

# D 2.8 Toolkit of standardized documents

RenoHUb H2020 project

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### **PROJECT PARTNERS**

**AACM:** AACM Central Europe Llc

ENERGIAKLUB: Energiaklub Climate Policy Institute and Applied

**Communications Association** 

IMRO: IMRO-DDKK Non-profit Ltd

MCSTE: Hungarian Family House Owner Organization

MEHI: Hungarian Institute for Energy Efficiency

### 1. OBJECTIVES OF THE RENOHUB PROJECT

The energy demand of the residential sector accounts for approximately one-third of the final energy consumption in Hungary. The domestic residential building stock has an enormous potential for energy savings. Based on recent estimates, approximately two-thirds of the 4.4 million homes in Hungary are energetically outdated, and with appropriate energy renovation approximately 40 to 50 percent of the final energy currently used could be overall saved. Besides the reduction of energy overhead cost, deep energy renovation of residential buildings offers an increase in the real estate value. At the same time, energy refurbishment at large scale can significantly contribute to meeting the national climate and energy policy targets. According to estimations by experts, approximately 80–100 thousand apartments would need to be refurbished each year in order to prevent further aging of the building stock, whilst the actual yearly renovation rate is far below.

RenoHUb aims to trigger a significant upscale of the energy retrofits of the Hungarian residential building-stock. The project is based on the assumption, that the rate of the energy renovation of homes can be significantly increased by eliminating the technical, financial and legal barriers of the refurbishment process and providing adequate technical support to the homeowners. The key outcome of RenoHUb will be the implementation of a Renovation Hub (RenoHUb) model that is based on a "one-stop-shop" scheme, aiming to support the energy renovation of the Hungarian residential building stock. The "one-stop-shop" model is proved to be powerful instrument to accelerate home retrofits, and it successfully works in several European countries. RenoHUb will consist of an Online Platform and network of information offices (called RenoPont offices). RenoHUb services will be able to seamlessly cover the entire spectrum of energy renovation process for both the multi- apartment and single-family buildings.

### 2. PRESENTATION OF WP2

The overall objective of WP2 is to substantiate the RenoHUb model and to identify the main driving forces and also the barriers of home renovation. Activities under the relevant work package includes mapping the entire value chain of home retrofit, which will form the backbone of the RenoHUb model starting from social, behavioral, communication and capacity building aspects through supporting the project appraisal, decision-making for home renovation, mobilization of financing, and selection of the appropriate technologies and installers as well as the technical implementation up to ex-post assessment of energy and cost saving. With the help of this it will be possible to identify the barriers that hinder the efficient scale-up of the energy efficiency refurbishment of the Hungarian homes covering both the multi-family and single-family home segments. As part of the WP2 the project partners will address the further assessment and deeper understanding of those barriers through primary and/or secondary research. Based on the results one of the final steps is to develop the concept of the RenoHUb model and a standardized document toolkit.

WP2 combines relatively smaller, targeted tasks for structuring/inventorisation of the information which is largely available within the Consortium, and more extensive

D2.8. Toolkit of standardized documents

assessment in areas where inherent added value is delivered to the presently available collective knowledge. The activities carried out within the framework of the WP2 work package rely in particular on:

- patented decision-making tools and documents developed for the renovation of multi-apartment buildings by IMRO and ÉMI (Non-profit Limited Liability Company for Quality Control and Innovation in Building)
- the methodology developed by MCSTE for the assessment of renovation needs of single-family houses which was awarded by the Hungarian Quality Product Award.

Under the WP2 work package a total number of 8 tasks (T2.1–T2.8) are specified. This document (D2.8) build on the results obtained during the development of the task T2.2 (Inventory of the technical/engineering elements of the home renovation process).

