



D4.1 Pilot project selection report

QualDeEPC H2020 project

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“High-quality Energy Performance Assessment and Certification in Europe
Accelerating Deep Energy Renovation”

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PROJECT PARTNERS

WI: Wuppertal Institut für KLIMA, UMWELT, ENERGIE gGMBH

CRES: Centre for renewable energy sources and saving

DENA: Deutsche Energie-Agentur GmbH (dena)

EAP: Energy agency of Plovdiv Association

EKODOMA

ENERGIACLUB: Energiaklub Szakpolitikai Intezet Modszertani Kozpont Egyesulet

E-P-C: EPC Project Corporation Climate. Sustainability. Communications. mbH

FEDARENE: Federation europeenne des agences et des regions pour l'energie et l'environnement

ESCAN: Escan SL

CIT ENERGY MANAGEMENT AB

DISCLAIMER OF WARRANTIES

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PUBLISHABLE SUMMARY

In order to test the enhanced Energy Performance Certificate schemes developed in WP3 and provide cross national comparison and recommendations for improvements before the adaption and dialogue activities planned in WP5 field testing is needed. For the field testing purposes it was chosen to use pilot cases where for one building both a standard EPC and enhanced EPC is made.

Based on the literature review, interviews and discussions with stakeholders (Tasks 2.1 and 2.3) and the Strategy Plan developed in Task 2.4, different types of buildings were selected as pilot cases to test the enhanced Energy Performance Certificate assessment and certification procedures.

Pilot cases were identified based on consultations with facility managers/building owners and through well established project partners' local networks.

Pilot cases were selected on the basis of fair and transparent criteria:

- Commitment – pilot cases stakeholders have to commit to complete a feedback questionnaire on the assessment and certification scheme and to publish project data (confidentiality issues are considered)
- Availability – of input data (energy consumption data, technical drawings, information about building system, etc.)
- Coverage – in general the pilot cases cover different building uses and types in each target country (with different climates). For each country, a total of 10 to 15 buildings were to be selected for testing as pilot cases. Of these, 5 to 8 have to be residential buildings and 4 to 7 non-residential buildings (such as offices, education buildings, supermarkets and shopping centers).
- Interest from public institutions/stakeholders and public visibility of the building

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INTRODUCTION

This report contains information on how pilot projects were selected and it also contains information on the chosen pilot projects.

1 PILOT PROJECT SELECTION

During pilot project selection process it was defined that a pilot project will be a building (in some cases a single apartment) because Energy Performance Certificates (EPC) are issued to a building (or a single apartment).

In order to make the process of pilot project selection more understandable to potential pilot project representatives a Participant Information Sheet was developed. This information sheet can be seen in Annex A of this report.

Ekodoma developed criteria for the pilot building selection process. These criteria were discussed between all project partners. The final criteria for pilot building selection can be seen in Annex C of this report.

Based on the criteria for choosing Pilot buildings each involved project partner chose pilot buildings in their respective countries. The way of finding the pilot buildings was chosen by each project partner. Most often the pilot buildings were chosen by advertising this possibility in different Social Media as well as based on consultations with facility managers/building owners and through well established project partners' local networks.

It was important to gather preliminary information from chosen pilot buildings in order to understand if different types of buildings have been chosen. Preliminary data that were asked to all pilot buildings can be seen in Annex B of this report. In some cases at this stage of project the pilot buildings did not have the asked data.

2 SELECTED PILOT PROJECTS

By the end of April 2020 in total 58 pilot buildings have been selected (Latvia -15; Greece -15; Bulgaria -11; Sweden – 9; Spain – 8; Germany – 0; Hungary – 0). Due to Covid-19 pandemic there are some delays in pilot building selection process. Therefore the pilot building selection process is still ongoing in some countries.

No pilot buildings so far have been chosen in Germany and Hungary. It was decided that pilot buildings in Germany will be chosen during Task 4.2 when EPC for a building is issued according to given (existing) practice. In Germany this will be done not by QualDeEPC project partner DENA but by a subcontracted company.

