PROJECT CONCEPT NOTE

Project Title	Enhancing national capacities to develop and implement energy efficiency standards for buildings in the UNECE region
Project Manager	Oleg Dzioubinski
Subprogramme	Sustainable Energy and Housing, Land Management and Population
Implementing Entity	UNECE
Start Date	01.07.2020
End Date	31.03.2022
Budget	200,000 USD
Beneficiary Countries	UNECE member States – in particular countries of South-Eastern and Eastern Europe, the Caucasus, and Central Asia
Cooperating Entities within the UN System	-
Other Implementing Partners	Members of UNECE's High Performance Buildings Initiative (leading universities and UNECE international centres of excellence)

1. Background

A brief description of the development issue the project intends to address

The target 7.3 of the Sustainable Development Goal 7 is to "double the global rate of improvement in energy efficiency by 2030". There is significant potential worldwide for improving energy efficiency, even though the significant progress is indeed being made. Improving energy efficiency is one of the most cost-effective options for meeting growing energy demand in most countries. It contributes to energy security, a better environment, improved quality of life of both men and women, and their economic well-being. Out of all sectors of economic activity, the buildings sector has the largest potential for cost-effective improvement in energy efficiency and emissions reductions. The project is aimed to improve energy efficiency in buildings with a focus on residential buildings and reduce greenhouse gas emissions in the UNECE region through enhancing capacity, best-practice guidance in order to help member States to evaluate the most effective policies and enforcement mechanisms that can be there so that they could achieve greater energy savings.

Reference to the UNECE intergovernmental legislation calling for action

The Committee on Sustainable Energy and the Committee on Urban Development, Housing and Land Management established the Joint Task Force on Energy Efficiency Standards in Buildings in 2015. In 2017, both Committees extended the mandate of the Joint Task Force on Energy Efficiency Standards in Buildings for 2018-2019 with a possibility of further extension and endorsed the Framework Guidelines on Energy Efficiency Standards in Buildings (ECE/ENERGY/GE.6/2017/4 and ECE/HBP/2017/3). The principles of the Framework Guidelines provide guidance for planners, builders, and the entire building delivery and management chain as elements of innovative sustainability strategy. These principles shift the building industry paradigm from fragmented and serial to holistic and integrated. In 2019, the Committee on Sustainable Energy and the Committee on Urban Development, Housing and Land Management approved the amended Terms of Reference for the Joint Task Force on Energy Efficiency Standards in Buildings of the ECE Region for 2020-2021 and extended its mandate for 2020-2021 with a possibility of extension.

The Geneva UN Charter on Sustainable Housing, which is a non-legally binding document that aims to support member States as they seek to ensure access to decent, adequate, affordable and healthy

housing for all, was endorsed by the United Nations Economic Commission for Europe on 16 April 2015 (E/ECE/1478/Rev.1). The Charter promotes the following four principles and related rationales form the basis of sustainable housing: (a) Environmental protection; (b) Economic effectiveness; (c) Social inclusion and participation; and (d) Cultural adequacy.

The Geneva Ministerial Declaration on Sustainable Housing and Urban Development was adopted by the Ministers and the Heads of Delegation participating in the Ministerial Segment of the seventy-eighth session of the UNECE Committee on Housing and Land Management in 2017. The Ministerial Declaration reiterates the importance for governments at all levels and relevant stakeholders in the UNECE region to promote the implementation of the 2030 Agenda for Sustainable Development, the New Urban Agenda, the Geneva UN Charter on Sustainable Housing and other relevant global and regional commitments.

The project directly supports the achievement of the Expected Accomplishment (b) "Increased awareness of the role of energy efficiency and renewable energy in achieving sustainable energy development" of the Subprogramme 5 "Sustainable Energy" and contributes to the achievement of Expected Accomplishment (a) Improved capacity for formulation and implementation of evidence-based policies in housing, urban development and land management of Subprogramme 8 "Housing and Land Management" of the approved ECE Strategic Framework for the period 2018-2019.