### 3. DESCRIPTION OF T2.8 AND D2.8

RenoHUb aims to trigger a significant upscale of the energy retrofits of the Hungarian residential building stock. The energy renovation of residential buildings is to a large extent not tackled despite their high energy saving and CO2 reduction potential. The project is based on the assumption, that the rate of the energy renovation of homes can be significantly increased by eliminating the technical, financial and legal barriers of the refurbishment process and providing adequate technical support to the homeowners throughout the renovation process. RenoHUb intends to adopt the "one-stop-shop" scheme that is proved to be powerful instrument to accelerate home retrofits, and it successfully works in several European countries. RenoHUb will consist of an Online Platform and network of information offices (called Information Hotspots). RenoHUb services will be able to seamlessly cover the entire spectrum of energy renovation process for both the multi-apartment (condominiums) and single-family buildings.

The purpose of T2.8. described in the present Report is to (i) provide a technical toolkit for energy renovation of multi-apartment buildings and (ii) also for the energy retrofit of single-family homes. These standardized documents and contracts are to be available the RenoHUb one-stop-shop hotspots (RenoPonts) and will be also accessible via the RenoHUb Online Platform. As a consequence, the RenoHUb project will be able to (i) offer a transparent consultancy service through the hotspots to residential stakeholders with the elaborated toolkit of standardized documents and also to (ii) publicly share the standardized documents on the Online Platform, thus technically supporting the grass-root private renovation initiatives.

In order to be consistent with the previous RenoHUb activities, the structure of standardized documents (D.2.8.) was elaborated according to the renovation process description of D.2.2. both in case of multi-apartment buildings and single-family houses. In this regard, even if the legal validity of the toolkit is attested, it must however be emphasized that the standardized legal documents and templates may exclusively be considered as guides. The RenoHUb partnership does not assume legal liability of their use in specific retrofit processes. As a consequence, the utilization or adoption of the

# standardized documents must be performed with the involvement of legal advice or further technical support of the RenoPont network.

### 3.1 Toolkit for the renovation of multi-apartment buildings

Compared to the energy renovation of family houses, the renovation of condominiums is a complex process in decision-making, technical, legal and mediation terms. However, the condominium renovation offers the opportunity for a more standardized approach. The condominium renovation requires appropriate preparation and expertise on the part of both the condominium manager and the technical experts and installers in order to carry out the renovation processes properly. The following key challenges need to be effectively addressed in order to carry out the renovation work effectively:

In Hungary, the functioning of condominiums and the decision-making of the apartment owners is regulated by Act CXXXIII of 2003. An in-depth knowledge of the law is an essential prerequisite for the implementation of energy renovations in condominiums, so both the condominium managers and the contractors involved must have relevant legal knowledge to avoid legal disputes during the retrofits.

According to the Condominium Act, the energy renovation of condominiums must be voted on by the residential assembly in the appropriate number and proportion. However, despite simple provisions, decision-making can often be the subject of internal conflicts due to the different preferences and interests of the tenants. Managing these often requires the application of mediation skills by the condominium manager.

In addition to legal and mediation skills, the condominium manager must also possess the appropriate technical knowledge. All this allows the energy renovation to be carried out with maximum efficiency according to the needs and demands of the condominium tenants.

That is why it is utmost important that the condominium manager coordinating the renovation work is adequately trained and prepared to solve all three challenges. In many cases, however, the required knowledge and experience are not available at the level of condominiums, in which case it will be necessary to involve a facilitator expert/company with appropriate references in condominium energy renovations in order to provide professional support to the condominium manager.

In order to support the work of the condominium manager and the involved facilitator, the RenoHUb toolkit incorporates the following standardized documents to be used from the beginning until the finalization of the renovation works:

Annex Oa\_Residential building renovation, resulting in energy consumption reduction (process description): As a very first step, the complexity of the condominium renovation should be understood in their entirety to avoid complications/misunderstandings at the later stages. For this aim, the attached description ensures a suitable and practical guide.

**Annex 1\_Conflict Management Guide:** The guide assists who to handle and resolve disputes between the members of housing community as well as those between the apartment owners or their representatives and the selected contractors.

