ASSESSMENT OF ECONOMIC VIABILITY OF FEED-IN TARIFF WITH SUPPORT OF GET FIT PREMIUM PAYMENT A case of a 10MW grid connected solar PV system in Uganda

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STUDY MOTIVATION

Uganda introduced a FiT for utility scale solar with The project is not viable with the proposed FiT of support from Global Energy Transfer FiT premium payment in April 2014.

The research study assesses the economic viability of a 10MW solar PV system. The government would like to diversify the electricity portfolio and increase electricity supply.

METHODOLOGY 2.

study employs the discounted cash flow The technique and Monte Carlo simulation to evaluate the economic viability of the FiT by:

Using estimate data on solar panels and investment costs and operating and maintenance expenditures; results including Net Present Value and profitability index are generated and reviewed for FiT case without and with GET FiT support.



RESULTS 3.

The project is not feasible if the contract period is reduced below 20 years. \$0.11, however with the support \$0.015 from GET FiT,

Economic analysis summary results

Net Present Value (\$)

Internal Rate of Return

NPV Capex Ratio

The GET FiT liability decreases with an increase in the government set FiT.



Plant size of 20MW, 10MW and 5MW require \$0.007, \$0.015 and \$0.027 of GET FiT support respectively for profitability.



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Larger scale investors require a lower electricity price for profitability.



CONCLUSION

•The results inform that the project is not viable under FiT of \$0.11.

 The project is only viable with GET FiT premium payment support.

•The minimum feed-in tariff required for project viability varies for different plant sizes.