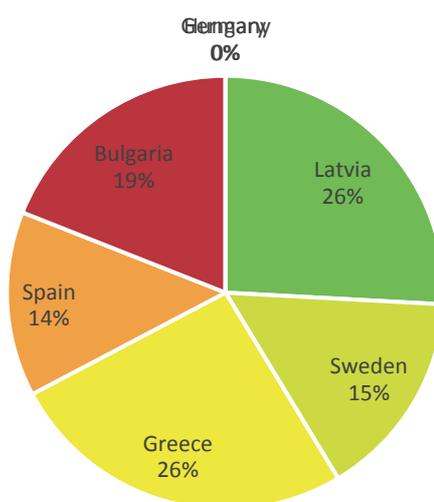


Figure 1. Pilot buildings by country

From the chosen pilot buildings 28 are residential buildings and 30 are non-residential buildings.

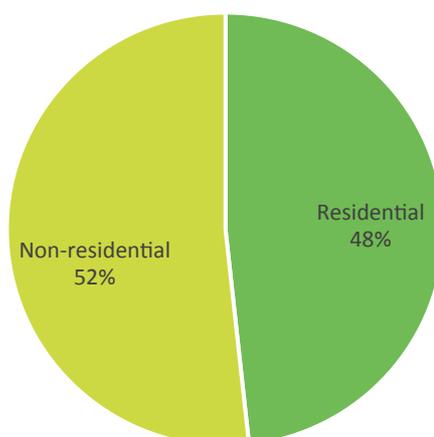


Figure 2. Pilot buildings by building type

From the chosen residential buildings 19 are apartment buildings, 2 are single family buildings and 7 are single apartments.

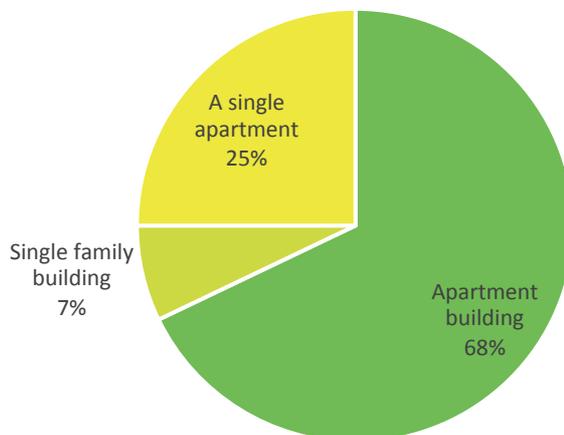


Figure 3. Residential Pilot buildings by type

From the non residential pilot buildings 17 are educational buildings, 8 are office buildings and 5 are other types of non residential buildings.

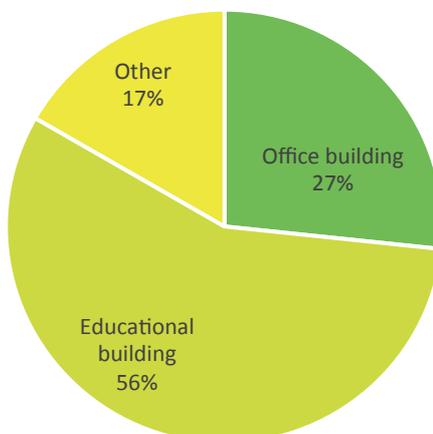


Figure 4. Non residential Pilot buildings by type

The aim of the pilot building selection was to choose such buildings which do not have an existing EPC. Due to Covid-19 pandemic in some countries it was decided that pilot buildings with existing EPCs will be chosen in order no to delay work in *Task 4.2. Assessment of pilot cases in each country based on given practice*. In total 36 pilot buildings do have existing EPCs and only 22 pilot buildings do not have an existing EPC.



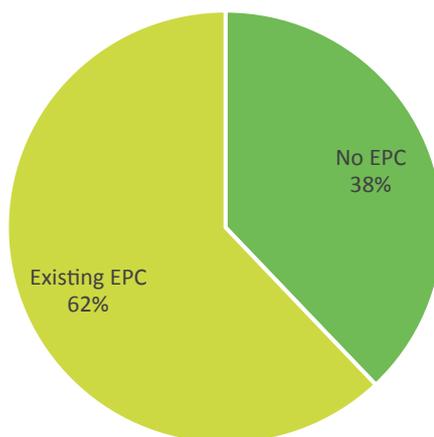


Figure 5. Pilot buildings by the status of EPC

Most of the chosen pilot buildings are built between 1960 and 1980.

