



UNITED NATIONS DEVELOPMENT PROGRAMME TERMS OF REFERENCE / INDIVIDUAL CONTRACT

I. Job Information

Job Title:	International Consultant on Passive House criteria incorporation into the building codes in Uzbekistan
Type:	Individual Contract
Project Title/Department:	UNDP/NCE "Market Transformation for Sustainable Rural Housing in Uzbekistan"/Environment and Climate Action Cluster
Duration of the assignment:	20 w/d during December 2021 – March 2022
Duty station:	Home-based desk work and online meetings with project partners
Reports to:	Project Manager

II. Background

The UNDP/NCE and Government of Uzbekistan project on "Market Transformation for Sustainable Rural Housing in Uzbekistan" seeks to transform the rapidly growing rural housing sector in Uzbekistan towards a more sustainable and low-carbon development pathway by designing, piloting and scaling-up a green mortgage market mechanism, which will boost the demand for low-carbon housing among the Uzbek rural population thus reducing GHG emission. The project objective is to provide Uzbekistan's rural population with improved, affordable and environmentally friendly living conditions.

The project consists of four inter-linked outcomes. The first and principal outcome is the establishment of the green mortgage scheme to incentivize and eventually scale-up the demand for low-carbon housing. This outcome will be supported and enabled by three complementary outcomes related to strengthening domestic supply chain and capacities for construction of low-carbon housing (Outcome 2), introducing policies and regulations for low-carbon housing and settlements (Outcome 3), and raising public awareness about benefits and advantages of low-carbon housing (Outcome 4).

The project aims to strengthen minimum energy performance standards (MEPS) for buildings, as well as to ensure their compliance. Thus, providing national building codes for housing construction in rural areas are feasible criteria for the achievement of beyond-minimum requirements. The most recent review of the standards along with the residential buildings codes was conducted by the Ministry of Construction of Uzbekistan in 2018-2019. The project provides required technical assistance and support to ensure that scheduled revision of the codes includes more mandatory energy use requirements in line with best international standards. The project also assists in the application of the EU Directives on energy consumption in buildings¹, to the extent that this is possible and appropriate.

In 2018, within this project, JSC "ToshuyjoyLITI" has revised three building codes (SNiPs) that entered into force in 2018 (KMK 2.01.04-2018 "Building thermal engineering", KMK 2.01.18-00 "Norms of energy consumption for heating, ventilation and air conditioning of buildings and structures", KMK 2.04.16-96 "Solar hot water installation"), and two that entered into force in January 2019 (KMK 2.03.10 - 2019 "Rooftops and Roofs", KMK 2.03.13-19 "Floors"). Also, the project developed a wholly new building code (SNiP): SNK 2.04.15 - 20 "Photovoltaic Stations", which was enacted in September 2020.

The project is now seeking an International Consultant to assist with incorporation of the internationally adopted criteria and requirements (https://passiv.de/en/02_informations/02_passive-house-requirements/02_passive-house-requirements.htm) into the existing building codes indicated above and/or guide the national experts on development of a building code on passive house.

Under the overall supervision of the Project Manager, the International Consultant will be responsible for

¹ <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32010L0031>; and <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32012R0244>

providing the team of national experts with Passive House criteria through fulfilling the following tasks.

III. Functions / Key Outputs Expected

Activity 1: Preliminary analysis and planning

- Consider the Uzbekistan's climatic condition and environment and develop proposal on how the Passive House requirements related to a) Space Heating Energy Demand/Space Cooling Energy Demand; b) Renewable Primary Energy Demand; c) Airtightness of building envelop; d) Thermal comfort in house premises, etc. can be correspondingly adjusted;
- Conduct comprehensive analysis of international energy conservation codes/standards for Passive House developed and evolved over the past 5-10 years, and calculation methods/tools for assessing thermal bridges and quantifying heat losses, considering climatic and actinometric features of the country regions;
- Work with the team of national experts to specify issues, set milestones, and establish a timetable for the joint work, as well as to conduct a comprehensive analysis of the existing national laws, regulations, and empirical experience;
- Work with the project team, particularly with Task Manager on building codes (Component 3) and Task Manager on Promotion of low-carbon rural housing and settlements, toward finalization and approval of the work schedule and tasks' sequence.

Activity 2: Deliver technical support

- Conduct prompt support upon issues/questions occurred during the work on obtaining and upon reviewing the necessary baseline data of other international samples of similar/ close construction codes and standards;
- Analysis and assessment of climatic and actinometric database and other related inputs to develop a simulation model for Passive Houses meeting the associated requirements and standards.

