

TERMS OF REFERENCE

Individual Contractor

1. Assignment Information

Assignment Title:	National Consultant for a Derisking Renewable Energy Investment ("DREI") Analysis and Report for Solar PV in Cambodia
Cluster/Project:	Policy Unit
Post Level:	Specialist
Contract Type:	Individual Contractor (IC)
Duty Station:	Home-based, Cambodia
Contract Duration:	15 days over the period of 14 weeks (from 12 May to 31 August 2017)

2. Project Description

Expanding access to electricity through solar energy will have positive impact to the country's economic growth as well as provide other co-benefits such as reduction in emission from fossil fuel, creating jobs in the rural areas, improving health condition through provision of clean technology, etc. Although solar PV technologies present promising opportunity for Cambodia, several issues remain barriers in up-scaling the technologies. First, the solar market in Cambodia is small and fragmented. There are many small companies selling solar products and only a few are supplying certified quality products. Another factor hampering adoption of solar technologies is inaccessible to affordable financing by the solar companies to expand their business models. Some policy makers are still reluctant to promote solar energy vis-à-vis coal based power generation and hydropower. There is also a lack of clarity on the government grid expansion, which does not encourage large investment on solar sector as a whole. There is an inadequate legal framework to regulate safety standard of solar PV products and incentive for excess solar electricity generation.

As part of the support to the Royal Government of Cambodia on promoting solar policy and the Green Climate Fund formulation, an analysis will be performed of the *solar PV technologies* (solar PV pumping, solar home systems, solar PV rooftop and solar at utility scale) in *Cambodia* using the Derisking Renewable Energy Investment ('DREI') methodology. DREI is an innovative approach to assisting policymakers in developing countries to cost-effectively promote investment in renewable energy.

The DREI methodology systematically identifies the barriers and associated risks which can hold back private sector investment in renewable energy. It then assists policymakers to put in place packages of targeted public interventions to address these risks. Each public intervention acts in one of three ways: either *reducing*, *transferring* or *compensating* for risk. The overall aim is to cost-effectively achieve a risk-return profile that catalyses private sector investment at scale. The end objective is reliable and affordable renewable energy solutions in developing countries.

More information on DREI, as well as a number of associated financial tools and guidance materials, can be found at www.undp.org/DREI. A detailed overview of the DREI methodology is found in the

original DREI report (2013). The objective of the financial tools has been to automate the various calculations behind DREI to a high degree, thereby making the application of the DREI methodology as efficient as possible.

3. Scope of Work

The scope of the consultancy is to undertake a number of activities related to performing a DREI analysis and assisting in preparing a DREI report for *solar PV technologies* (solar PV pumping, solar home systems, solar PV rooftop and solar at utility scale) in *Cambodia*. The final output of the consultancy will be a summary report of data collected for the DREI analysis, support provided to preparation of the DREI report. The main scope of work is to collect data for the baseline of solar PV technologies and reviewing the finding of the DREI analysis. The national consultant will perform the following tasks:

Task 1: Data collection and coordinating with stakeholders [Estimated: approx. 10 days]

- Assist the international consultant to gather market information, including existing/planned investments, market barriers and relevant stakeholders.
- Assist in arranging meetings for international consultant with stakeholders. Accompany international consultant to these meetings.
- Assist in gathering data on the baseline public instruments being implemented by the national government or other development actors in Cambodia. Obtain data on existing public instrument costs and benchmarks in Cambodia, to assist in costing of public instruments.
- Assist in gathering data and assumptions for the baseline technology and *solar PV technologies* (solar PV pumping, solar home systems, solar PV rooftop and solar at utility scale) in Cambodia, including capacity factors, fuel prices, existing subsidies, investment costs and operational costs.

Task 2: Report reviewing [Estimated: approx. 5 days]

- Support the international consultant by reviewing the findings of the DREI analysis and reviewing and commenting
- Share findings of the report with key stakeholders and bring stakeholders on board as champions for the report, building national buy-in for the report

4. Expected Outputs and Deliverables

N	Deliverables/Outputs	Target Due Dates	Review and Approvals Required
1.	Detailed work and mission plan submitted to UNDP for endorsement	3 rd week of May	Senior Policy Advisor
2.	A summary report of data collected for the baseline	4 st week of June	Senior Policy Advisor
3.	A summary report of support provided to the DREI analysis	3 rd week of August	Senior Policy Advisor

5. Institutional Arrangement

The national consultant will be performed under the supervision of the Senior Policy Advisor, UNDP Cambodia. The national consultant will be work closely and provide support to the lead International consultant. UNDP's Regional Technical Advisor, UNDP Bangkok Regional Hub and the Energy Finance Specialist, UNDP New York will be available to provide guidance on the DREI methodology during the consultancy.

6. Duration of the Work

The assignment is expected to be performed within 15 days over the period of 14 weeks (from 12 May to 31 August 2017)

7. Duty Station

The duty station of this assignment is a combination of home-based, Phnom Penh, Cambodia.

Selected individual contract(s) who is expected to travel to the Country Office (CO) to undertake the assignment in the country (Cambodia) is required to undertake the *Basic Security in the Field (BSIF) training*

(<https://dss.un.org/dssweb/WelcometoUNDSS/tabid/105/Default.aspx?returnurl=%2fdssweb%2f>)

prior to travelling. CD ROMs must be made available for use in environments where access to technology poses a challenge.ⁱ

8. Minimum Qualifications of the Individual Contractor

Education:	<ul style="list-style-type: none">▪ Bachelor's degree or equivalent in energy, engineering, finance, economics, international affairs, or other related field. Personnel with Master's or equivalent degrees will be at an advantage.
Experience:	<ul style="list-style-type: none">▪ At least 3 years' of experience with renewable energy investment.▪ Experience around public instruments to promote investment will be an advantage.▪ Excellent, research based financial modelling skills. Knowledge on LCOE modelling would be an asset.▪ Experience in liaising with stakeholders including government, CSOs and private sector.▪ Strong writing and drafting skills.
Competencies:	<ul style="list-style-type: none">▪ Experience with UNDP and/or UN agencies will be an advantage.▪ Strong analytical skills and exceptional ability in

	communication and networking, negotiations and writing. Flexibility and ability to operate in different cultural settings and with a variety of stakeholders; culturally and gender sensitive.
Language Requirement:	<ul style="list-style-type: none"> Fluency in English and Khmer are required.

9. Criteria for Evaluation of Level of Technical Compliance of Individual Contractor

Technical Evaluation Criteria	Obtainable Score
Bachelor's degree or equivalent in energy, engineering, finance, economics, international affairs, or other related field. Personnel with Master's or equivalent degrees will be at an advantage.	10
At least 3 years' of experience with renewable energy investment.	30
Experience around public instruments to promote investment.	30
Excellent, research based financial modelling skills. Knowledge on LCOE modelling would be an asset.	20
Experience in liaising with stakeholders including government, CSOs and private sector.	10
Total Obtainable Score:	100

10. Payment Milestones

The consultant will be paid on a lump sum basis under the following installments.

N	Outputs/Deliveries	Payment Schedule	Payment Amount
1.	Detailed work and mission plan submitted to UNDP for endorsement	<i>3rd week of May</i>	25%
2.	A summary report of data collected for the baseline	<i>4st week of June</i>	40%
3.	A summary report of support provided to the DREI analysis	<i>3rd week of August</i>	35%

ⁱ POPP: <https://intranet.undp.org/global/popp/cap/Pages/administration-of-travel-of-ic.aspx>