Year of construction	Number of buildings
1800-1900	2
1900-1940	4
1940-1960	6
1960-1980	24
1980-2000	14
2000-2020	3

Table 1. Amount of Pilot buildings by year of construction

Preliminary information on each of the chosen pilot buildings can be seen in Annex D of this report.

Preliminary pilot building data (Annex B) for each building is stored on QualDeEPC project’s cloud <https://cloud.wupperinst.org/>.



3 CONCLUSIONS

Till the end of April 2020 there are 58 buildings that have been chosen as pilot buildings. The chosen pilot buildings represent wide variety of building types and building construction years. This means that the chosen pilot buildings can be used for analysis and comparison of existing EPCs (Task 4.2 of the project) and enhanced EPCs (Task 4.3 of the project).

The process of pilot building selection is still ongoing in some QualDeEPC project partner countries.

Due to Covid-19 pandemic there have been some delays in pilot building selection. If the pandemic lasts longer than July or August 2020 then it is most likely that there will be delays in Tasks 4.2 and 4.3 where existing and enhanced EPCs are issued to the pilot buildings.



4 ANNEXES

4.1 Annex A: Participant information sheet

Participant Information Sheet

QualDeEPC H2020 project

Project **QualDeEPC**

“High-quality Energy Performance Assessment and Certification in Europe

Dear Sir or Madam,

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

WHAT IS QUALDEEPC ABOUT?

Considering that 40% of the European Union's energy consumption can be traced back to its buildings, it is essential to improve their energy efficiency in order to achieve the EU's energy efficiency targets. Both the rate of energy renovation and its depth, i.e. the amount of energy savings during a renovation, need to be improved.

An important instrument to enhance the market uptake of energy-efficient new buildings and the energy-efficient renovation of existing buildings are the Energy Performance Certificates (EPC), regulated by the Energy Performance of Buildings Directive (EPBD) of the European Commission.

The energy performance assessment and certification schemes offer an objective estimate of a building's energy efficiency under normal use and cover many of the aspects for the long-term renovation strategies required by the EPBD. However, there are several challenges to overcome in order to increase market confidence and incite investments in energy efficient buildings, such as enhanced reliability, quality of the renovation recommendations, cost-effectiveness, and compliance with relevant EU standards and the EPBD.

The Horizon2020 funded project QualDeEPC aims to enhance (1) the quality and cross-EU convergence of Energy Performance Certificate (EPC) schemes, and (2) the link between EPCs and deep renovation.

QualDeEPC will work on EU-wide convergence of the building assessment and the issuance, design, and use of quality-enhanced EPCs as well as their recommendations for building renovation. The aim is to make these recommendations coherent with deep energy renovation towards a nearly-zero energy building stock by 2050. Under the coordination of the Wuppertal Institute, the project partners will work to create consensus in the participating countries and beyond, and to implement as many improvements as possible during the project period, involving certification bodies, energy agencies, building sector and certification stakeholders, and other relevant organisations.

In order to reach the objectives, the project will organise its activities in four stages:

1. Analysis of existing EPC schemes, good practice, shortcomings, and priorities for improvement
2. Development and testing of concrete proposals and tools for enhanced EPC assessment, certification and verification, as well as Deep Renovation Network Platforms
3. Adaptation to country needs and implementation of consensus elements, as well as developing a roadmap for further dialogue, and
4. Development of a sustainability strategy and conclusive policy recommendations for regional, national, and transnational dialogue, and transfer.



WHAT IS GOING TO HAPPEN DURING THE PILOT BUILDING TEST PHASE?

During the QualDeEPC project enhanced assessment and certification schemes for Energy Performance Certificates will be developed. The aim of the pilot building test phase is to test the practicality of the enhanced EPCs. Therefore, at first a standard EPC will be developed for your building. Then, additionally, an enhanced EPC will be developed for your building.

For doing this, an energy auditor will visit the selected building. The energy auditor might need to discuss certain issues with the facility manager / building owners, needs to collect input data and the necessary information of the preparation of the EPC.