Activity 3: Conduct online meetings with national partners of the project:

- Participate in online meetings with a representative of the national expert team and the project team to select key indicators and boundary conditions for the development of a Passive House simulation model adjusted to national climatic and environment conditions, including climate features in various regions of the country;
- Conduct online consultations with national experts, supported by dedicated project managers, on consistency of developed national norms/standards with international ones.

Activity 4: Submit report(s):

- Prepare a summary report on each individually developed national norm/standard, on the recommendations presented, and on improving the results (20-30 pages)

IV. Deliverables / Timeframe

The following deliverables and indicative schedule are expected from the consultancy contract. Exact dates of beginning and completion stages as well as scope of works for each phase can be corrected by the Project Manager based on reasonable justification by the consultant. The project reserves the right, if necessary, to amend the terms of reference of a consultant on a written agreement. The final schedule will be agreed upon in the beginning of consultancy assignment. All deliverables should be submitted to UNDP by the Consultant in English in e-version and then cleared by the Project Manager and approved by the Sustainable Development Cluster Leader.

The Consultant will be responsible for providing her/his own working station (i.e. laptop, internet, phone, scanner/printer, specific software if needed, etc.) and must have access to a reliable internet connection. The consultant will engage regularly by email, online ZOOM platform and/or phone on an as needed basis.

Deliverables	Timeframe	Payment structure
<p>Work plan and a report including a summary of:</p> <ul style="list-style-type: none"> • International Energy Conservation Code (IECC) and The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards relevant to passive houses and net zero energy buildings; • Standards of European countries for passive houses and net zero energy buildings; • Passive house planning/ design techniques; • Energy active windows and shading devices • Tested and approved passive house heating standards and approaches and calculation methodologies/tools • Selection and justification of the calculation tool/ model and establishment of boundary conditions, considering local climatic and actinometric conditions (5 w/d and 25% of the total assignment scope) 	December 20, 2021	35%
<p>Summary review on local team’s report (reviews, analysis, evaluation, verification of technical accuracy and approval) on simulation model preparation for the development of the nationalized standard for each criterion of Passive house which reflects online consultations, emergent issues, their solutions, and recommendations (4 w/d and 20% of the total assignment scope)</p>	March 15, 2022	65%
<p>Summary review of technical and methodological assistance on development the software product “Selection and justification thermal/cooling and structural parameters of Passive House considering climatic conditions of the country” (3 w/d and 15% of the total assignment scope)</p>		
<p>Summary review of methodological assistance on development of nationalized building codes for Passive House (or one unified building code, if feasible) and associated manual (5 w/d and 25% of the total assignment scope)</p>		
<p>Final report (comprising a summary of the fifth report of the local team, with recommendations on improvement of results achieved) included an Executive Summary (3 w/d and 15% of the total assignment scope)</p>	March 31, 2022	
V. Reporting		
All reports must be submitted in English to the Project Manager and Environment and Climate Action Cluster in UNDP Country Office in Uzbekistan and made in accordance with UNDP templates requirements.		
VI. Management arrangements		
The international consultant will work under the guidance of the Environment and Climate Action Programme, UNDP Uzbekistan.		
VII. Financial arrangements		
Applicants are required to submit an aggregated financial offer (“aggregated financial offer” is the total sum of all financial claims of the candidate for accomplishment of the task), which includes proposed consultancy fee, international travel costs, visa costs (if required), daily subsistence allowance (for accommodation, meals, and local transport/communication).		

Payments will be disbursed in two installments (35% and 65%) upon timely submission of respective deliverables (#1 and #2, #3, #4, #5) and approval and certification by the Project Manager, and Environment and Climate Action Cluster in UNDP Country Office that the services have been satisfactory performed.

VIII. Recruitment Qualifications

Education:	University degree (at minimum, a Master's degree or equivalent, PhD is desired) in architecture, civil engineering, construction engineering, energy engineering, buildings design, energy efficiency or related fields
Experience:	<ul style="list-style-type: none"> • At least five (5) years of progressively responsible working experience in development of building codes; • Professional knowledge, good understanding of energy efficiency, passive house design, Passive House criteria and requirements as well as calculation methodologies for building energy modeling and design for passive buildings; • Proven experience in conducting high-level consultations and reporting skills; • Sound knowledge of best international practices related to Passive Housing; • Proven working experience in the relevant field in the Eastern Europe, CIS countries. Relevant working experience in the Central Asia countries is an asset; • Proven working experience with international development organization in promoting energy efficiency and passive house techniques is an asset
Language Requirements:	Proficiency in written and spoken English is required. Sound knowledge of Russian is an asset.
Competencies:	<p>Demonstrates integrity and fairness by modelling UN values and ethical standards;</p> <p>Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;</p> <p>Excellent communication skills;</p> <p>Excellent analytical skills;</p> <p>Strong oral and writing skills;</p> <p>Extensive knowledge of PC applications;</p> <p>Focuses on result for client and responds positively to feedback;</p> <p>Consistently approaches work with energy and a positive, constructive attitude;</p> <p>Remains calm, in control and good humored even under pressure;</p> <p>Ability to work independently as well as part of a fairly big team;</p> <p>Ability to operate under strict time limits.</p>

