



TERMS OF REFERENCE

National Consultant to develop the School Curricula for the Optional Course on “Renewable Energy Sources” for 7th – 8th – 9th grade pupils

Reference to the project: Moldova Energy and Biomass Project
Expected workload: 25 consultancy days
Assignment timeframe: October – November 2015

A. BACKGROUND and CONTEXT OF THE ASSIGNMENT:

The first phase (2011-2014) of the Moldova Energy and Biomass Project (MEBP) with a budget of 14.56 million EUR project, funded by the European Union and UNDP and implemented by UNDP, succeeded to contribute to a more secure, competitive and sustainable energy production in the Republic of Moldova through targeted support to the most viable and readily available local source of renewable energy, which is biomass from agricultural wastes.

In 2015 the project entered its second phase in the framework of the Eastern Partnership Integration and Cooperation (EaPIC) programme, based on its continued high relevance and the clearly identified need to further support the consolidation of the emerging biomass market in the country. The extension timeframe spans until the end of 2017 with additional EU-funding of 9.46million EUR.

The main objective of the project extension is to scale up the successful activities and extend them to so far not covered or underrepresented regions, specifically Transnistria, Gagauzia and Taraclia, and to support the further consolidation of the Biomass market.

To achieve these objectives, the focus of EaPIC top-up activities will be the following:

- **Output 1. Municipal biomass heating and fuel supply markets established**
This component will aim at installing at least 80 additional biomass-based municipal heating systems in Moldova, with focus on Transnistria, ATU Gagauzia, Taraclia district and small towns. An increased focus will be on the further development of the domestic biomass fuel market in view of ensuring sustainable supply, enhanced competition between producers, application of quality standards, certification of products and end-consumer protection. Integrated renewable energy and energy efficiency solutions will be piloted to demonstrate the suitability of modern biomass-based heating systems for small towns;
- **Output 2. Foundations laid for the establishment of efficient household heating and heat supply markets and private sector demand promoted**
Under output 2, at least 100 households and/or small businesses will be supported to procure modern and efficient biomass boilers under preferential conditions. Technical and financial support will be provided for the creation of 7 new PPPs throughout the country. This will foster public-private solutions in establishing sustainable biomass-based heating services as well as efficient operation and maintenance of the systems;
- **Output 3. Capacity built for growth of biomass markets at regional and local levels**
The capacity development activities will continue to be a key element of the component, being tailor-made and extended to Transnistria, Gagauzia and the Taraclia district, as well as to small towns. Vocational education and training (VET) sector will also be addressed. School education activities on renewable energy and energy efficiency, the Bioenergy Summer Camps in particular, will be extended to small towns from Moldova, Taraclia district, Gagauzia and wherever feasible in Transnistria;

- **Output 4. The opportunities and benefits of biomass energy for Moldova are well known, visibility of project results is promoted**

Wide-spread awareness raising activities on the opportunities and benefits of biomass energy will be further facilitated, with a specific focus on increasing the uptake of renewable energy technologies in ATU Gagauzia, the Taraclia district, and the region of Transnistria. The visibility of the partnership and the impact of the action will be effectively promoted.

Getting the younger members of the society informed about the benefits of clean, low-cost energy that can be produced from renewable local sources, including biomass, will contribute to increasing the societal acceptance of biomass as a sustainable source of energy for Moldova and will bring a long-term change within the Moldovan society regarding energy efficiency and use of renewable materials.

In this context, educating the school children of 7th, 8th and 9th grades on renewable energy sources in general, and biomass in particular, within public schools from the MEBP target communities will contribute to the change of behaviour of the young generation.

Within the first phase of the Moldova Energy and Biomass Project (2011 – 2014), via its training and capacity development component, comprehensive educational activities for teachers and pupils from MEBP target localities were deployed. A Teacher's Guide (2012) and a Pupil Manual (2014) were developed to support the education initiative in schools. An optional course on "Renewable Energy Sources" for 7th-8th grade pupils was taught and more than 19000 pupils enhanced their knowledge in this regard. The optional course was taught based on an educational programme elaborated by a group of experts and endorsed by the Ministry of Education. However, with the last legal requirements, a school curriculum for the optional course approved by the National Committee for Curricula is needed.