This will not incur any costs for you (an exception might be the issuance of an official EPC, depending on national circumstances).

WHY HAVE YOU BEEN INVITED TO PARTICIPATE?

You have been invited to participate in this project as you are the building owner of a representative building in your country. Your building matches the criteria developed for a pilot building of the QualDeEPC project.

WHAT KIND OF INFORMATION WILL BE ASKED FROM YOU?

In order to develop a standard and an enhanced EPC for your building, it is necessary to receive the respective input data. This will include for example metered energy consumption data, technical drawings, information on building system etc.

Additionally, you need to agree to provide access to the building and assist during the building inspection.

Furthermore, you need to complete a feedback questionnaire on the assessment and certification scheme being used.

WILL YOUR DATA BE KEPT CONFIDENTIAL?

In general, your data will be used to further develop concrete proposals and tools for enhanced EPCs.

All data related to personal issues (names, addresses, etc.) and your answers to the questionnaire will be anonymous (unless you choose to allow us to publish the address of your building). Building data will be anonymised as far as possible, however, the standard EPC and the enhanced EPC of your building will be published in reports and on the QualDeEPC website. Photos of the building will only be published with your permission.

Your data will be processed based on the national legal standards. More information on data processing of the QualDeEPC project can be found at our website www.qualdeepc.eu. Should any inquiries occur, you can reach our data protection officer at mail@qualdeepc.eu.



WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

A standard EPC as well as an enhanced EPC will be developed for your building. By this you will gather detailed information on the energy performance of your building and on the possibilities for a deep renovation.

HOW MUCH TIME DO YOU NEED TO DEVOTE FOR THE FEEDBACK QUESTIONNAIRE?

The feedback questionnaire, which will be given to you after we have made standard EPC and enhanced EPC, is estimated to take about 30-60 minutes. The feedback questionnaire will help us to improve the enhanced EPC even more.

WHAT WILL HAPPEN TO THE RESULTS OF THE PROJECT?

Through intensive dialogue involving key actors at all levels, QualDeEPC will support the change to enhanced quality of EPCs. One main objective of the project is to ensure the long-term usage and integration of the project results in the future EPC handling.

WHO IS ORGANISING AND FUNDING THE PROJECT?

The project is funded by the EU Commission under the Horizon 2020 research programme and coordinated by the German Wuppertal Institut. The QualDeEPC project will be carried out with ten partners from eight different European countries over a period of three years.

CONTACT FOR FURTHER INFORMATION

IF YOU ARE INTERESTED TO TAKE PART IN THIS PROJECT OR HAVE ANY QUESTIONS REGARDING THIS PROJECT PLEASE CONTACT US FOR MORE DETAILS:

##please include your contact information and logo##

Thank you!!

December 2019



4.2 Annex B: Data to be gathered for a building

Work package 4

Pilot building data

No.	Parameter	Value of parameter	Comments
1.	Address of building		<p>If the pilot building has agreed to publish the address of the building then you should give exact address.</p> <p>If the pilot building has not agreed to publish the address you should at least give the information about the city or region where the building is situated</p>
2.	Building type		<p>Here you should show if the building is residential or non residential.</p> <p>For residential buildings you should show if it is a multi apartment building, single family house, row house, single apartment or any other type what is used in your country.</p> <p>For non residential buildings you should show the type of building (office, school, kindergarten, hospital, e.t.c.)</p>
3.	Year of construction		<p>The year of building construction should be shown.</p> <p>If building consists of older and newer parts it should be shown here.</p>
4.	Conditioned area of building, m ²		<p>This should be the area for which specific energy consumption in buildings EPC is calculated.</p> <p>For instance in Latvia we have heated area of building. I assume that in Spain or Greece you will show cooled area.</p> <p>It would be good not only to show area but also add short</p>

4.3 Annex C. Criteria for choosing pilot buildings

The main idea for choosing Pilot cases (buildings) – try to choose non-renovated buildings which typically undergo the process of issuing EPC in your country.

