June 10, 2014

Approval by mail: Morocco: Noor II & III Concentrated Solar Power (CSP) Project CTF (AfDB and IBRD)

Dear Patricia,

Thank you for the opportunity to review and comment on the project entitled, *Morocco: Noor II & III Concentrated Solar Power (CSP) Project,* submitted by the Government of Morocco, the African Development Bank (AfDB) and the International Bank for Reconstruction and Development (IBRD). Overall, we are very pleased to review this proposal with strong environmental benefits, including: significant GHG emission reductions from fossil fuel displacement, and significant (and likely unique) global demonstrative effect as the project will enable "conventional" (parabolic trough) and "next generation" (tower) CSP technologies to operate side-by-side thus providing real-time comparisons of costs/ benefits. We also recognize the important initiatives undertaken by the Government of Morocco, in particular by establishing admirable renewable energy targets, launching a national solar plan, and closing all domestic coal mines.

We have several comments for the MDBs on the environmental aspects of the project, including

1. Policy Pricing Framework. Global experience suggest that feed-in-tarrifs (FIT) provide the necessary financial policy environment for renewables, particularly solar, to flourish. The Noor proposal will use a FIT payment system, which is entirely positive. The other side of the equation, however, is putting a price on carbon to account for externalities and thus make fossil fuels less attractive i.e. FIT to make renewables attractive, carbon pricing (carbon taxes and/ or cap and trade, with appropriately designed compensation measures for the poor) to make status quo fossil fuels less attractive. On the latter, Morocco appears to be doing the opposite - it is currently subsidizing fossil fuels. We note that there is a complementary Technical Assistance component to the investment package; it *could be beneficial to explore if such TA could include a policy dialogue component on complementary (to FIT) carbon pricing mechanisms, worldwide experiences etc.*

2. Overall Policy Environment. Morocco's overall policy environment towards solar is highly positive, which bodes well for the country's commitment to ensure Noor's success, and future replication.

3. Cost/ C ton reductions. The cost/ ton carbon avoided for the Noor project is high (as a comparison, carbon pricing often has/ imputes a cost of $40-$60/ ton, whereas Noor overall has a $155/ ton avoidance cost). However, the demonstrative effect of Noor needs to be considered, as well as the fact that solar costs have declined 70-80% in recent years i.e. costs will undoubtedly further decrease, and a successful demonstration is likely to lead to more carbon avoidance cost-effective replication elsewhere in Morocco and globally.

4. Storage. We are pleased to note that the design specifications for storage will help reduce the problem of "no sun, no power" and provide capacity when it is most needed.

In addition to the above, we have the following questions on the indicative financing plan:

- The proposed public-private partnership will create limited recourse SPVs between MASEN and private sponsors. In this light, it is not clear to us whether CTF public sector loans terms are applicable, particularly in the absence of a sovereign guarantee. We request a justification for the use of public sector loan terms. In addition, in the event that the public sector terms are consistent with CTF financing guidelines, we would require further justification for the use of soft loan terms, as well as the proposed tenor indicated on page 21 (e.g. 40-50 years).
- The economic and financial analysis on page 18 indicates a negative "opportunity cost" of -$517M to the Government of Morocco. We request a sensitivity analysis comparing the economic and financial rates of return for this project with and without CTF financing, reflecting the appropriate, concessional discount rate (i.e., cost of funding, not average cost of debt) and tenor.
- The project document indicates that MASEN will be charging a fixed interest rate in its loan agreement(s) with the special purpose vehicles (SPVs) that includes a margin to cover MASEN's exposure to fluctuations in variable interest rate loans provided by other donors. We request further details from the MDBs regarding the steps they will take to ensure that MASEN will pass on the concessional financing directly to the SPVs, and to inform of us any fees that MASEN would charge for doing so.
- CTF concessional financing is expected to amount to around 10-15% of the total concessional debt for this project. We request further information on the balance of the concessional debt and the terms on which it is being provided.
- We would appreciate if the MDBs could clarify the leverage ratios for this project, as the ratios displayed in Annex 1 are different from those listed on page 40.
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We look forward to receiving a response from the MDBs on these questions, and would request an extension to the project approval deadline by two business days, upon receipt of this response.

Best regards,
Jennifer

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