

## Annex I - Terms of Reference

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**National or International consultant:** National consultant

**Description of the assignment (Title of consultancy):** Energy expert – Short-term consultancy for the review of the greenhouse gas inventory and preparation of mitigation options and actions for the energy sector in Lebanon.

**Project Title:** Lebanon's Third Biennial Update Report and Fourth National Communication

**Period of assignment/services:** 30 work-days spread over a maximum of 4 calendar months

**Is this a LTA (yes/no):** No

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### 1. Background / Project Description

The project aims to enable Lebanon to prepare, produce and disseminate its Third Biennial Update Report (BUR) and Fourth National Communication to the UN Framework Convention on Climate Change (UNFCCC) in order to fulfill Lebanon's commitments as a Non-Annex 1 Party to the Convention. The reports present the country's GHG inventory, implemented sectoral mitigation actions that are contributing in reducing Greenhouse Gas (GHG) emissions, vulnerability and adaptation to climate change, in addition to the main barriers for fulfilling Lebanon's reporting requirements.

In 2019, Lebanon's 3BUR<sup>1</sup> was submitted to UNFCCC, reporting the national Greenhouse gas emissions from the period 1994-2015. The inventory was prepared using for the first time the 2006 IPCC guidelines<sup>2</sup>, which included changes in some emission factors and parameters. The 3BUR also updated the energy mitigation actions implemented in Lebanon, the support received and needed as well as the main gaps and constraints for capacity building needs. Lebanon is currently preparing its Fourth National Communication (4NC) to be submitted in October 2021.

The purpose of this consultancy is to 1) review the GHG inventory and precursors for the energy sector for the years 2016-2019 taking into consideration the methodological changes of the IPCC guidelines and the new activity data available; 2) update Lebanon's Technology Needs Assessment<sup>3</sup> for the energy sector, 3) update the list of mitigation actions and plans for the energy sector for the period 2016-2019 and 4) develop/update emission reduction scenarios for 2030 and 2050, in line with Lebanon's Nationally Determined Contribution (NDC).

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<sup>1</sup> [https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/258964017\\_Lebanon-BUR3-1-LEBANON-%20Third%20Biennial%20Update%20Report%202019.pdf](https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/258964017_Lebanon-BUR3-1-LEBANON-%20Third%20Biennial%20Update%20Report%202019.pdf)

<sup>2</sup> 2006 IPCC Guidelines for National Greenhouse Gas Inventories  
<https://www.ipcc-nggip.iges.or.jp/public/2006gl/vol2.html>

<sup>3</sup> <http://climatechange.moe.gov.lb/viewfile.aspx?id=150>

## **2. Scope of work, responsibilities and description of the proposed analytical work**

### **General tasks**

The tasks mentioned below shall be performed in close cooperation with the UNDP/Climate change team and the Ministry of Environment. The Consultant should report to the UNDP BUR3/National Communication Project Manager.

The UNDP climate change team will provide the consultant with the supporting documents needed to perform the below-mentioned tasks:

**Task 1:** (10 days) Provide technical support for the update of Lebanon's NDC for the energy sector

- 1.1 Review and validate the NDC baseline scenario to project GHG emissions from the energy sector for 2030 and 2050 under business-as-usual conditions;
- 1.2 Validate and provide the appropriate data and technical assumptions for the update of the unconditional and conditional scenarios of the NDC-energy sector, with close coordination with the Project Manager and Climate change Advisor.
- 1.3 Recommend a roadmap for the implementation of the updated NDC for the energy sector, circulate the report for comments and incorporate received recommendations from stakeholders in the final report.

**Task 2:** (10 days) Update Lebanon's Technology Needs Assessment<sup>4</sup> for the energy sector

- 2.1 Provide a sector's technological overview including national policies related to conventional technology transfer and technological innovation and status of current energy technologies/innovation in Lebanon;
- 2.2 Assess the progress and effectiveness of the implementation of previously prioritized technologies in Lebanon's TNA5 and update the list with new available technologies in energy with their main mitigation and co-benefits with a focus on smart technologies;
- 2.3 Prioritize at least 3 technologies based on a multi-criteria decision analysis and in close coordination with relevant stakeholders;
- 2.4 Update barriers, enabling framework and technology action plans as identified Lebanon's TNA5 for the deployment of the prioritized technologies.

**Task 3:** (5 days) Review of the GHG emission inventory for the energy sector (period 2016-2019)

- 3.1 Review and validate the activity data, emissions factors and parameters used by the climate change team for the preparation of the GHG emissions for the years 2016-2019
- 3.2 Provide correct activity data and parameters when needed and in consultation with the relevant stakeholders

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4 <http://climatechange.moe.gov.lb/viewfile.aspx?id=150>

**Task 4:** (5 days) Compilation of information related to mitigation actions in the power sector (period 2016-2019)

4.1 Identify all activities, policies and initiatives undertaken by MoEW and/or EDL to reduce emissions from power generation for the period 2016-2019;

4.2 Report these mitigation actions in a tabular format (annex I) including source of funding, budget, achievements, GHG emission reduction potential, etc.