Parameter	Description	Comments
Aim	Choose pilot buildings where a standard EPC and Enhanced EPC will be issued	<p>Standard EPC – EPC prepared ready to issue based on existing scheme (different in each project country). In some cases we will be looking on already issued EPCs.</p> <p>Enhanced EPC – experimental EPC prepared ready to issue based on draft enhanced EPC scheme developed in QualDeEPC project (as similar as possible for all project partner countries).</p> <p>Pilot building – a building or apartment where we go through whole process of issuing Standard EPC and Enhanced EPC.</p> <p>Going through the process of developing an EPC ready to issue for both standard EPCs and Enhanced EPCs will help us to verify our Enhanced EPC scheme and let us see where further improvements are needed.</p>
Amount of residential buildings to be chosen as pilot buildings	<p>Optimal amount – 8</p> <p>Minimal amount – 5</p>	<p>6 of the 8 buildings (75% of buildings) should be a typical building/apartment for which EPC is issued in existing situation.</p> <p>For instance – if in your country EPCs for residential buildings are issued mainly for single family buildings then you should choose as pilot buildings single family buildings. If in your country EPCs are issued only for apartment buildings then as pilot buildings you should choose apartment buildings.</p> <p>2 of the 8 buildings (25% of buildings) should be chosen in such way that the 8 buildings represent different types of buildings. If in your country EPCs are mainly issued for apartment buildings, you should choose at least 2 buildings that are not apartment buildings. This need to be done in order to make it possible to do cross country comparison in our project.</p> <p>Deviations from optimal amount (8) should be allowed only in severe lack of Pilot buildings.</p>
Amount of non-residential buildings to be chosen as pilot buildings	<p>Optimal amount – 7</p> <p>Minimal amount – 4</p>	<p>There are many types of non-residential buildings. You should choose pilot buildings according to types of buildings for which EPCs are typically issued in your country. Only we should try to avoid large buildings (like large shopping centers) because usually issuing EPC for such a building takes a</p>

Parameter	Description	Comments
		<p>lot of time and resources.</p> <p>For instance – in Latvia EPCs mainly are issued to schools and kindergartens. Therefore in Latvia these will be the main types of non-residential buildings, which we will try to choose as a pilot buildings.</p> <p>For cross country comparison you should try to get at least 2 buildings that are not the most typical building type for which EPCs are usually issued.</p> <p>Try avoiding buildings with non-residential and residential part of the building.</p> <p>Deviations from optimal amount (7) should be allowed only in severe lack of Pilot buildings.</p>
<p>Size of pilot buildings – heated area of the buildings</p>	<ul style="list-style-type: none"> • Preferably more than 50 m² for single family buildings • Preferably more than 400 m² for apartments buildings • Preferably more than 250 m² for non-residential buildings 	<p>The heated (conditioned) area of the buildings should be as shown. This will ensure that there are no very small buildings.</p> <p>The minimal area is not a strict requirement but it would be good if we try to follow it. Deviations from this area requirement can be justified if in your country EPCs are often issued to smaller buildings or apartments.</p>
<p>Commitment of the pilot buildings</p>	<p>Pilot building stakeholders (owners/building managers or other involved persons) have to commit (1) to complete a feedback questionnaire on the assessment and certification scheme and (2) to publish project data</p>	<p>Pilot building stakeholders have to sign a commitment to complete a feedback questionnaire of the assessment and certification scheme. This questionnaire will be given to pilot building stakeholders after Standard EPC and Enhanced EPC is issued for a pilot building.</p> <p>We would like to publish the Standard EPC and the Enhanced EPC on our website (confidentiality issues will be considered).</p>
<p>Availability of input data</p>	<p>Pilot buildings should have metered energy consumption data according to national specifics of how often data are gathered.</p>	<p>In some countries there will be monthly data for last 3 years while in other countries we will have only metered data taken once every 3 months or half year. Main thing is that pilot buildings do have these data available. You should try to avoid pilot buildings which do not have metered energy consumption data. It is allowed also to choose pilot buildings with no metered data but please try to avoid these buildings if possible.</p> <p>Even if in your country metered data is not required to issue Standard EPC we think that Enhanced EPC will need (or like to see) these data.</p> <p>Also try avoiding buildings with no building plans or no other technical information.</p>



