



SCALING-UP RENEWABLE ENERGY PROGRAM IN ETHIOPIA

JOINT MISSION

Aide-mémoire

Addendum – Information Note

December 2011



Structuring of the SREP Investments

24. The Table below sets out a preliminary financing plan for the projects embedded in the IP. The total cost is currently estimated at USD 512.2 million, of which SREP is expected to finance up to USD 50 million. These funds will leverage additional financing from the MDBs and other development partners approximately in a 1/10 ratio.

Table: Indicative Sources of Finance

#	Project	Total Cost	GoE [^]	SREP	MDBs	GEF	Others
1	Geothermal Development Project						
1.1	- Component I: Aluto Langano Geothermal Power Generation Project						
1.1.1	Phase I: Appraisal and Production Drilling	93.0	42.0	24.5	10.0**	-	16.5*
1.1.2	Phase II: Power Plant and Transmission Line Construction	136.2	36.2	-	50.0+	-	50.0***
1.2	- Component II: Design of a Long-Term Strategy for the Geothermal Sector	2.0	0.5	1.5	-	-	-
2	Assela Wind Farm Project	250.0	40.0	20.0	140.0	-	50.0++
3	Off-Grid Energy Access Project+++	31.0	8.0	4.0		5.0	14.0
	TOTAL	512.2	126.7	50	200	5.0	130.5

* It includes a USD 10 million from GoJ. The USD 6.5 million gap is expected to be closed by other donors. In case this amount is not secured, the GoE will come up with the amount.

** It includes USD 10 million co-financing from the WB.

*** Following preliminary discussions between the GoE and the GoJ, the gap is expected to be closed by the GoJ (USD 50 million)

+ USD 50 million will be used to finance the construction of the Power Plant and is pending country's allocation under the next cycle of ADF and/or IDA. If the GoE chooses to increase its ADF and/or IDA allocation to the Project, the sources of financing can change in the future.

++ The USD 50 million gap is expected to be closed by other donors. In case this amount is not secured, MDBs in conjunction with the GoE will hold donor meetings to bring in other co-financiers. In case this proves to be unfeasible, the GoE will prioritize further ADF and/or IDA allocations to this project.

+++ Even though during the Joint Mission it had been agreed to include an ongoing WB project to support Solar Home System Installations of USD20 million, after further analysis and internal consultations at the WB it was decided that it was not appropriate to include that as a co-financing component of the project being proposed under the SREP IP, as implementation timeline will differ significantly between these two projects. The GoE may consider other alternatives to the use of USD 4 million SREP allocation.

[^] The GoE is willing to act as a financier of last resort in the case an unexpected financing gap arises.

25. **Geothermal Development Project.** The Joint Mission agreed that under this project, SREP will support two components: (i) the Aluto Langano Geothermal Generation Project; and (ii) Design of a Long-Term Strategy for the Geothermal Sector.

26. At Aluto Langano, a pilot plant of 7.3 MW was installed in late 1990's using some of the productive exploration wells drilled in 1980's. A feasibility study to expand the field to 75MW by drilling of appraisal and production wells was conducted in 2010 with the assistance of the GoJ. The study indicated the expansion plan is feasible. Accordingly, preparations to drill four appraisal wells are on progress with the assistance of Japan, soft loan from the World Bank and the Ethiopian Government contribution to the financing of the continuous development of the Aluto Langano Geothermal Site. The project is owned by EEPCo and the field is currently operating as a pilot project at 5MW capacity. Following the SREP investment, the installed capacity is expected to be expanded to 75MW.

27. The total cost of Component I is estimated at USD 229.2 million, of which: i) USD 93 million for Phase A - Resource Development (drilling of 3 appraisal and 1 reinjection well, plus feasibility studies and, at the production stage, 10 production wells and 3 reinjection wells); and ii) USD 136.2 million for Phase B - Power Plant and Transmission Line Construction.

28. SREP funds of USD 26 million will be used to support the drilling of production wells (USD 24.5 million) and to design a Long-Term Strategy for the Geothermal Sector in Ethiopia (USD 1.5 million with a contribution in-kind of USD 500,000 by the GoE). The strategy shall include defining options for how geothermal assets can be developed in Ethiopia, including leveraging the private sector and ensuring that future projects are bankable and building business skills.

29. **Assela Wind Farm Project.** It has been agreed that SREP would support the financing of the Wind Farm Project in the Assela region. The project will be executed by EEPCo and will include a Project Preparation Grant to finance upfront (i) detailed feasibility study including installations of wind masts; and (ii) a full ESIA and RAP. The Project has a total estimated cost of USD 250 million.

30. SREP funds will be used to finance the activities under the PPG (USD 1.7 million) and as a capital buy-down to put less stress on EEPCo's financials and ultimately lead to affordable supply of electricity to end users. Even though EEPCo will be the owner of the Project and the GoE intention is to stimulate the local wind industry, an international competitive bidding process for the procurement of an EPC contract will be launched. The execution of the activities under the PPG is expected to start at the end of 2012, when the procurement plan is fully implemented. The MDB in charge will seek for board approval during the year of 2014. In due time, the GoE in conjunction with the MDBs and its development partners will hold discussions to close the current USD 50 million financing gap.

31. **Off-Grid Energy Access Program.** The Joint Mission agreed to include in the IP the Off-Grid Energy Access Program in Ethiopia. The objective of this program is to establish a sustainable approach to expanding the population's access to renewable energy technologies, electricity, and improving the quality and adequacy of electricity and clean stoves, thus supporting broad-based economic development. The program will comprise two components: (i) supporting a market-based approach to cook stoves dissemination, namely covering needs assessments, testing and development of stoves, training of entrepreneurs, capacity building of the Ministry, and regional energy bureaus, market trials and awareness raising; and (ii) financing a portion of GoE's PV energy projects. SREP will contribute a total of USD 4 million to the Off-Grid Energy Access Program, USD 2 million each for the cook stoves and PV components.