

## Terms of Reference

UNDP/GEF Project: Moldova Sustainable Green Cities – Catalysing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach

Development of the study and guidelines related to the Development of the Electric Vehicle charging infrastructure in Moldova

**Duty station:** Chisinau, Moldova  
**Contract type:** Contract for professional services

In Moldova, the transportation sector is responsible for 14% of all greenhouse gas emissions. Moreover, transportation is the main contributor to the air pollution and currently air pollution that comes from the transportation sector is much higher than from industry ([https://www.climatelinks.org/sites/default/files/asset/document/2017\\_USAID\\_GHG%20Emissions%20Factsheet\\_Moldova.pdf](https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_GHG%20Emissions%20Factsheet_Moldova.pdf)). At the same time, considering growing tendencies of national economy, the number of cars on the road is increasing. According to official statistics, by the end of 2017 there were 938,058 vehicles registered in Moldova (out of which 284,051 were in Chisinau), and by 2020 it is expected that the number will increase by 1 Mn vehicles. 83 % of the existing vehicles are of 11 years of age or more (out of which 50% are 20 years old or more). The aging vehicle park increases the air pollution and premature death among Moldovan population. It is estimated that the economic costs of the premature deaths are 3.2 Billion dollars according to the WHO. At the same time, there were 5,114 hybrid vehicles in Moldova at the end of 2017 (of which 3,047 were imported during 2017), and 54 fully electric vehicles (EV), with an increasing trend for both type of vehicles. The increase in hybrid and EV interest is linked to customs incentives: hybrids receive a tax deduction of 50%, while EV's are exempted from any taxation. Also, the cost of second-hand EV (ex. Nissan Leaf) is not relatively higher than an ordinary gasoline vehicle. The major problem for the electric vehicles or plug-in vehicles users is the lack of proper charging infrastructure, which ultimately decreases the attractiveness for this type of transportation.

Electric Vehicles (EV), with zero emissions, are the most environmentally friendly option currently available on the market. For the last 10 years, the global development of the EV infrastructure increased substantially. Statistics report an increase in registration of electric cars by 70% between 2014 and 2015, and over 550,000 vehicles being sold. EV import in Georgia only in the past 1,5 year increased from 63 EVs to 1423 EVs. This massive jump occurred as direct result of development of charging stations (since the end of 2016).

In comparison, as of now, there are only, 4 public charging stations in Moldova, all of them being located in Chisinau.

### II. Project Background Information

The goal of this assignment is to conduct General Study and required analysis related to the Development of the Electric Vehicle charging infrastructure in Moldova" under the UNDP-GEF Project titled: **Moldova Sustainable Green Cities – Catalysing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach**. The project document was signed with the Implementing Partner in October 2017 and the implementation period will extend over the next 5 years. The proposed assignment is linked with the joint UNDP - Energy Efficiency Fund Project "Development of the Electric Vehicle charging infrastructure in Moldova" aiming at promotion of the electrical vehicles use through installation of the 10 charging stations in the country.

The objective of the Sustainable Green Cities project is to catalyze investments in low carbon green urban development based on integrated urban planning approach, by encouraging innovation, participatory planning and partnerships between a variety of public and private sector entities.

The strategy of the project is to create, launch and support a new institutional mechanism called "Green City Lab" (GCL) as a vehicle for encouraging and supporting new innovative measures and approaches in addressing the urban development challenges and barriers

The project therefore will support the design, launching, and establishment of the Green City Lab to become the leading knowledge management and networking platform, clearing house, an facilitator of financing various green urban development projects, and a source of innovations and expertise to catalyze sustainable low carbon green city development in Moldova with a mission to transform Chisinau and other cities/towns in Moldova into modern green and smart European cities with improved quality of life for their citizens, while also demonstrating opportunities for sustainable economic growth.

The Green City Lab will be set up during the first two years of the project however it is expected to transition to an independent self-sustaining entity, operating on a commercial basis, that does not rely on technical assistance funding alone, so that by the end of the project it can continue to operate and grow.