Parameter	Description	Comments
Building inspection	Pilot building has to agree to perform building inspection	During issuing of EPCs we will visit the buildings. Therefore pilot building has to provide access to the building.
State of the pilot buildings	Pilot buildings should be buildings which can undergo deep renovation	<p>Already renovated buildings can not be chosen as pilot buildings. There has to be possibility for a deep renovation in the buildings.</p> <p>Also historical buildings should be avoided because these buildings quite often can not undergo deep renovation.</p> <p>New buildings (built after ~2013) should be avoided since these buildings follow strict building codes and can not undergo deep renovation.</p>
Interest from public institutions/stakeholders	The pilot building in ideal case should be as close as possible to areas with large amount of people going by	You should try to avoid choosing a pilot building that is situated far from everywhere – do not choose a pilot building in the middle of woods. This will help to multiply the effect of QualDeEPC project. This is not a mandatory requirement (but should be taken into account while choosing Pilot buildings).
Who to inform about possibility to apply as a pilot building	Anyone who you feel is needed	Please inform as many people as possible about the possibility to apply as a pilot building in QualDeEPC project.
Time frame for choosing Pilot buildings	February 2020	<p>The Pilot buildings have to be chosen by end of February 2020 (M6 of the project).</p> <p>By M7 of the project Ekodoma has to deliver D4.1 “Pilot project selection report”.</p>
Time frame for issuing EPCs	<ul style="list-style-type: none"> Standard EPC – till August 2020 Enhanced EPC – till December 2020 	We have to issue all Standard EPCs by M12 of the project and all Enhanced EPCs by M18 of the project.



CONSENT FORM

QualDeEPC – HIGH-QUALITY ENERGY PERFORMANCE ASSESSMENT AND CERTIFICATION IN EUROPE ACCELERATING DEEP ENERGY RENOVATION

Pilot building address:

Pilot building representative (name, surname, position, contact information):

No.	Statement	Please check
1.	I confirm that the information collected during QualDeEPC project about the Pilot building can be published (<i>check only one of 1a and 1b</i>):	
1a.	After it has been anonymised	<input type="checkbox"/>
1b.	Together with the building address	<input type="checkbox"/>
2.	I confirm that I will complete a feedback questionnaire of the Enhanced EPC assessment and certification scheme	<input type="checkbox"/>
3.	I confirm that available energy consumption data, building plans and other information needed about the Pilot building will be shared with QualDeEPC project implementers. I also confirm that the Pilot building will be available for inspection	<input type="checkbox"/>
4.	I agree to the use of anonymised quotes in publications	<input type="checkbox"/>
5.	I agree that my data and views gathered in this study may be stored (after it has been anonymised) and may be used for future research.	<input type="checkbox"/>

Name of Pilot building representative

Date

Signature



		description about what is included in this area.
5.	Total area of building, m ²	Total area of building including all building spaces (conditioned and not conditioned).
6.	Description of already implemented energy efficiency measures	Please show what energy efficiency measures have been implemented (any measure that has been done after building construction). Try to use measurable values as much as possible (for instance, thickness of insulation, U-values, heat conductivities, efficiencies of ventilation recuperation e.t.c.)
7.	Does the building have an existing EPC (energy performance certificate)	If the building already has an EPC you should mention it here. Also in this case it would be good to show when the EPC is issued and also add the EPC of the building (if it is available).
8.	Average heat energy consumption, MWh per year	This data could be unavailable at this stage of the project. If this data is available please show it here.
9.	Average electricity consumption, MWh per year	This data could be unavailable at this stage of the project. If this data is available please show it here.
10.	Short description of building	Short description of building including various information about building which seems relevant to you. I would like to see information about number of floors, used construction materials, what exactly is happening in the building. Two or three sentences should be enough.
11.	Contact details of pilot building representative	Please show contact details about the person who signs the consent form (name, surname, position in company, email, phone, e.t.c.)
12.	Other relevant information which you believe should be mentioned	Add any information, which you believe is relevant