Annex 2\_Call for the Assembly of the Condominium: As the renovation process must adhere to the Hungarian condominium law, the tenants should be involved in the decision-making process at least in the initial stages and in choosing the subcontractors. Therefore, the of Assembly of Condominium must be summoned for launching the entire process and get the legal approval of the condominium representative upon making the further steps. This template can be used for initiating the meeting.

Annex 3\_ Example of presentation for the assembly on building renovation: If an external facilitator company is involved in the renovation process, it can make the project implementation more efficient and comprehensive. Of course, it requires additional money to be spent but the added-value provided by a facilitator worth the extra cost. For such a purpose, the attached contract template can be used for hiring the selected facilitator company.

Annex 4\_ Contract template for technical assessment and energy certification: The template provides a model for the preliminary activities that are required a condominium assembly to be able to decide on initiating the energy renovation. These activities include in particular the assessment of the baseline energy performance of the building, planned renovation targets and scenarios as well as the required measures, costs and energy saving.

**Annex 5\_ Template of minutes of the Condominium's assembly:** This template can be used during the condominium's assembly to record the agenda, the key results and other significant details of the meeting.

Annex 6\_ Template resolution by the Condominium members: The attached general template is to be used for documenting the final decision-making of the condominium meeting. It must be signed and filled by the elected representatives of the homeowners with a clear indication of subject such as the proposed subcontractor(s) whom the condominium shall sign a contract.

**Annex 7\_Energy status survey:** This document is a methodological description of the assessment of the energy performance of multi-apartment buildings.

**Annex 8\_Energy performance certificate:** At the beginning of the energy renovation planning, an energy certificate should be issued by a certified energy expert involved by the facilitator or the installer to document the baseline energy performance of the building. The attached file serves only as a reference for the condominium managers to be aware of the details of such a document.

Annex 9\_Offer for retrofit process facilitation: As the condominium retrofits are complex processes, it is recommended to hire a facilitator company that will be responsible for the management of the entire renovation package. For such a purpose, the attached template can be used as a template to be singed between the condominium manager and the facilitator company.

**Annex 10\_Contract for retrofit process facilitation:** Annex 10 provides a model for contracting energy retrofit facilitation support for condominiums.

Annex 11\_Statement of transparency: Before signing any contract, the condominium manager must make sure by requesting the selected subcontractor to complete the attached template of the legally binding transparency statement in which the selected legal or private person must declare that the entity to be contacted is transparent and is not sanctioned for any legal non-compliance.

Annex 12\_ Call for tender for installers: In case of condominium energy retrofits, the condominium representative must request price offers from external experts (technical expert, energy expert, facilitator, constructor) in order to make a well-prepared decision before contracting. The attached template and its annexes can be used for this aim in every kind of related procurements.

Annex 13\_Minutes for decision of the installer selection process: The process of selection of the installer should be a transparent and democratic process in compliance with the relevant provisions of the condominium deeds. The template refers to the documentation of the result of the bidding process.

Annex 14\_Draft contract for technical inspection supervision: In case of condominium retrofits, the complexity of construction works requires the involvement of an independent technical supervisor to ensure appropriate technical control during the entire renovation process. The attached template can be used in contracting the selected technical supervisor indicating each relevant legal provision of the Hungarian construction law.

**Annex 15\_Draft contract for installers**: Following the bidding process the condominium manager signs the contract with the selected construction company. The attached template can be used in contracting the selected construction company including each relevant legal provision of the Hungarian construction law.

**Annex 16a\_Handover record of the work area:** Also, when the work area is handed over to the installer, an attached declaration of handover must be signed by the condominium manager, the construction company and the technical supervisor.

Annex 16b\_Attendance sheet of the handover record of work area: This paper is to record all attendees of the handover process (appendix of the handover record of the work area).

**Annex 17a\_ Technical handover minutes:** When the construction company declares the renovation as complete, a technical handover process starts to record warranty claims. The technical handover is recommended to be attended by the apartment owners and technical supervisor.

**Annex 17b\_ Technical handover minutes attendance sheet:** This paper is to record all attendees of the handover process (appendix of the technical handover protocol).