### **Methodology of Work**

Direct consultations and validation with key stakeholders from the Ministry of Energy and Water and Electricity du Liban, in addition to other institutions when needed. The work is expected to be carried out by one nationally recruited consultant with expertise in energy and climate change and with an established network of experts in related national institutions.

### **3. Expected Outputs and deliverables**

In consultation with UNDP, the Consultant will:

1. Produce an NDC technical note including the roadmap for the updated NDC – power sector
2. Produce a Technology Needs Assessment report for the power sector
3. Produce a summary report of the review of the GHG inventory
4. Produce mitigation action tables for the power sector for the period 2016-2019

<b>Deliverables/ Outputs</b>	<b>Estimated Duration to Complete</b>	<b>Target Due Dates</b>	<b>Review and Approvals Required</b> <i>(Indicate designation of person who will review output and confirm acceptance)</i>
<b>NDC technical note</b>	10 work-days	2 months after contract signature	Project manager
<b>Technology Needs Assessment report</b>	10 work-days	3 months after contract signature	Project manager
<b>Summary review report</b>	5 work-days	4 months after contract signature	Project manager
<b>Mitigation action tables</b>	5 work-days	4 months after contract signature	Project Manager

### **4. Institutional arrangements**

a) The Consultant will be accountable to UNDP's climate change team, for all matters relating to the preparation of the deliverables, as well as abiding by the set deadlines. During this process, the Consultant will brief UNDP's climate change portfolio manager about the progress at least every two weeks. The supervision will include approvals/acceptance of the outputs as identified in the previous section.

b) In the event of delay, the Consultant will inform UNDP promptly so that decisions and remedial action may be taken accordingly.

c) Should the UNDP Country Office deem it necessary, it reserves the right to commission additional inputs, reviews or revisions (including omissions), as needed to ensure the quality and relevance of the final Report.

d) Any public speaking (including social media usage) about the activity (whether with the target groups or indirect) should be coordinated with UNDP.

## **5. Duration of work**

The consultancy is for 30 work-days and is expected to last for 4 calendar months from the signature of the contract.

## **6. Duty station**

The consultant's work will be home based with several meetings to be held with the project team and stakeholders.

## **7. Requirements for experience and qualifications**

The Consultant should possess the following minimum qualifications:

### **I- Academic Qualifications:**

- a. Bachelor degree (Masters is a plus) in environment or electrical/ mechanical engineering or closely related fields.

### **II- Experience:**

- a. Local relevant experience of not less than 10 years;
- b. Extensive knowledge of and experience in energy and national policies
- c. Previous experience in preparation of studies, reviews, sectoral recommendations
- d. Substantial knowledge of IPCC GHG calculations and guidelines

### **III- Competencies:**

- a. High proficiency in Arabic and English languages;
- b. Demonstrable analytical skills, such as an extensive list of publications, etc.;
- c. Excellent interpersonal and communication skills as well as ability to establish and maintain good relationship with stakeholders;
- d. Excellent facilitation skills; and
- e. Ability to meet deadlines and prioritize multiple tasks.

## **8. Scope of Price Proposal and Schedule of Payments**

Payments will be made upon submission and approval of deliverables and upon submission of the certificate of payment.

The schedule of payment is detailed below:

<b>Deliverables/ Outputs</b>	<b>Target Due Dates</b>	<b>Payment terms <sup>5</sup></b>
<b>NDC technical note</b>	2 months after contract signature	25 percent
<b>Technology Needs Assessment report</b>	3 months after contract signature	25 percent
<b>Summary review report</b>	4 months after contract signature	25 percent
<b>Mitigation action tables</b>	4 months after contract signature	25 percent

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<sup>5</sup> Payments will be processed once UNDP approves the deliverables

## Annex I

Name of mitigation action/project/plan/strategy				
General description of action and overall objective				
Type of support	Financial/ technical assistance / technology transfer/capacity building			
Source of support	Government	Private sector	Donor (specify)	NGO (specify)
Budget allocated				
Implementing agency				
Geographic Coverage				
Timeframe				
Goals of the mitigation action	(quantitative if possible)			
Progress indicators	(quantitative if possible)			
Main achievements and results				
GHG emissions avoided (Gg CO <sub>2</sub> eq. per year)				
Cumulative GHG emissions avoided for the project (Gg CO <sub>2</sub> eq.)				
Potential GHG emissions avoided for the whole period of project (Gg CO <sub>2</sub> eq.)				
Progress of implementation				
Steps envisaged to be taken to achieve that action				
Methodology and assumptions for emission reduction calculation				
Needs to improve reporting of mitigation action	Financial needs: Technical needs: Capacity building needs:			