4.4 Annex D: Pilot buildings

No	Country	Address of building	Residential (R) or non-residential (N)	Building type	Year of construction	Conditioned area of building, m2	Does the building have an existing EPC	Average heat energy consumption, MWh per year	Average electricity consumption, MWh per year
1	Latvia	“Briljanti”, Usma, Ventspils novads	R	Apartment building	1981	1253.14	N	152.384	2.195
2	Latvia	“Mežrūpnieki”, Ugāle, Ventspils novads	N	Office building	1956	767.8	N	74.85	92.998
3	Latvia	Rūpnīcas iela 2, Ugāle, Ventspils novads	R	Apartment building	1976	2570.99	N	334.73	375.53
4	Latvia	Zasulauka iela 14/14A, Rīga	R	Apartment building	1956	1013.1	N	200	
5	Latvia	Semināra iela 2A, Valmiera	N	Office building	1976	505.27	N	99.888	91.55
6	Latvia	Ed.Virzas iela 21a, Iecava, Iecavas nov.	N	Office building	1974	928.9	N	93.493	14.839
7	Latvia	Eksporta iela 14, Rīga, LV-1045	R	Apartment building	1958	3197.7	N	540.65	5.11
8	Latvia	Skolas iela 7. Ogre, Ogres novads, LV-5001	R	Apartment building	1965	2194.88	N	438.96	21.95
9	Latvia	Skolas iela 10. Ogre, Ogres novads, LV-5002	R	Apartment building	1973	3185.06	N	567.86	28.39
10	Latvia	Rīgas iela 13, Līvāni, Līvānu novads	N	Educational building	1983	1882.1	N	257.17	45.2
11	Latvia	Pils iela 1, Mežotne, Mežotnes pag., Bauskas nov.	N	Other	1802	2130.2	N	400	60

No	Country	Address of building	Residential (R) or non-residential (N)	Building type	Year of construction	Conditioned area of building, m2	Does the building have an existing EPC	Average heat energy consumption, MWh per year	Average electricity consumption, MWh per year
12	Latvia	Pils iela 1, Mežotne, Mežotnes pag., Bauskas nov.	N	Other	1802	645.5	N	120	20
13	Latvia	Pāvila Roziša iela 4	R	Apartment building	1975	3970.6	N	600	
14	Latvia	Pāvila Roziša iela 7, Liepa, Leipas pagasts, Priekuļu novads	R	Apartment building	1975	2159.9	N	350	
15	Latvia	Raņņa dambis 7 k-3, Rīgā	R	Apartment building	1962	2174	N	338.7	6.233
16	Sweden	Billdal, Sweden	R	Single family building	2001	180	N		18
17	Sweden	Göteborg, Sweden	R	Apartment building	1938	1782	Y	240	12
18	Sweden	Göteborg, Sweden	R	Apartment building	1931	6063	Y	620	36
19	Sweden	Kungsbacka, Sweden	N	Educational building	1979		Y		
20	Sweden	Kungsbacka, Sweden	N	Educational building	1971		Y		
21	Sweden	Lindome, Sweden	N	Office building	2003	1600	N		251
22	Sweden	Malmö, Sweden	N	Office building	1920	9069	Y	1300	500
23	Sweden	Möln dal, Sweden	R	Apartment building	1964	300	Y		22
24	Sweden	Västra Frölunda, Sweden	R	Single family building	1932	160	N	24	

No	Country	Address of building	Residential (R) or non-residential (N)	Building type	Year of construction	Conditioned area of building, m2	Does the building have an existing EPC	Average heat energy consumption, MWh per year	Average electricity consumption, MWh per year
25	Greece	43, Iassonos str., 17341 Ag. Dimitrios - Attiki	R	A single apartment	1976	75	Y		
26	Greece	43, Iassonos str., 17341 Ag. Dimitrios - Attiki	R	A single apartment	1976	75	Y		
27	Greece	93, Alexandreias str., 10441 Athens - Attiki	R	Apartment building	1998	451.14	Y		
28	Greece	88, Str. Makryjianni str., 15344 Gerakas - Attiki	R	A single apartment	2001	101.13	Y		
29	Greece	48, Pindou str., 18344 Moschato-Attiki	R	A single apartment	1997	78.05	Y		
30	Greece	43, V. Hugo str., 10437 Athens, Attiki	R	A single apartment	1961	68	Y		
31	Greece	12, Panos str., 16671 Vouliagmeni-Attiki	R	A single apartment		67.95	Y		
32	Greece	1, Marathonos str., 24400 Gargaliani-Messinia	R	A single apartment	1950	166.37	Y		
33	Greece	16th km Marathonos Ave., 15351 Pallini - Attiki	N	Educational building		1170.5	Y		
34	Greece	16th km Marathonos Ave., 15351 Pallini - Attiki	N	Educational building		685	Y		
35	Greece	Theologou & Ag. Lavras str., 15344 Gerakas - Attiki	N	Educational building	1989	1508.49	Y		
36	Greece	Afanon Iroon & Galinis str., 15351 Pallini - Attiki	N	Educational building	1970	548.02	Y		
37	Greece	Afanon Iroon & Galinis str., 15351	N	Educational	1983	325.06	Y		

