

Concept Note

Expert Workshop on “Solar Pumping: An Emerging Market and a Major Driver for Sustainable Energy and Jobs”

Date: 23 May 2017

Venue: InterContinental Semiramis Hotel Cairo

Background

Energy security presents a major challenge for many Arab countries and is considered an indispensable requirement for inclusive, equitable, and sustainable term development. This includes the first and foremost reliable and affordable access to modern energy services for the largest possible number of citizens, the lack of which can have – and in fact has had – profound negative impacts on the living conditions and working conditions of the latter.

The introduction of solar pumping currently represents one of the fastest growing markets for sustainable energy technologies in the entire Arab region. The reasons for this dynamic are manifold and vary from country to the other. The main ones are: rapidly growing prices for fossil pumping installations due to the rapid and often radical phase-out of power and diesel subsidies for farmers and agro-industrialists across the region; growing supply bottlenecks in many countries for diesel and power for on-grid pumps (plus other agricultural facilities); the extension of farming and hence irrigation into remote regions unconnected to the grid; and last but not least the quickly dropping costs as well as the improving technical performances of the solar pumping technologies themselves. The latter therefore offer viable, cost-attractive and easy-to-implement solutions not only for the equipment of new irrigation facilities, but also for the replacement of existing fossil ones. They also protect from the risks of supply crunches and price hikes, which undermine the competitiveness of important parts of the agricultural sector and thereby threaten the future of a major pillar of Arab economies, and one of the main job providers in the region.

However, they also involve several major challenges:

- as operational costs of solar pumps are considerably lower, caution needs to be made that they do not lead to an over-utilization / overexploitation of scarce water resources and especially groundwater;
- as the installations are often far away from the main urban hubs and industrial centers, it is imperative to ensure the availability of qualified workforce, competent installers, and high-quality post-sales maintenance services for their crucial role in the local value chain;
- as local banks are still not familiar with these technologies, and as many users, and in particular the large majority of small farmers do not have the necessary collateral, the creation of the necessary technical standards and risk mitigation mechanisms becomes paramount;

Finally, there is the need to address and overcome a general socio-cultural gap in this particular field, as many involved stakeholders (customers, investors, installers, banks,

trainers etc.) do not speak the ‘same language’ – and this refers not only to the language they are used to use (Arabic, French, English...), but also relates to their habitus and the way they express themselves. Communication is therefore key: making people aware of opportunities (and challenges), convincing them to invest, empowering them to formulate their wishes and needs, enabling them to deliver quality.

The promotion of solar pumping in the Arab region has therefore moved at the forefront of the cooperation between the GIZ Project RE-ACTIVATE (Promoting employment through renewable energy and energy efficiency in the Middle East and North Africa) and the Regional Center for Renewable Energy and Energy Efficiency (RCREEE).

To this effect, both are proposing to hold an expert workshop on 23rd May back-to-back with and as a follow-up to their Regional Conference on Distributed Generation in the Arab World on 22nd May, in order to continue and deepen the exchange and discussion of the previous day, but with a specific focus on solar pumping this time. In this sense, both events can be seen as a package, in the same way as they can be seen as two stand-alone events.

Objectives

- Introduce the main currently available solar pumping technologies, highlight present and likely future trends from a technology and financial perspective.
- Showcase how they have (or may) contribute to energy security and socio-economic development of user groups and host countries
- Explore international and regional benchmarks and good practices in this field
- Highlight key emerging markets for solar pumping solutions in the Arab region, with the focus on Egypt through introducing the RCREEE/RE-ACTIVATE draft study “Market Assessment of Solar Pumping in Egypt”
- Collect feedback and insights to assess the potential impact on local value and jobs, identify real needs for capacity building, highlight potential gaps in the regulatory framework as well as regarding access to financing, and address goal conflicts with regard to other sector approaches, e.g. with regard to water.

Target Audience

The workshop is mainly directed at decision and policy makers, public and private sector representatives (including banks), experts and researchers, representatives from regional and international institutions, as well as media and civil society organizations.

Expected Outcomes

- Participants are aware of the main technological solutions in the solar pumping field
- Participants understand the main benefits - including in socio-economic terms – as well as the main tradeoffs and challenges of solar pumping
- Participants know concrete success factors and lessons learnt in this field.
- Participants know interlocutors and cooperation partners in this field.

AGENDA

Time	Item	Speaker
09:00 - 09:30	Registration	
09:30- 10:00	Opening speeches by: Dr. Steffen Erdle; GIZ, RE-ACTIVATE Dr. Ahmed Badr; RCREEE Eng. Jamila Matar; LAS Dr. Abou Bakr Abd Elhamid; NREA	
10 :00-11 :00	Solar pumping, introduction to the technology and practical considerations for its deployment	Eng. Ossama Mokhtar; Solar pumping expert
11:00 - 11:30	Coffee Break	
11:30 - 13:00	What impacts for local value and jobs through solar pumping? How to use them, how to boost them?	Moderator: Dr. Steffen Erdle; GIZ
	A tentative assessment of the Egyptian solar pumping market	Inass Abou-Khodier, RCREEE
	Job Creation potential in Morocco/Tunisia and training programs	Dieter Uh; Energy expert
	Training demands for workforce development: Insights from the field	Eng. Wael Madkour; IAREEE (International Academy for Renewable Energy and Energy Efficiency)
	Insights from national farmers	Mohamed Farag; EFU (Egyptian Farmer's Union)
	=> Short input presentations (max. 10 minutes each) followed by Q&A and panel discussion and recommendations (with focus of market development challenges, capacity building and socio-economic aspects along the value chain)	
13:00 – 14:00	Lunch Break	

Time	Item	Speaker
14:00 - 15:30	Financing schemes and support tools for solar pumping: Good (and not so good) practices, and what can be learned from them	Moderator: Ali Ben Abdallah, GIZ
	Morocco: New financial and technical standards and guidelines for solar pumping and highlights on the current challenges in Egypt	José Luis Bobes; EBRD, EgyptGEFF (Egypt Green Energy Fund)
	Experiences from Egypt: perspectives of the public stakeholders	Dr. Moustafa Abu Zeid, MoWRI (Ministry of Water Resources and Irrigation) Dr. Atter Hannoura, ECDC (Egyptian Countryside Development Company)
	Experiences from Lebanon: the role of an integrated approach through national RE action plans and financial mechanisms.	Dr. Sorina Mortada; LCEC (the Lebanese Center for Energy Conservation)
	Experiences from Jordan: Water-Energy-Food NEXUS challenges, setting priorities and implementation support	Eng. Diana Athamneh; JREEFF (Jordanian Renewable Energy and Energy Efficiency Fund)
	=> Short input presentations (max. 10 minutes each) followed by Q&A and panel discussion	
15:30 – 16:30	Open discussion on ways forward to upscale solar pumping markets in Egypt and the Arab region as a driver for local value and job creation Wrap up & closing: How best to use solar pumping	Moderator: Dr. Maged Mahmoud, RCREEE

P.S: The working language is **English** and simultaneous translation into Arabic will be offered upon request.