**Annex 18\_ Certificate of completion:** When the construction company declares the renovation as complete, a certificate of completion must be issued by the condominium manager to the construction company. The paper must be countersigned by the technical supervisor attesting that the renovation was finalized in compliance with the technical plans.

It is important to emphasize that <u>the attached toolkit of standardized documents can</u> <u>only be considered as an indicative basic package</u>, which can be expanded with additional elements according to individual needs while renovating different condominiums. Therefore, in order <u>to avoid legal problems with confidence, it is worthwhile to carry out the renovation work with the background support of RenoHUb hotspots.</u>

### 3.2. Toolkit for the renovation of single-family buildings

In the second part of the toolkit, the essential standardized documents for single-family household renovations are presented. As these types of construction works are much more complex than the renovation of the multi-apartment buildings in terms a wide variety of buildings and a broader spectrum of triggers and drivers of building retrofit, therefore it is difficult to develop a wide range of specifically tailored templates and technical documents.

The general experience is that energy efficiency renovations (also) are often ordered and carried out without a contract and invoice (to save the VAT) or by not professional contractors. This currently raises many problems, in terms of warranty issues, and is conserving the grey zone of the economy. The attached templates and documents prepared help to ensure that the finally selected and well-prepared technical content tailored to the family home owner's building and the budget are within the appropriate limits. The contracts were given the latest and most empirically usable content of the Hungarian contract law, as defined in the latest Building Act now available, together with the COVID paragraph. (Of course, COVID19 can no longer be considered as force majeure, as we know the effects on the economy, on contractual relations, etc.). The proposed templates can be optimally used for the following two types of construction works:

When the homeowner knows exactly what he wants, everything is clear, there are finalized technical plans with an accepted budget. This is an easiest situation because it allows everything to be planned and carried through easily.

When homeowner does not yet know exactly what he wants, but intends to start one of the potential renovation steps. So, the work may start as soon as possible, but the plans, technical content and budget are still to be prepared later. This can be controlled, by a

framework with a main contract, and with individual purchase orders for individual renovation tasks. In this way, the technical content and budget can gradually be identified, assessed and implemented.

Accordingly, the single-family household part of D2.8. includes the following templates as standardized documents:

Annex Ob\_Residential building renovation, resulting in energy consumption reduction (process description): The document describes the initial operative steps of the renovation of single-family houses such as the launching of professional consultation and the infrastructural evaluations.

**Annex 19\_ Preparation and customer information:** In the attachment, users can be informed about the different aspects and parts of the entire insulation framework to be realized during the renovation works.

Annex 20\_Details of energy saving renovation processes: The document lists the technical options of energy saving in single-family houses.

**Annex 21\_ Expected rates of energy saving:** The summary indicates the estimated efficiency rate of certain types of insulations to give guidelines for property owners and constructors.

**Annex 22\_ Warranty and quality guarantee:** In order to avoid misunderstandings and complications, the attached documents provide instructions upon the necessary warranty and quality standards of the home renovation process.

Annex 23\_Design documentation needed for the building renovation process: The document lists the technical design and permit requirements in relation to single-family building renovation.

**Annex 24\_ Framework contract for the general contractor:** The template is a framework contact model for engaging a general contractor for more individual retrofit projects (staged renovation).

**Annex 25\_Installer contract:** Following the successful consultation among the household owners and the constructor company, the attached template of constructor contract may be adopted and signed by the parties.

**Annex 26\_ Handover record of the work area:** The attached file is a template to be used at the initial handover of the households to be renovated. By signing the document, it gives authorization to then constructor to launch the work and enter the property.

Annex 27\_ Certificate of completion (for single houses): When the household renovation is finalized, this template can be used for attesting the proper realization of the planned technical content. Also, in case of justifiable technical claims – defined by the construction

contract – the household owners can require the constructor to make minor supplementary works on the renovated house.