IX. Evaluation of Applicants

Criteria for Evaluation of Proposal: Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

Cumulative analysis

The award of the contract shall be made to the individual consultant whose offer has been evaluated and determined as:

- a) responsive/compliant/acceptable; and
- b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria

specific to the solicitation.

Technical Criteria weight: 70% of total evaluation (70 points)

- Education, relevant working experience, and language skills (10 points)
- Sound experience with development of building/ construction norms, codes and/ or standards (10 points)
- Proven experience in promotion of international best practices for the development of sustainable, energy-efficient passive house design techniques (10 points)
- Technical knowledge of development, modelling and calculation of energy consumption for heating/cooling needs, including utilization of renewable energy to generate electric and thermal energy in passive buildings (15 points)
- Proven experience focused on energy efficient and low-carbon buildings in the Eastern Europe and CIS countries, preferably in the Central Asia region (10 points)
- Brief description (max 1 page) approach to work/ technical proposal on how s/he will implement and complete the assignment (15 points)

Only candidates obtaining a minimum of 49 points would be considered for the Financial Evaluation

Financial Criteria weight: 30% of total evaluation (30 points)

Total Score = Technical Criteria (max. 70 points) + Financial Criteria (max. 30 points)

X. Application procedures

Applicants are requested to apply online through the UNDP website at <http://www.uz.undp.org> Application shall be submitted by indicated deadline. Incomplete applications or applications received after the closing date will not be given consideration. Application should contain a current and complete C.V. with indication of the e-mail and phone contact. Shortlisted candidates will be requested to submit a price offer indicating the total cost of the assignment (including daily fee, daily subsistence allowance and travel costs). Incomplete applications will be excluded from further consideration.

Interested individual consultants must submit the following documents/information to demonstrate their qualifications:

- a) **Letter of Confirmation of Interest and Availability** using the [template](#)¹ provided by UNDP;
- b) **CV** and a **Personal History Form** ([P11 form](#)¹);
- c) **Brief description of approach to work/technical proposal** on how s/he will implement and complete the assignment; (max 1 page);
- d) **Financial Proposal** – specifying a total lump sum amount for the tasks specified in this announcement. The financial proposal shall include a breakdown of this lump sum amount (number of anticipated working days, and travel, daily subsistence allowance and any other possible costs, if any) and in accordance with the table provided in Annex I to this TOR.

UNDP is an equal opportunity employer. Qualified female candidates, people with disabilities, and minorities are highly encouraged to apply. UNDP Balance in Manage Policy promotes achievement of gender balance among its staff at all levels.

IX. Signatures- Post Description Certification

Incumbent (*if applicable*)

Name

Signature

Date

Mr. Timur Ibragimov
Project Manager

Signature

Date

**Annex I Aggregated Financial Offer of the International Consultant
International Consultant/Lead Expert on Low-Carbon Rural Housing Project Design**

	#of units*	Units	Rate/USD	Total/USD
Work in home office**				
Home based work	20	man/days		
		man/days		
		man/days		
TOTAL				

*Estimates are included in the TOR, the applicant is requested to review and revise, if applicable

**Add rows as needed

Please, note that the **financial proposal is **all-inclusive** and shall consider various expenses incurred by the consultant/contractor during the contract period (e.g. fee, health insurance, vaccination and any other relevant expenses related to the performance of services, etc.).*

Payments will be made only upon confirmation of UNDP on delivering on the contract obligations in a satisfactory manner.

*Individual Consultants are responsible for ensuring they have **vaccinations**/inoculations when travelling to certain countries, as designated by the UN Medical Director. Consultants are also required to comply with the UN security directives set forth under dss.un.org*

I agree to perform this assignment for a lump sum of _____ USD, including international travel costs

Name: _____

Signature: _____

Date: _____ / _____ / **2021**

This offer remains valid for a period of 3 months from the date of signature of this document.