



European Investment Bank (EIB)

Luxembourg, 20 December 2019

## Environmental and Social Completion Sheet (ESCS)

### Overview

Project Name:	<i>OUARZAZATE II (PARABOLIC)</i>
Project Number:	<i>2013-0342</i>
Country:	<i>Morocco</i>
Project Description:	<i>Construction and operation of a 200 MW CSP<sup>1</sup> Parabolic trough plant under the second phase of the Ouarzazate solar power complex.</i>

### Summary of Environmental and Social Assessment at Completion

#### **EIB notes the following key Environmental and Social outcomes at Project Completion.**

After receiving the relevant information after project completion, at the end of the first operational year, it can be concluded that no significant environmental and social issues were noted.

An ESIA was produced by the Special Purpose Vehicle (ACWA Power Ouarzazate) in 2014 and an environmental licence was granted by the competent authorities in May 2015. The project was implemented in line with the technical description.

The environmental impacts that materialised during operation were in line with those identified at appraisal, and included the rejection of dirty cleaning water in unauthorised areas, accidental spills from pump antifreeze liquid and hazardous waste mismanagement. All of them were treated accordingly and no residual contamination occurred. On the basis of the results of audits led by external auditors and the classification of their impacts, the severity of these events is considered minor.

During the construction period, up to 10 external environmental and social audits have been successfully performed for OUARZAZATE II (NOOR II) project.

These audits highlighted a few non-conformities, which were solved immediately. However, the Bank believes that the management system put in place might not be sufficient for a project of this magnitude.

As highlighted at appraisal, water consumption is one of the critical environmental impacts, especially in an arid area as the present one, where industrial water uses can compete – and displace – with other uses, such as human consumption and agriculture. In this regard, the plant uses air-cooled condensers, which greatly reduce the water consumption during operation at the expense of slightly lower efficiency. During the first operational year, such consumption was in line with the contractual requirements, an annual average consumption of 0.54 m<sup>3</sup>/MWh, favourably compared with ~ 3.75 m<sup>3</sup>/MWh for a standard plant without such a system.

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<sup>1</sup> Concentrated Solar Power



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During the monitoring mission in March 2019, EIB requested up-to-date statistics on the level of filling of the associated water reservoir, requiring the promoter to regularly monitor this aspect and inform EIB of any complaints received related to the water availability. The statistics presented as of May 2019 confirm that the current filling level of the Al Mansour Eddahbi dam is 214.9 Mm<sup>3</sup>, which corresponds to a filling rate of 48.3% and the situation was not considered as critical by MASEN.

On the other hand, according to the electricity offtake contract (Power Purchase Agreement), diesel consumption of the auxiliary fuel system, which has a direct impact on the carbon footprint of the plant, is limited to a maximum of 12.9 GWht/year (56 GWh at appraisal). Since the beginning of operations, the diesel consumption of the plant was below the contractual threshold: 7.9 GWht in 2018 and 4.1 GWht during the first semester of 2019.

The Environmental and Social Management Plan (ESMP) resulting from the EIA Report also identified a risk for bird safety and the need for a Bird Monitoring Plan. The Plan has been prepared and reviewed by the auditors during the first operational audit and has been found satisfactory. Also, an identification of species has been carried out by a specialist to help define the species that are most likely to be onsite. At the PCR date, no records of bird mortality have been reported and the Bank will monitor this aspect in the next reporting periods.

### **Social Impacts**

As far as social impacts are concerned, the project overall enjoyed the support of the local communities. Complaints are registered and classified as internal (wages, insurance, payment default, etc.) and external (civil society, nearby communities, etc.) complaints.

All the complaints are recorded in a specific register and treated by the promoter as required by the complaints mechanism set up for the whole Ouarzazate complex. No major problems or critical issues were detected so far.

In addition, the Bank has received a complaint registered as SG/E/2017/17 for the Centrale solaire de Ouarzazate (2010-0242), although it covers the whole complex. The complaint was related to the eligibilities for the training programme organised by the EPC contractor, and more generally to the lack of jobs for the inhabitants of nearby communities. It was solved satisfactorily, as the reason for the scarcity of new posts was the end of the construction period.

During the construction of the NOOR Ouarzazate complex, a comprehensive social development plan for local people was implemented. This plan covers three main components:

- A social development plan. It was established by the promoter using the proceeds obtained from the land acquisition. The local population proposed potential projects to be financed by these funds. These include irrigation facilities, drinking water supply, socio-cultural projects, farmland protection, road projects, health and education infrastructure projects. Representing a total of 27 Mdh – or EUR 2.5m –, 82% of the projects in this department have been completed or are under construction (as of the end of 2018) and the promoter is actively working towards the implementation of the full programme.



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- The promoter's (Moroccan Agency for Sustainable Energy - MASEN) voluntary social actions (~ 75 million Mdh, or EUR 6.7m) implemented in the framework of its local development strategy, covering a wider scope and geographical area. They aim to improve the quality of life of site-based areas, which are often out of the way, to maximise local employability and to carry out ad hoc support operations in areas well identified with regard to the specificities of the region. MASEN also developed its Corporate Social Responsibility (CSR) Plan.
- The social development plan implemented by Acwa Power Ouarzazate (APO) from 2013 to 2018 as part of its Corporate Social Responsibility activities and covering almost all major sectors (agriculture, education, SMEs, health, etc.).

Various presentations on MASEN and APO's Corporate Social Responsibility projects were made during the monitoring missions and local projects were visited. The Bank recommended (i) the necessity to increase the share of MASEN's CSR plan dedicated to education (ii) the importance of promoting energy efficiency and renewable energy measures to address energy poverty (precariousness) of households vulnerable to the rise in energy prices.

**Summary opinion of Environmental and Social aspects at completion:**

The EIB is of the opinion, based on reports received from the promoter, that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.

The promoter shall commit to apply the Bank's recommendations with regard to the ongoing actions, as exposed in the sections above.