#### **4.LIST OF ANNEXES**

The annexes listed in Section 3.1 and 3.2 are appended to this report in Hungarian language. Each document is identified by their title in Hungarian. Chapter 4 lists the title of the appended documents in English and Hungarian.

### 4.1 Multi-apartment buildings

Categorisation by Deliverable D2.2		by Deliverable D2.2	Township of the Board Hills To Hills in Francisch	Templates titles of the RenoHUb Toolkit in
Main work phase	Step	Description of steps	Template titles of the RenoHUb Toolkit in English	Hungarian
I.Preparatory works	0.	Awareness raising and needs assessment (Assembly L)	Annex 0a_Residential building renovation, resulting in energy consumption reduction (process description)     Annex1_Conflict Management Guide     Annex2_Coll for the assembly of the condominium     Annex3_Example of presentation for the assembly on building renovation     Annex4_Contract template for technical assessment and energy certification     Annex5_Template of minutes of the Condominium's assembly     Annex6_Template resolution by the Condominium members	Annex 0_Lakóépület energia-felhasználás csökkenését eredményező épületfelűjítás     Annex 1_ Konfliktuskezelési útmutató     Annex 2_Társasházi közgyűlés összehívása     Annex 3_Lakógyűlés mintaprezentáció épületfelűjításról      Annex 4_Megbízási szerződés műszaki felmérésre és energiatanúsításra     Annex 5_Társasházi közgyűlés jegyzőkönyv      Annex 6_Lakóközösségi határozati javaslat
	1.	Energy assessment and renovation plan	> Annex 7_Energy status survey > Annex 8_ Energy performance certificate	<ul> <li>Annex 7_Energetikai állapotfelmérés</li> <li>Annex 8_Energetikai minőségtanúsítvány</li> </ul>
	2.	Decision-making on acceptance of renovation plan and initiation of renovation (Assembly II.)	Annex 2_Call for the assembly of the condominium     Annex 9_Offer for retrofit process facilitation     Annex 10_Contract for retrofit process facilitation     Annex 11_Statement of transparency     Annex 5_Template of minutes of the Condominium's assembly     Annex 6_Template resolution by the Condominium members	Annex 2_Társasházi közgyűlős összehívása     Annex 9_Bonyolítái ajánlat     Annex 10_Bonyolítáisi megbízási szerződés     Annex 11_Átláthatósági nyilatkozat     Annex 5_Társasházi közgyűlés jegyzőkönyv      Annex 6_Lakóközösségi határozati javaslat

Categorisation by Deliverable D2.2		by Deliverable D2.2	Template titles of the RenoHUb Toolkit in English	Templates titles of the RenoHUb Toolkit in	
Main work phase	Step	Description of steps	Template titles of the kenohob Toolkit in English	Hungarian	
II. Selection of partners and preparation of	4.	Selection of installer and financier (Assembly III,)	Annex 2_Call for the assembly of the condominium     Annex 12_ Call for tender for installers     Annex 13_Minutes for decision of the installer selection process     Annex 14_Draft contract for technical inspection supervision     Annex 5_Template of minutes of the Condominium's assembly	Annex 2_Társasházi közgyűlés összehívása     Annex 12_Kivítelezői árajánlattételi felhívás     Annex 13_Beszerzési eljárás döntési     jegyzőkönyv      Annex 14_Megbízási szerződés műszaki ellenőri     tevékenységre     Annex 5_Társasházi közgyűlés jegyzőkönyv	
renovation work			Annex 6_ Template resolution by the Condominium members	Annex 6_Lakóközösségi határozati javaslat	
	5.	Contract with installer incl. technical designs and/or permitting (if required) – to be implemented by the installer	> Annex 15_Draft contract for installers > Annex 11_Statement of transparency	> Annex 15_Kívítelezői vállalkozói szerződés > Annex 11_Átláthatósági nyilatkozat	
	6.	Handover of building for renovation	> Annex 16a_Handover record of the work area > Annex 16b_Attendance sheet of the handover record of work area	Annex 16a_Építési munkaterület átadás- átvételi jegyzőkönyv     Annex 16b_Építési munkaterület átadás- átvételi jelenléti ív	
III. Building renovation	7.	Renovation work and technical supervision	Annex 15_Draft contract for installers     Annex 14_Draft contract for technical inspection supervision	Annex 15_Kivitelezői vállalkozói szerződés     Annex 14_Megbízási szerződés műszaki ellenőri tevékenységre	
	8.	Technical handover	Annex 17a_ Technical handover minutes     Annex 17b_ Technical handover minutes     attendance sheet	Annex 17a_Műszaki átadás-átvételi nyilatkozat     Annex 17b_Műszaki átadás-átvételi jelenléti ív	
	9.	Certification	> Annex 8_ Energy performance certificate	> Annex 8_Energetikai minőségtanúsítvány	
IV. Ex-post activities	10.	Management of warranty claims	> Annex 18_ Certificate of completion	> Annex 18_Teljesítési nyilatkozat	