How the project links to the overall normative and analytical work of UNECE and UNECE comparative advantage in this area

The project derives from UNECE's work on best policy practices for energy efficiency and is connected directly to the work plan of the Group of Experts on Energy Efficiency. This project will promote the implementation of the Framework Guidelines for Energy Efficiency Standards in Buildings and the outcomes and recommendations of the studies on Mapping of Energy Efficiency Standards in Buildings and Mapping of Technologies to Enhance Energy Efficiency in Buildings in the UNECE region[1], will continue to provide capacity building through interactive training seminars for policy makers, building sector professionals, and other stakeholders from energy and housing sectors based on the training course on high-performance energy efficiency standards in buildings developed by UNECE, and maintain a network of national and international experts in the field.

The project also builds on the work of the Committee on Urban Development, Housing and Land Management (CHLM) and its Real Estate Market Advisory Group (REM) on the guidelines on condominium management, which were developed in 2010 and updated in 2018 at the request of member States[2]; and on the Committee's studies, such as Green Homes[3], Good Practices for Energy Efficient Housing[4] and others.

Explanation how the project activities will contribute to the 2030 agenda for sustainable development

SDG 7 of the 2030 Agenda for Sustainable Development is to "Ensure access to affordable, reliable, sustainable and modern energy for all". The goal is to be met through the following actions:

- By 2030, ensure universal access to affordable, reliable and modern energy services
- By 2030, increase substantially the share of renewable energy in the global energy mix
- By 2030, double the global rate of improvement in energy efficiency

[1] https://www.unece.org/energywelcome/areas-of-work/energy-efficiency/activities/energy-efficiency-in-buildings.html
[2] http://www.unece.org/fileadmin/DAM/hlm/sessions/docs2018/Info_doc_3_Condo_Guidelines.pdf
[3] http://www.unece.org/index.php?id=30772
[4] http://www.unece.org/index.php?id=35186

- By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
- By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries.

Energy is at the heart of the 2030 development agenda and addressing the climate change challenge. Improving energy efficiency and energy productivity, particularly in buildings, industry and transport, will reconcile the world's growing need for energy services with the impact that energy resource development has on the natural resource base.

Information on beneficiary countries and target audience

The target group includes all stakeholders from the UNECE region (in particular, from the countries of South-Eastern and Eastern Europe, the Caucasus, and Central Asia), notably architects, building contractors and energy service companies, housing and energy efficiency policy makers at the municipal, regional, and national levels, representatives of academia conducting research and training in the field of energy efficiency of buildings, representatives of civil society and other experts in this area. Three countries will be selected for developing national studies with a detailed gap analysis between the performance objectives of the Framework Guidelines for Energy Efficiency Standards in Buildings and implementation of current building energy efficiency standards and for conducting national training seminars on high-performance energy efficiency standards in buildings. Preliminary list of countries from which three countries will be selected: Armenia, Kyrgyzstan, Republic of Moldova, and Serbia.

The lessons learned and achievements from past activities in those countries, and/or complementary activities which are currently ongoing

The UNECE publication Promoting Energy Efficiency Standards and Technologies to Enhance Energy Efficiency in Buildings (http://www.unece.org/index.php?id=53312) has shown that there is still much room for improvement in the setting and application of such standards in the countries of the UNECE region. In many countries there are challenges both with strictness and with enforcement of these standards. The evaluation results of the training seminar on high-performance energy efficiency standards in buildings held in St. Petersburg on 5-7 September 2018 showed critical importance of informing the professionals of best practices in policies, legislation, and norms in energy efficiency in buildings, of discussing main barriers in implementation of high-performance standards for various building types, of reviewing practical cases of retrofitting of existing building stock, and exploring the ways and means to attract investments to implement energy efficiency measures in buildings. Participants of this event expressed their satisfaction with delivering information through an interactive training and their willingness to deepen their understanding of the topics mentioned above as well as to get more information on modern energy efficiency technologies used in buildings.