To achieve this status, the Green City Lab will need to forge new partnerships and alliances and generate revenues and carbon savings from other sources, beyond this project. The direct global environment benefits of the project are expected to reach at least 200,000 tons of CO<sub>2eq</sub>, resulting from the concrete pilot/demonstration projects in the building energy efficiency, transport and waste sectors. These are complemented by project's indirect GHG emission reduction impact at the estimated amount of 2.4 million tons of CO<sub>2eq</sub> by scaling up, replicating and mainstreaming the project results and activities, including those of the Green City Lab.

During the duration of this consultancy, the national consultant will report to the Green Cities Project Officer and Project Manager and to the Environment, Climate Change and Energy Cluster in UNDP Country Office and will provide required support to the project in view of support for development of the of the Electric Vehicle charging infrastructure in Moldova.

### **III. Duties and responsibilities:**

The contractor is requested to support Green City Lab (GCL) team in development of the Study and guideline related to the Development of the Electric Vehicle charging infrastructure in Moldova. The Contractor shall collect and determine what are the requirements under national and local legislation, as well as researches and proposals related on technical and commercial aspects for Development of the Electric Vehicle charging infrastructure in Moldova. This activity implies a partnership between local public authorities from Republic of Moldova, private sector and UNDP GCL. Based on researches performed, the Contractor will develop technical specifications for the equipment that will be procured by GCL, for development of the Electric Vehicle charging infrastructure in Moldova. Along with the specifications, the Contractor shall provide recommendations for charging stations locations, legal incentives for developing electric vehicles market, as well as the modifications or/and adoption of new laws normative acts. This pilot project should become an example of Development of the Electric Vehicle charging infrastructure in Moldova.

The Contractor will have the following responsibilities:

1. Provide guidance and knowledge on best international practices for the development of Electric Vehicle charging infrastructure in Moldova;
2. Perform meetings with main stakeholders and responsible actors in the field, including public sector to understand the national legislative framework, EV market potential, private and public sector potential and expectations and willingness to perter within the project;
3. Perform an analysis of all the legal, permissive and technical requirements for installation of the charging stations. This should include a list of documents and permissive acts (including issuing authorities, costs and timeframes) that should be obtain.
4. Development of the Study related to the Development of the Electric Vehicle charging infrastructure in Moldova. Feasibility study is recommended to include the following chapters:
  - legal and regulatory framework analysis (acting laws and normative acts, Orders and Resolutions, International Agreements, Conventions, EU directives and treatments

- Based on the legal and regulatory analysis, provide a set of recommendations for legislation amendment, including proposal for tax, fiscal, parking, “green numbers” and other types of incentives
- Best International practices and lessons learnt in the field
- Analysis of the existing electric vehicles on the market and their charging needs.
- Legal, permissive and technical requirements for installation of the charging stations
- Analysis of the available charging technological supplies on the market
  - Available Charging Technologies
  - Proposed charging technologies depending on the type of existing e-vehicles fleet and future market development potential.
  - Technical specifications of proposed charging stations
  - List of potential equipment suppliers from Moldova and abroad (including the equipment tentative price)
- Proposed locations in the city of Chisinau and in the country for EV charger’s installation (including special requirements if deviating from the previous point)
- Opportunities and development of the business model
  - Potential business partners
  - Recommendations for implementation of leasing model. A concept note, describing the UNDP vision regarding the business model, will be shared with the contractor.
  - Billing model and technical requirements.
- Collaborate with project experts to calculate GHG Emissions.

5. Draft ToR for the all necessary equipment and services related to EV charging infrastructure development

#### IV. Expected Deliverables and estimated timing

The assignment will be carried out as 5 weeks after signature of contract. All the deliverables shall be submitted within the timeframe shown in the table below:

	Deliverables	Estimated timing
1	Draft concept of methodology will be applied for General Study and guidance DEVCI in Moldova	By November 1, 2018
2	Draft General Study and guidance related to the Development of the Electric Vehicle charging infrastructure in Moldova	By November 15, 2018
3	Consultation process with key stakeholders	By 22 November, 2018
4	Final consulted version of the General Study and guidance related to the Development of the Electric Vehicle charging infrastructure in Moldova	By November 30, 2018
5	ToR for all necessary the equipment that will be procured by GCL, for Development of the Electric Vehicle charging infrastructure in Moldova	By November 30, 2018

#### V. Institutional arrangements:

The contractor will work under the direct supervision of the MSGC Project Manager. The contractor shall take overall responsibility on the quality and timeliness of the assessment process within its competency. The contractor is responsible for the compilation and editing of the draft material, presentation and the final product in Romanian language. The MSGC Project Manager and, Project Officer, will provide the contractor with the necessary information and materials and/or will facilitate the communication with the relevant public authorities for obtaining the necessary information to ensure the successful completion of the assignment.

