

NS-121 - Development of a feed-in tariff NAMA for renewable energy

Sudan

NAMA Seeking Support for Implementation

A Overview

A.1 Party	Sudan														
A.2 Title of Mitigation Action	Development of a feed-in tariff NAMA for renewable energy														
A.3 Description of mitigation action	<p>Development of a feed-in tariff policy NAMA for renewable energy in Sudan, including:</p> <ul style="list-style-type: none"> - Development of a set of guidelines to establish national NAMA eligibility and design criteria; - Strengthening the Higher Council for Environment & Natural Resources (HCENR) as the national coordinating institution and quality assurer for NAMAs; - Establishment of a baseline for calculating emission reductions from grid-connected renewable energy through development of a tool for annually updating the emission factor of the national electricity system; and - Development and implementation of an MRV framework for the NAMA. 														
A.4 Sector	<table border="1"> <tr> <td><input checked="" type="checkbox"/> Energy supply</td> <td><input type="checkbox"/> Transport and its Infrastructure</td> </tr> <tr> <td><input type="checkbox"/> Residential and Commercial buildings</td> <td><input type="checkbox"/> Industry</td> </tr> <tr> <td><input type="checkbox"/> Agriculture</td> <td><input type="checkbox"/> Forestry</td> </tr> <tr> <td><input type="checkbox"/> Waste management</td> <td></td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other <input type="text"/></td> </tr> </table>	<input checked="" type="checkbox"/> Energy supply	<input type="checkbox"/> Transport and its Infrastructure	<input type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry	<input type="checkbox"/> Waste management		<input type="checkbox"/> Other <input type="text"/>					
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Other

B National Implementing Entity

B.1.0 Name	Ministry of Water Resources & Electricity (MWRE)
B.1.1 Contact Person 1	Salah El Gabo
B.1.2 Address	Nile Street, Khartoum
B.1.3 Phone	00249 1223484360
B.1.4 Email	salahelgabo@yahoo.com
B.1.5 Contact Person 2	Yasir Abdalla Said
B.1.6 Address	Ministry of Water Resources & Electricity (MWRE)
B.1.7 Phone	00249124940022
B.1.8 Email	sudanrenen@gmail.com
B.1.9 Contact Person 3	
B.1.10 Address	
B.1.11 Phone	
B.1.12 Email	
B.1.13 Comments	The NAMA is being developed as an activity within a broader UNDP-GEF project, "Promoting Utility-Scale Power Generation from Wind Energy" (GEF Project Management Information System - PMIS - number 4745).

C Expected timeframe for the implementation of the mitigation action

C.1	Number of years for completion	5
C.2	Expected start year of implementation	2014

D Currency

D.1	Used Currency	<input type="text" value="AED"/>
		Conversion to USD: 1

E Cost

E.1.1 Estimated full cost of implementation	500000
E.1.2 Comments on full cost of implementation	The cost figure of US\$250,000 is indicative and includes activities associated with the development of the feed-in tariff itself (e.g. estimation of regional (intra-Sudan) electricity generation costs so as to allow geographical differentiation of the FiT tariff) as well as the NAMA structure around the FiT (e.g. institutional arrangements, capacity development, MRV).
E.2.1 Estimated incremental cost of implementation	
E.2.2 Comments on estimated incremental cost of implementation	

F Support required for the implementation the mitigation action

F.1.1 Amount of Financial support	300000
F.1.2 Type of required Financial support	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Loan (sovereign) <input type="checkbox"/> Guarantee <input type="checkbox"/> Loan (Private) <input type="checkbox"/> Equity <input type="checkbox"/> Concessional loan <input type="checkbox"/> Carbon finance <input type="checkbox"/> Other <input type="text"/>
F.1.3 Comments on Financial support	The \$300,000 figure is indicative and includes support to the Ministry of Water Resources & Electricity (MWRE) and the Higher Council for Environment & Natural Resources (HCENR) to build their internal capacities to design and implement a FiT NAMA.