The evaluation report of the previous project funded by the Russian Federation provided *inter alia* the following recommendations: 1) Continue building the capacity and expertise of member States in EESB in a way that would ensure multiplier effects and system changes on a large-scale. This could be done through delivering multilevel workshops and seminars which would incorporate: generic information-sharing on certain research topics (at the first level); and more advanced technical workshops on a selected topic (e.g. energy auditing, monitoring energy performance, model situations in a specific country context, etc.); 2) Assist the UNECE member States in taking practical steps toward addressing EESB through introducing an interactive format of workshops and seminars, incorporating group work practices on specific cases/assignments, and encouraging the participants to assess their national situations and developing country roadmaps along with S.M.A.R.T. (Specific, Measurable, Attainable, Relevant, Time-bound) indicators and targets to improve EESB; 3) Continue cooperation with other UN agencies to organize workshops and share their real-case experience in implementing projects on EESB in UNECE countries (e.g. the projects implemented by UNDP/GEF) which would serve as a practical guide for attendees.

Therefore, this project will build on UNECE's previous activities in the area of energy efficiency standards in buildings, further develop understanding of the status of energy efficiency standards in buildings based on the competed studies, and focus more on building capacity through trainings in 4 selected countries of the UNECE region (specifically from the sub-regions of South-Eastern and Eastern Europe, the Caucasus, and Central Asia) to accelerate the dissemination of current best practices and bring the region closer to attainment of the 2030 Agenda for Sustainable Development.

A brief description of how a gender perspective will be integrated in the project strategy

An important goal of the project is to improve the overall performance of buildings, leading among other benefits to reduced energy consumption. However, this goal may only be achieved in the context of ensuring appropriate quality of life as it relates to the built environment: indoor air quality, ambient temperature, humidity, lighting, and other characteristics, as well as functioning of a building as part of the urban system (which includes transportation, energy, communications, water, and other utility services), considering the needs of both men and women. In line with the UNECE policy for Gender Equality and the Empowerment of Women, the project will seek to create a supportive environment for expert participation, tailored towards the needs of both men and women.

Implementing partners (national, regional and international), if any

The proposed project will be implemented as a part of a larger project aimed at the development and implementation of energy efficiency standards or guidelines for buildings. The proposed project is conducted under the auspices of the Joint Task Force established under the Committee on Urban Development, Housing and Land Management and the Committee on Sustainable Energy (led by the Group of Experts on Energy Efficiency). It will engage in a consultation process with national governments and a range of regional and international partners and stakeholders (architects, building contractors, Global ABC, Copenhagen Centre on Energy Efficiency, other international organizations, housing and energy associations, and NGOs). It is expected that the organization of national training seminars will be supported through selected countries' in-kind contributions to cover costs for venue and facilities, and any other local expenses related to the participation of the national policy makers and experts from these countries. Experts from the Russian Federation are expected to participate in project activities. The Russian Federation will be included as one of the countries in the gap analysis to be undertaken under activity A1.1.

2. Project impact

Improving energy efficiency in buildings is one of the most cost-effective options for meeting growing energy demand and reducing greenhouse gas emissions in most countries. Following the completion of the project it is expected to achieve significant change in improving the knowledge of policy makers and experts from UNECE member States of the energy efficiency standards, their enforcement mechanisms and energy efficient technologies in buildings by conducting trainings with deep dives into areas of major interest, including: establishing and enforcing energy efficiency norms and procedures; barriers to energy efficiency standards implementation; investments into energy efficiency projects; introduction of energy management systems in cities, especially in the housing sector; and effective functioning of energy service companies (ESCOs). Improved knowledge as the main impact of the project will be ensured by tailoring training materials according to country-specific conditions and needs, and target audience. The impact will be evidenced by conducting an impact discovery on how member States use and implement best practices and guidelines provided by ECE activities in their national or/and sub-national measures to address the issues of energy efficiency in buildings. UNECE expects that at least three countries will use and implement the guidelines and best practices as a result of this project activities, and at least 80 participants will have improved their knowledge of advanced energy efficiency standards in buildings through national training seminars and workshops. All UNECE member States will benefit from the developed training materials, which would provide further guidance to UNECE member States on the topic and complement the activities carried out up to date.