##### • Staffing

The company shall indicate lead experts per areas of expertise. If the qualifications of certain expert correspond to the requirements of more than one area of expertise, than the expert can be proposed for that respective area, too. The number of planned man-days per expert/area of expertise need to be indicated in company’s proposal. Failure to provide adequate expertise in all areas of expertise is considered grounds for disqualification. The Company will ensure that all other necessary staff and additional technical resources required for efficient finalization of the work will be provided (e.g., logistical support for organizing various meetings and conducting field work).

##### • Timeliness and quality

The contractor's performance shall be assessed based on timeliness and quality of services. The contractor shall be notified of any deviation from the agreed schedules and standards, pursuant to which it will be required to remediate its performance. In case no satisfactory remediation shall be obtained UNDP reserves the right to terminate the contract.

- **Language**

The feasibility study and the all the complementary documents shall be prepared in Romanian. The final and interim reports shall be submitted in Romanian.

- **Legal and other requirements**

The content of the requested documents shall conform to the pertaining relevant legislation in the country and the international best practices and models.

- **Methodology**

Interested bidders should provide information on the name of expert(s) per area of expertise and the total number of working-days for each expert allocated for each area of expertise. The Contractor will ensure that all other necessary staff and additional technical resources required for efficient finalization of the work will be provided (e.g., logistical support for organizing various meetings and conducting field work).

- **Additional costs**

The company should calculate the possible costs associated with the current assignment such as staffing, transportation, logistics, acquiring various maps, layouts and other relevant documents or information required for successful finalisation of all tasks. UNDP shall not accept any additional expenses which are not included in the company's financial offer.

- **Submission of data, reports and other material produced**

All primary data, reports, and other documentation produced during this assignment shall be made available to UNDP in appropriate electronic format (word, excel, PDF, etc.) depending on the nature of its content. All data acquired, and products developed in the course of the assignment will be in the ownership of UNDP and cannot be used by the Contractor and its team without prior written permission.

- **Cooperation requirements**

The consulting team is expected to work closely with other experts from UNDP on parallel/complementary activities.

- **Consultations process**

The responsibility for facilitating the consultation process for the purposes of completion of tasks outlined hereto will be primarily responsibility of the Contractor. The Contractor shall be responsible for: preparation of working material and agenda, ensuring participation of the key team members as required, communication/coordination with the invited stakeholders (if deemed necessary), preparation of minutes etc.

- **Payment**

Payment for services shall be provided in two instalments as follows:

1. 40% of contract cost – After submission and approval of Draft General Study and guidance related to the Development of the Electric Vehicle charging infrastructure in Moldova ;
2. 60 % of contract cost – upon submission and approval of final consulted version of the General Study and guidance related to the Development of the Electric Vehicle charging infrastructure in Moldova and ToR for all necessary the equipment that will be procured by GCL, for Development of the Electric Vehicle charging infrastructure in Moldova

## **VI. Qualification requirements:**

- ✓ **Corporate experience:**

- At least 5 years of experience in developing business plans, feasibility studies, conducting surveys/market researches;
- Minimum 5 feasibility studies or investment planning projects developed in the past 3 years rendering an investment of at least 75,000 USD or equivalent;

- ✓ **Technical expert;**

- University degree in transport and transport infrastructure and/or other related fields;

- At least 5 years of professional experience in transport, transportation services domain or another relevant field;
- Minimum 4 previous assignments pertinent to conducting technical studies in the field of transport infrastructure;

✓ **Economist, financial expert:**

- University degree in accounting, finance, business administration, law, economics other related fields;
- At least 5 years of professional experience in public finance, accounting, data collection, analysis and research;
- Minimum 4 previous assignments pertinent to development of feasibility studies, economic modeling and investment planning projects;

✓ **Legal Expert**

- Bachelor's degree in law;
- At least 5 years of experience in jurisprudence, Law practicing; giving legal advice, drafting legal documents.