Renewable Energy for Electrification in North and Center Liberia Project-Mini Grids

Country / Region: **Liberia** | Project Id: **XSRELR031A** | Fund Name: **SREP** |

Comment Type	Commenter Name	Commenter Profile	Comment	Date
Comment 1	Daniel Menebhi	Switzerland	Swiss position With reference to: The SREP Investment Plan for Liberia endorsed by the SREP Subcommittee on 13th October 2013, Switzerland draws the following conclusions: The project is needed by Liberia to jump-start the implementation of its renewable energy strategy and to provide vital electricity access to Lofa county, where no such grid-based access would otherwise materialize within a very long time; Liberia's economy and finances are weakened by the Ebola crisis which justifies a case of exception regarding the attribution of a 100% SREP grant; The project is basically sound, in line with SREP investment criteria and provides acceptable expected results; however, it could benefit from substantial improvement; The project is not entirely aligned with the endorsed SREP Investment Plan as it fails to consider diesel generation as the last resort and also because the World Bank fails to provide the full USD 8.5 million co-financing committed in the IP; The project is not responsive to Switzerland's recommendation to the SREP Investment Plan regarding the maximizing of renewable energy output in hybrid mini-grids (or minimizing of diesel generated output) nor regarding a more ambitious cofinancing by the multilateral development banks; As demonstrated in the economic analyses provided in the project proposal (table 1 p.27 and p.72), the expected results could be significantly improved by the introduction of solar PV generation into the mini-grid, notably with regards to the operating expenses where the levelized operating cost of electricity could be cut in half (from USD 0.237 IkWh to USD 0.125 IkWh); The operating costs are highly relevant in the context of a fragile low income country in Africa such as Liberia and, in our eyes, given the availability of a grant to cover capital expenditure, they are more relevant than the total costs. As per the economic model used by the World Bank, there are USD 2.3 million un-used funds in the proposed base solution (hydro + diesel only) in addition to 30% contingencies in the USD 18.4 million CAPEX budget. The WB contends that these unused funds are needed as additional contingencies to cover the risk on project costs related to the post-Ebola situation. The overall contingencies in the project are thus USD 7 8 million (i.e. 42% of CAPEX). Given that high amount of contingencies and in light of expected state-of-the-art procurement procedures, significant project savings may be expected. According to the WB PAD, the proposed 2 MW generating capacity of small hydro-power is significantly higher than the expected demand at the start, making the additional availability of solar power useless in the wet season. For that reason, the WB and Liberia consider the addition of connections a priority over a cheaper energy mix. It must be noted that.the costs for connecting the targeted 50'000 people (11 '520 connections) and 480 businesses was estimated at USD 3.6 million in the project. The unit connection cost budgeted is thus 300 USD. In a dynamic, more long term oriented view, additional demand through increased use and additional connections could rapidly bring the system to the limits of its gen-erating capacity and, as indicated in the economic analysis (table 2 p. 54), it will lead to a surge of (diesel) fuel costs, along with needed capital expenditures for diesel generator sets (in years 7, 12 and 17). There is a substantial risk that these costs cannot be recovered from tariff income. This risk is further increased by the likelihood of higher diesel fuel costs in the future. The availability of a sizeable grant for investments in renewable energy through the SREP must be considered as a unique opportunity and there is no guarantee that such funding will be available in the future, i.e. at the time when the introduction of an alternative renewable energy source will be absolutely necessary.	Nov 19, 2015

Conclusion

Under consideration of the above, Switzerland supports the approval of the project under the following provisions:
The feasibility studies shall address the possibility to blend-in Solar PV generated electricity with or without battery storage to the extent possible under the financial plan provided in the SREP Investment Plan. The World Bank commits to provide and the Government of Liberia commits to accept additional co-financing from WB sources to the extent of the initial commitment in the IP (i.e. an additional USD 6.5 million) as soon as such financing (e.g. IDA) becomes available. As far as possible, this additional co-financing shall be blended with whatever funds will be remaining after the foreseen capital investment related to the base case (hydro and diesel only) described in the PAD is contracted and implemented, i.e. when contingencies and unused funds can be released. At the occasion of a mid-term review, the best use of these released funds shall be determined with alternatives being: Extension of the grid and further connections Introduction of a complementary source of renewable energy (solar PV or whatever is most appropriate) A combination of both. The decision to use any portion of SREP grant from these released funds shall be in the authority of the SREP Subcommittee