Within MEBP II phase, the Educational Initiative will be further implemented and expanded not only to the newly identified target communities, but also by offering the optional course for 9th grade pupils.

B. OBJECTIVE OF THE CONSULTANCY:

The main objective of the assignment is to support the Ministry of Education and MEBP in its efforts to develop the school curricula for the 7th – 9th grade pupils for the optional course on "Renewable Energy Sources" and to assist the approval of the optional course curricula at the National Curricula Committee.

C. KEY ACTIVITIES:

In order to achieve the stated objective, the consultant is expected to perform the following tasks:

Preparatory work:

1. In-depth analysis of the available educational programme and educational materials pertaining to the optional course on „Renewable Energy Sources“, mainly the Teacher's Guide and the Pupil Manual elaborated in the MEBP I phase;
2. Consult the main stakeholders previously involved in the implementation of the optional course „Renewable Energy Sources“ – the Ministry of Education and school teachers - regarding the content of the educational materials and the teaching process of the optional course;
3. In parallel, study best practices at the regional and international level on elaborating school curricula for optional courses in the field of renewable energy, specifically biomass, and energy efficiency. Based on the comparative analysis of these curricula examples identify the most relevant model for Moldova. Specific examples of countries with similar experience that can be replicated in Moldova and practical recommendations for implementation shall be incorporated in the Final activity report;
4. Conduct a thorough analytical review of best practice and lessons learned during the MEBP I phase regarding the implementation of the optional course on "Renewable Energy Sources" for 7th-8th grade pupils;
5. Based on the conclusions reached after the completion of Activities 1, 2, 3 and 4, elaborate the school curricula for the optional course on "Renewable Energy Sources" for 7th – 8th – 9th grade pupils ;

6. Consult the content of the curricula with the respective department of the Ministry of Education and other relevant stakeholders: Agency for Energy Efficiency, Institute for Continuing Education, school teachers previously involved in the teaching process of the course, experts, etc.; Incorporate their comments and views where relevant.
7. Assist the Ministry of Education and the MEBP team with the presentation and endorsement of the newly elaborated school curricula for the optional course on "Renewable Energy Sources" for 7th-8th-9th grades at the National Curricula Committee meeting.

D. DELIVERABLES

Deliverable	Timeframe
Work plan for the assignment	02 October 2015
Analysis of the educational programme and educational materials pertaining to "Renewable Energy Sources" conducted	05 September 2015
Draft school curricula for optional course on "Renewable Energy Sources" developed	15 October 2015
Consultation meeting with the main stakeholders regarding the content of the curricula conducted	30 October, 2015
Final report including stakeholders comments and views	10 November 2015

E. MANAGEMENT ARRANGEMENTS:

The consultant will work in close cooperation with the Training and Capacity Building Officer and under the overall guidance of the Project Manager of Moldova Energy and Biomass Project.

PMT will put at the contractor's disposal all available materials and necessary information for the achievement of tasks and will facilitate the meetings, as needed.

F. QUALIFICATIONS

- University degree in Education, Social Sciences or a closely related field. An advanced degree or/and substantive relevant work experience would constitute an advantage;
- At least 7 years of progressive experience in school education management, teaching, education programme development;
- Minimum 3 school curricula developed in the past pertaining to biology classes, environment protection, ecological education or other school subject relevant to renewable energy and energy efficiency.
- Demonstrated understanding and knowledge of optional school program principles;
- Excellent analytical, writing, drafting and planning skills;
- Strong interpersonal and communication skills;
- Good understanding of the biomass market in Moldova would constitute an advantage;
- Excellent proficiency in Romanian and Russian. Knowledge of written and spoken English is an advantage.