### 4.2 Single-family buildings

Categorisation by Deliverable D2.2		n by Deliverable D2.2		Templates titles of the RenoHUb Toolkit in	
Main work phase	Step	Description of steps	Template titles of the RenoHUb Toolkit in English	Hungarian	
I. Preparation activities and	0.	Initial contact and information	Annex 0b_Residential building renovation, resulting in energy consumption reduction (process description)     Annex 19_ Preparation and customer information     Annex 20_Details of energy saving renovation processes     Annex 21_ Expected rates of energy saving     Annex 22_ Warranty and quality guarantee     Annex 23_Design documentation needed for the building renovation process	<ul> <li>Annex 0_Lakóépület energia-felhasználás csökkenését eredményező épületfelújítás</li> <li>Annex 19_Előkészítés, vevőtájékoztatás</li> <li>Annex 20_Energiahatékonysági felújítási folyamatok</li> <li>Annex 21_Energiamegtakarítási értékek</li> <li>Annex 22_Uótállás és szavotosság</li> <li>Annex 23_Épületfelújítási folyamat szükséges tervdokumentációi</li> </ul>	
project design	1.	Identification of technical and energy targets (Meeting L)	> Annex 4_ Contract template for technical assessment and energy certification	<ul> <li>Annex 4_Megbízási szerződés műszaki felmérésre és energiatanúsításra</li> </ul>	
	2.	Conceptual design and cost estimate	> Annex 8_ Energy performance certificate	> Annex 8_Energetikai minőségtanúsítvány	
	3	Decision-making, contracting, schedule (Meeting <b>II.</b> )	> Annex 12_ Call for tender for installers > Annex 24_ Framework contract for the general contractor > Annex 25_Constructor contract	<ul> <li>Annex 12_ Kivitelezői árajánlattételi felhívás</li> <li>Annex 24_Generálkivitelezői keretszerződés</li> <li>Annex 25_Kivitelezői vállalkozási szerződés</li> </ul>	
	4.	Handover of building for renovation	> Annex 26_ Handover record of the work area	<ul> <li>Annex 26_Munkaterület átadás-átvételi jegyzőkönyv</li> </ul>	
II. Building renovation	5.	Renovation work and technical supervision	Annex 24_ Framework contract model for general construction contractor     Annex 25_ Draft contract for installers     Annex 14_Draft contract for technical inspection supervision	<ul> <li>Annex 24_Generálkivitelezői keretszerződés</li> <li>Annex 25_Kivitelezői vállalkozási szerződés</li> <li>Annex 14_Megbízási szerződés műszaki ellenőri tevékenységre</li> </ul>	
	6.	Technical handover	> Annex 26_ Handover record of the work area	Annex 26_Munkaterület átadás-átvételi jegyzőkönyv	
	Certification	> Annex 8_ Energy performance certificate	> Annex 8_Energetikai minőségtanúsítvány		
III. Ex-post activities	8.	Management of warranty claims	> Annex 27_ Certificate of completion (for single houses)	Annex 27_Teljesítési igazolás	