3. Relationship to the Programme Budget and the Sustainable Development Goals

The project is directly linked to the objective of the Subprogramme 5 "Sustainable Energy" "to ensure access to affordable and clean energy for all and reduce greenhouse gas emissions and the carbon footprint of the energy sector in the region" and to the objective of the Subprogramme 8 "Housing, land management and population" "to advance decent, adequate, affordable, energy-efficient and healthy housing for all in liveable cities and human settlements, sustainable land management and evidence-based population and social cohesion policies" of the UNECE programme budget for 2020.

SDG 7 of the 2030 Agenda for Sustainable Development is to "Ensure access to affordable, reliable, sustainable and modern energy for all". One of the targets under SDG 7 is to double the global rate of improvement in energy efficiency. Since energy efficiency in buildings has the largest potential for cost-effective improvement in energy efficiency this project will contribute to global emissions reductions.

Additionally, this project will contribute to SDG 11 "Make cities and human settlements inclusive, safe, resilient and sustainable", and particularly to its targets on enhancing sustainable urbanization, reducing the adverse per capita environmental impact of cities, increasing the number of cities and human settlements adopting and implementing integrated policies and plans towards resource efficiency, mitigation and adaptation to climate change, and supporting least developed countries in building sustainable and resilient buildings. Moreover, focusing on the buildings sector brings significant social co-benefits, such as: increasing energy security, expanding entrepreneurial opportunities, creating jobs, reducing energy poverty, increasing access to energy services, improving air quality (both indoor and outdoor), increasing people's comfort and health which takes into consideration the needs of men and women in line with the UNECE policy for achieving SDG 5 "Achieve gender equality and empower all women and girls". The project will seek to create a supportive environment for expert participation, tailored towards the needs of both men and women.

4. Objective

The objective of the project is to enhance capacity of the UNECE member States to develop and implement energy efficiency standards for buildings, with a focus on residential buildings.

The project will also introduce energy efficiency technologies, overcoming barriers to tightening energy efficiency standards and accelerating uptake of energy efficient technologies through improved knowledge of best practices in this field.

5. Expected accomplishments

EA1. Improved knowledge of advanced energy efficiency standards in buildings in the ECE region by ECE member States.
EA2. Enhanced and up-to-date network of experts from public and private sectors on energy efficiency in buildings in the ECE region.
EA3. Strengthened capacity of national authorities, building sector professionals, homeowner associations and other relevant stakeholders to develop and implement advanced energy efficiency standards in buildings and introduce energy efficient technologies at the national and sub-national levels.

6. Indicators of achievement

IA1. At least 80 participants from three selected countries improved their knowledge of advanced building methods through national training seminars and workshops (evidenced by the event evaluation of participants).
IA2. At least 30 new experts identified and added to an online database of experts on energy efficiency in buildings

IA3. At least three countries used and implemented best practices and guidelines provided by ECE in their national and/or sub-national measures to address the issues of energy efficiency in buildings (evidenced by the impact discovery).

7. Main activities

A1.1. Conducting a gap analysis between the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings and current energy efficiency standards and their implementation in the countries of South-Eastern and Eastern Europe, the Caucasus, Central Asia, and in the Russian Federation. The gap analysis will address barriers to adopting and implementing high-performance standards in housing with a focus on financing energy efficiency measures in and maintenance of multiapartment housing.
A1.2. Developing three national studies[5] with a more detailed gap analysis between the performance objectives of the Framework Guidelines for Energy Efficiency Standards in Buildings and implementation of current building energy efficiency standards.
A2.1. Maintaining and updating the network of experts from public and private sectors on energy efficiency in buildings in the ECE region.
A2.2. Organizing a workshop for stakeholders from the energy and housing sectors to validate the gap analysis.
A3.1. Organizing national training seminars in the three selected UNECE member States[6] on high-performance energy efficiency standards in buildings.
A3.2. Organizing a workshop for stakeholders from the energy and housing sectors to discuss and launch the regional and national studies.
A3.3. Conducting an impact study on how member States could better use and implement best practices and guidelines developed by ECE activities in their national or/and sub-national measures to address the issues of energy efficiency in buildings.