No	Country	Address of building	Residential (R) or non-residential (N)	Building type	Year of construction	Conditioned area of building, m2	Does the building have an existing EPC	Average heat energy consumption, MWh per year	Average electricity consumption, MWh per year
		Pallini - Attiki		building					
38	Greece	Iassonos & Odysseos str., 15344 Gerakas - Attiki	N	Educational building	1998	1056	N		
39	Greece	22b, Feidippidou str, 15351 Pallini-Attiki	N	Office building		337.43	N		
40	Spain	CESTONA 86, 28041 Madrid	R	Apartment building	1978	2202	Y		
41	Spain	Garganchón 214, (Barrio de Aeropuerto), 28042 MADRID, COMUNIDAD DE MADRID	R	Apartment building	1960	999	Y		
42	Spain	PABLO NERUDA 142(G), 28028 MADRID	N	Office building	1998	9600	N	1743	1940
43	Spain	ROMEO Y JULIETA 3(B), 28028 MADRID	N	Office building	1998	4000	N	740	662
44	Spain	"FUENTES BLANCAS" SCHOOL, Paraje Fuentes Blancas. LG Fuente Sordo, 70, 09007 Burgos	N	Educational building	1971	2875.72	Y	380.6	52.4
45	Spain	"FUENTES BLANCAS" NURSING HOME, Paraje Fuentes Blancas. LG Fuente Sordo, 70, 09007 Burgos	N	Other	1971	7376.21	Y	1039.15	360.3
46	Spain	"FUENTES BLANCAS" NURSING HOME FOR ASSISTED ADULTS, Paraje Fuentes Blancas. LG Fuente Sordo, 70, 09007 Burgos	N	Other	1971	8958	Y	1736.4	519.2

No	Country	Address of building	Residential (R) or non-residential (N)	Building type	Year of construction	Conditioned area of building, m2	Does the building have an existing EPC	Average heat energy consumption, MWh per year	Average electricity consumption, MWh per year
47	Spain	“SAN AGUSTÍN” NURSING HOME, C/San Agustín, 4 bajo, 09001 Burgos	N	Other	1998	3217.6	Y	594.3	201.3
48	Bulgaria	12 A Georgi Ikonov str., Plovdiv	N	Educational building	1974	1748	Y	171	53.5
49	Bulgaria	Trakia, 5 Tsar Svetoslav Terter Str Plovdiv	N	Educational building	1978	1690.15	Y	312	57.8
50	Bulgaria	4 Dunav Blvd., Plovdiv	R	Apartment building	1988	7888.4	Y	258.039	76.972
51	Bulgaria	Smolyan; 57 Bulgaria Blvd	R	Apartment building	1981	6760	Y	1741	160
52	Bulgaria	Smolyan; 97 Bulgaria Blvd	N	Educational building	1951	7219	Y	485.557	28.31
53	Bulgaria	67 Gorazd Str. Vidin	N	Educational building	1972	1688.89	Y	232.5	67.585
54	Bulgaria	36 Gorazd Str. Vidin	N	Educational building	1973	1413.58	Y	225	55.7
55	Bulgaria	Bononia district ,Vidin	R	Apartment building	1987	4116.4	Y	480	202.465
56	Bulgaria	2 Sveti Kiril Str. Vidin	R	Apartment building	1983	2119.15	Y	110	138.92
57	Bulgaria		N	Educational building		8185.81	Y		
58	Bulgaria	Vidin	N	Educational building	1979	7772.8	Y	381.4	35.6