F.2.1 Amount of Technological support	200000
F.2.2 Comments on Technological support	The \$200,000 figure is indicative and includes support for: <ul style="list-style-type: none"> - Designing a guarantee mechanism for IPPs, so as to reduce counterparty payment risk in the context of the FiT. - Designing a carbon/climate finance 'window' for the FiT, so that - in the context of CDM, NMM, GCF and other potential future sources of climate mitigation finance - standard FiT payments can be augmented by additional premium payments that do not directly burden the Government of Sudan. - Undertaking a technical review of the FiT after 2-3 years of operation to assess its impact in catalysing renewable energy investment and to propose design changes (e.g. introduction of a degression schedule) if required.
F.3.1 Amount of capacity building support	
F.3.2 Type of required capacity building support	<input checked="" type="checkbox"/> Individual level <input checked="" type="checkbox"/> Institutional level <input type="checkbox"/> Systemic level <input type="checkbox"/> Other <input type="text"/>
F.3.3 Comments on Capacity Building support	Capacity development for staff and units within MWRE on integration of intermittent renewables into the grid; and for HCENR on the design and oversight of NAMAs.
F.4 Financial support for implementation required	<input type="checkbox"/>
F.5 Technological support for implementation required	<input type="checkbox"/>
F.6 Capacity Building support for implementation required	<input type="checkbox"/>

G Estimated emission reductions

G.1	Amount	
G.2	Unit	<input type="text" value="MtCO2e"/>
G.3	Additional information (e.g. if available, information on the methodological approach followed)	

H Other indicators

H.1	Other indicators of implementation
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I Other relevant information

I.1	Other relevant information including co-benefits for local sustainable development
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J Relevant National Policies strategies, plans and programmes and/or other mitigation action

J.1 Relevant National Policies	<p>1. Renewable Energy Master Plan (REMP) 2005 : Approximately 27 million people in Sudan lack access to electricity and the country as a whole has a 36% electrification rate. Sudan has set itself the target to increase electrification to 75-80% by 2020. The Master Plan, prepared under the UNDP-GEF 'Barrier Removal for PV Market Penetration in Semi-Urban Sudan' project, recognises that Sudan is endowed with diverse energy resources, ranging from biomass to hydro, solar, wind and geothermal, and calls for the use of these renewable energy sources to ensure the energy security of Sudan and to enhance access to electricity. In particular, REMP recommends the development of large-scale wind power over a near-term time</p>
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horizon, highlighting the potential of the Red Sea coast in particular, based on the experience of wind farm installations on the Red Sea coast in neighbouring Egypt.

2. National Strategic Vision 2001-2025: The Government of Sudan has formulated a 25-year strategic plan for the period 2001-2025, setting overall goals for economic development. The Vision is operationalised through rolling 5-year strategic plans. The Vision and NSP recognize the supportive role of the renewable energy sector in achieving the goals for economic development, both in terms of increasing the capacity of existing technologies (hydroelectricity and thermal) and through the addition of new renewables (e.g. wind, solar, geothermal and renewable biomass). Emphasis is placed on diversification of the electricity mix to ensure energy security and to enhance electricity access.

3. Second National Communication (SNC) to the UNFCCC: The SNC specifically identifies wind energy as being a high-potential climate change mitigation technology.

4. National CDM Strategy 2011: The Higher Council for Environment and Natural Resources (HCENR) has endorsed a national strategy to promote low-carbon projects through the CDM. This strategy states that wind energy is the most promising renewable energy option (over CSP and geothermal) in the short-term (i.e. within the next 5 years), a finding that is aligned with Sudan's current strategy to develop wind farms in Nyala (West Sudan), Dongola (North Sudan) and the Red Sea region.

6. Sudan's National Adaptation Programme of Action (NAPA, 2007) observes that disruptions to hydroelectric power generation - in terms of both the absolute quantity and reliability of electricity generation - will take place due to reduced precipitation arising from climate change, as well as increased variability in precipitation. The diversification of the electricity mix using utility-scale wind energy is seen as a viable means of enhancing the energy security of Sudan. Further, diversifying the renewable electricity base of Sudan with wind energy will provide the added global environmental benefit of avoiding future adaptation costs in the power sector. High levels of sedimentation in Sudan's large dams due to upstream land degradation are a severe threat to hydro-electric power generation.

J.2 Link to other NAMAs

K Attachments

K	Attachments	Title Description
K.1	Attachment description	
K.2	File	<input type="text"/> <input type="button" value="Browse..."/>

L Support received

L.1 Outside the Registry	The NAMA is being developed as an activity within a broader UNDP-GEF project, "Promoting Utility-Scale Power Generation from Wind Energy" (GEF Project Management Information System - PMIS - number 4745).
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L.2 Within the Registry

Support provided	SupportType	Amount	Comment	Date
Global Environment Facility (GEF) Trust Fund	Financial	3,500,000		7/13/ 2015 1:57:42 PM