8. Risks and mitigation actions

Risks	Mitigating Actions
Low degree of implementation of acquired knowledge by training participants	Involvement of government officials from the start of project implementation, involvement of them in the work of the Joint Task Force on Energy Efficiency Standards in Buildings of the ECE Region and maintaining regular consultations with stakeholders in the countries

However, it is assumed that the energy efficiency standards in member States are reasonably available and that the community of experts on energy efficiency in buildings is relatively easy to track and engage.

9. Monitoring and Evaluation

The UNECE project manager will be responsible for regular monitoring of the project implementation. The progress of the project will be reported annually by preparing the progress reports. The final report will be prepared upon completion of the project. The reports, materials and information related to the project will be shared on Project Monitoring Tool (PMT). In addition, a questionnaire will be developed by the project manager to evaluate the impact, effectiveness and long-term sustainability of training and workshops organized within the project. The questionnaire will be circulated regularly, after each workshop in the beneficiary countries among participants in the workshops.

[5] Preliminary list of countries from which three countries will be selected: Armenia, Kyrgyzstan, Republic of Moldova, and Serbia.
[6] Same as above.

ANNEX 1

Project Budget

Code	Object class	Activity/ Purpose	Units	Cost per unit (USD)	Total amount per object class (USD)
010	Staff and personnel *(staff)*	A1.1. To conduct a gap analysis between the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings and current energy efficiency standards and their implementation in the countries of South-Eastern and Eastern Europe, the Caucasus, Central Asia, and in the Russian Federation A1.2. To coordinate the preparation of three national studies on the gap analysis (preparation of TOR for consultants, contract support, works acceptance) A2.1. To maintain and update the network of experts on energy efficiency in buildings in the ECE region A2.2. To organize a workshop for stakeholders from the energy and housing sector to validate the results of the study on the gap analysis A3.1. To organize national training seminars in the three selected ECE member States on high-performance energy efficiency standards in buildings A3.2. To organize a workshop for stakeholders from the energy and housing sectors to launch and discuss the regional and national studies A3.3. To conduct an impact discovery on how member States used and implemented best practices and guidelines provided by ECE activities in their national or/and sub-national measures to address the issues of energy efficiency in buildings	P2 x 8 months	10,000	80,000 [7]
010	Staff and personnel *(consultants)*	A1.2. To develop three national studies with a more detailed gap analysis between the performance objectives of the Framework Guidelines for Energy Efficiency Standards in Buildings and implementation of current building energy efficiency standards	3 national consultants x 4 months x $1,000 per month	1,000	12,000
010	Staff and personnel *(consultants)*	A3.1. To develop and conduct national training seminars in the three selected ECE member States on high-performance energy efficiency standards in buildings	1 consultant x 3 trainings x $7,000	7,000	21,000
010	Staff and personnel *(consultant travel)*	A3.1. To participate in national training seminars in the three selected ECE member States on high-performance energy efficiency standards in buildings	1 consultant x 3 missions x $1,500	1,500	4,500
160	Travel of Staff	A2.2. To participate in a workshop for stakeholders from energy and housing sector to validate the results of the gap analysis between	1 staff member x 3 missions x	1,500	10,500

[7] The project is for 21 months in total with 8 months of staff time budgeted. The P2 staff will be delivering substantive activities that require thorough substantive and managerial expertise. The total amount requested for staff is slightly higher than average of 30-35% from the total budget.

		the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings and current energy efficiency standards and their implementation in the ECE region A3.1. To participate in national training seminars in the three selected ECE member States on high-performance energy efficiency standards in buildings A3.2. To participate in a workshop for stakeholders from the energy and housing sectors to launch and discuss the regional and national studies	$1,500 2 staff members x 2 mission x $1,500		
160	Travel of meeting participants	A2.2. To participate in a workshop for stakeholders from energy and housing sector to validate the results of the gap analysis between the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings and current energy efficiency standards and their implementation in the ECE region A3.2. To participate in a workshop for stakeholders from the energy and housing sectors to launch and discuss the regional and national studies	30 participants x $1,500	1,500	45,000
125	Operating and other direct costs	A2.2. A workshop for stakeholders from the energy and housing sector to validate the results of the gap analysis between the performance objectives set forth in the Framework Guidelines for Energy Efficiency Standards in Buildings and current energy efficiency standards and their implementation in the ECE region A3.1. National training seminars in the three selected ECE member States on high-performance energy efficiency standards in buildings A3.2. A workshop for stakeholders from the energy and housing sectors to launch and discuss the regional and national studies	Stationery, office supply, business cards Hospitality costs related to workshops and training seminars	1,000 1,500	2,500
Budget Sub-Total					175,500
13% UN Programme Support Cost					22,815
Total budget					198,315
1% coordination levy					1,983
Grand total (rounded)					**200,000**

