initiative, an extensive consultative process was undertaken, following which, several limitations preventing the deployment of large-scale for solar and wind projects in the region were highlighted. These included the lack of detailed resource assessments and countries' limited resources to utilise up-to-date information to properly plan for their national RE market development.

As a solution, IRENA proposes to provide preliminary support by using its zoning analysis service. The service which leverages on a multi-criteria decision-making methodology to aggregate and cluster the best areas suitable for utility scale solar PV and wind power development. These areas are assessed by combining renewable resource (solar or wind) data with technical (electrical grid network, slope), and socio-environmental (protected areas, land features and population growth) information, using a weighted linear combination approach.

The results disclose country specific theoretical installable capacities for solar and wind generating plants and reveal the most promising zones for potential investment in “site specific” resource assessments and measurement campaigns.

With these encouraging results, IRENA intends to develop a solid informational base that facilitates countries' project planning activities from initial stages to operational levels.

As such, IRENA's project: **Improving Resource Assessment Practice in the Arab Region: A Solution to Streamline Early Stage Solar and Wind Market Planning** features two phases:

- Zoning assessment reports for all Arab countries that leverages on datasets and methods, sourced and developed through the Global Atlas programme.
- Technical workshops on the fundamentals of identifying suitable areas for utility-scale renewable energy project planning.

This event serves to deliver the second phase of this project by focusing on the technical aspects of the zoning assessment methodology and results. It will also provide an avenue for countries to share their experiences with RE project planning offering opportunities for interactive discussions.



Agenda

Time - GST	Session title and content
11:00 – 11:30	Opening remarks and welcome <ul style="list-style-type: none">• Gurbuz Gonul, Director, Country Engagement and Partnerships (CEP)• Rabia Ferroukhi, Director, Knowledge, Policy and Finance Centre (KPFC)• Ms. Jamila Matar, Head of Energy Department, LAS General Secretariat, Energy Department• Dr. Maged Mahmoud, Acting Executive Director, Regional Center for Renewable Energy and Energy Efficiency (RCREEE)
11:30 – 11:45	IRENA's resource assessment overview: Imen Gherboudj, Programme Officer, Resource assessment, KPFC <ul style="list-style-type: none">• Support tools and services• Q&A session
11:45 – 15:00	RE Resource Assessment for project planning Imen Gherboudj, Programme Officer, Resource assessment, KPFC; Mohammed Nababa, Associate Programme Officer, KPFC <ol style="list-style-type: none">A. Basics of resource assessmentB. Renewable and ancillary datasets – sources and trade-offsC. Zoning analysisD. Spatial analysis for project planningE. Calculation of generation profiles resultsF. Q&A session
15:00 – 16:00	Break
16:00 – 16:30	<ol style="list-style-type: none">A. Results of zoningB. Q&A session
16:30 – 17:00	Moderated country experiences sharing in spatial planning
17:00 – 17:15	Closing remarks: Binu Parthan, Head of Regions