Upon receipt of the new contribution from donor(s), when issuing the released budget for the new project, apart from the deduction of the required standard 13% UN Programme Support Costs, 15% operating reserve of the estimated annual expenditures during the year will be deducted from the cash available balance, which will be released during the last year of the project implementation.

ANNEX 2

Assessment of Gender Mainstreaming in UNECE Projects

Project Analysis/Justification	**How central is gender equality to the objectives of this project?**
	☐ Gender equality is the principal objective or one of the key objectives of the project ■ Gender equality has a moderate or minor role in the objectives of the project ☐ Gender equality is not among the objectives of the project.
	Comments/evidence:
	To what extent is this project expected to contribute to gender equality and the empowerment of women?
	☐ It will make a significant contribution ■ It will contribute in some way, including limited or marginal contributions ☐ It is not expected to make a noticeable contribution.
	Comments/evidence:
	Does the background/context analysis of the project:
	☐ examine the different situations, roles, needs and challenges faced by women and men? ☐ analyze whether women and men will be differently affected by the project (in terms of their benefits, rights, needs, roles, opportunities, etc.)?
	Comments/evidence: It contributes to energy security, a better environment, improved quality of life of both men and women, and their economic well-being. In line with the UNECE policy for Gender Equality and the Empowerment of Women, the project will seek to create a supportive environment for expert participation, tailored towards the needs of both men and women.
	Does the project justification explicitly take into consideration any of the following?
	☐ International gender equality frameworks (such as the Beijing Platform for Action) ■ International frameworks with a clear gender component (SDGs, human rights instruments, etc) ☐ Country-specific gender policies or commitments, e.g. National Gender Action Plans
	If so, specify which: SDG 5, UNECE Policy for Gender Equality and the Empowerment of Women
UNECE Policy and Gender Action Plan	**Does the project correspond to any of the strategic objectives specified in the UNECE Policy for Gender Equality and the Empowerment of Women for your Sub-programme (refer to page 16 of the policy document for these objectives)?**
	■ Yes ☐ No
	If so, which? Mainstreaming gender in UNECE activities, contributing to reducing gender inequalities in UNECE member States
Data	**Will the project do any of the following to analyze and track gender issues?**
	☐ collect or produce sex-disaggregated or gender-relevant data
	☐ make use of sex-disaggregated or gender-relevant data
	☐ produce sex-disaggregated or gender-relevant qualitative indicators
	☐ make use of sex-disaggregated or gender-relevant qualitative indicators
	■ gather information on the proportion of female and male beneficiaries?
	If yes, explain: at the stage of evaluation of trainings and workshops the information on the proportion of female and male beneficiaries will be gathered
Results framework	**In what ways, if any, are the following designed to meet the different needs and priorities of women and men?**
	Outcomes:
	Outputs:
	Activities:
	Does the results framework include the following?
	☐ gender responsive indicators or targets*
	☐ a baseline to monitor gender equality results
	Comments/evidence: The project results are tailored towards the needs of both men and women. Trainings and studies are an effective way to improve energy efficiency in buildings by applying best practices and technologies in buildings in UNECE members States, which benefits both women and men. In this case there is no possibility or particular need to explore the different needs and priorities of women and men.

**A gender-responsive indicator is one which permits analysis of the differential impacts of the project on women or girls as compared to men or boys; or one which assesses the project's impact on outcomes that are specific to a particular gender. The simplest form of gender-responsiveness is sex-disaggregation, but more subtle gender-responsive indicators can include measures of many things which affect women and men differently or meet their specific needs: for example, services, resources or facilities that are used differently by women and men or meet their specific needs: for example, services, resources or facilities that are used differently by women and men.*