

EUROPEAN COMMISSION

> Brussels, 30.6.2025 C(2025) 4134 final

ANNEXES 1 to 2

ANNEXES

to the

COMMISSION IMPLEMENTING REGULATION (EU) .../...

implementing Directive (EU) 2024/1275 of the European Parliament and of the Council by establishing common templates for the transfer of information from national energy performance of buildings databases to the EU Building Stock Observatory

ANNEX I

1. GENERAL INFORMATION

Table 1: Date of transfer of information and year for which data are reported

Information to be transferred	ID ¹
Date of transfer of information	М
Year for which data are reported	М
	1

2. ENERGY PERFORMANCE CERTIFICATES

Table 2: Information about energy performance certificates (EPC) schemes

Information to be transferred	ID
Residential buildings	
1. When was the current EPC scheme introduced? (day/month/year)	М
	-
2. Brief description of the current EPC scheme ² . Please provide website links	Μ
to relevant description and legislation.	
3. How is the EPC attributed: per building, per building unit?	М
4. Is the energy use of the building based on calculated or metered energy use?	М
4.1.Based on calculated energy	Yes/No
4.2.Based on metered energy	Yes/No
4.3.Based on a mix of calculated and metered energy	Yes/No
	1
5. Approximate cost range for certificates in the reported period	Miav

¹ M=mandatory, Miap=mandatory if applicable, Miav=mandatory if available, V=voluntary.

² Brief description of the EPC methodology, e.g. how the energy classes are defined, whether different for single family houses and multi-family buildings, whether in total primary energy or other, if a GHG emission scale is associated, etc.

cost range in nationa lower value upper va		cost range in EUR lower value upper			
••					
		·			
				spose the new provisions	Μ
	ticles 19, 20	and 21 of Directiv	ve (EU) 20	024/1275?	
YES/NO					
					-
				ccordance with Articles 19,	Miap
		· /	· 1	se fill in the below table.	
	-		essary if the	e scheme is different across	
	s of residenti				
Type of			idential bi	uilding, e.g. single-family	Miap
building		i-family building)			<u> </u>
Measurement unit: kWh/(m ² .yr)	Lower limit		Upper lin	mit	
energy class $A + 3$					Miap
energy class A0 ⁴					Miap
energy class A					Miap
energy class B					Miap
energy class C					Miap
energy class D					Miap
energy class E					Miap
energy class F					Miap
energy class G					Miap
				n the below information on	Miap
			-	d measurement unit. Please	
				energy classes of the current	
		-		necessary if the scheme is	
		pes of residential			
Type of	·• •	•• •• •	idential bi	uilding, e.g. single-family	Miap
building Measurement unit:		i-family building)	TT	:	-
kWh/(m ² .yr)	Lower limit		Upper lin	mit	
energy class			1		Miap
highest energy class second					-
highest					Miap
					Miap
energy class lowest					Miap
					<u> </u>
		v 1		e 19 of Directive (EU)	
2024/12	75, then pleas	e describe below	how curre	nt energy classes are	Miap

³

To consider only if the Member State plans to introduce an A+ energy class. To consider only if the Member State has in place an A0 energy class and plans to preserve it after 4 revision of the EPC scheme.

adapted for transferring	the information	to the EU Buil	ding Stock	
Observatory on this tem	plate with energ	gy classes from	G to $A+^5$.	
Non-residential buildings				
1. When was the current E	PC scheme intr	oduced? (day/m	nonth/year)	М
2. Brief description of the	current EPC scl	neme ⁶ . Please p	rovide website links	М
to relevant description a	nd legislation.			
2. How is the EDC attribut	h		:49	м
3. How is the EPC attribute	ed: per building	g, per building u	Init?	М
4. Is the energy use of the		on calculated of	r metered energy use?	M No a /Na
4.1.Based on calculated ene				Yes/No Yes/No
4.2.Based on metered energ 4.3.Based on a mix of calcu		ad anarov		Yes/No
4.5.Dased on a mix of carea		cu chergy		105/110
5. Approximate cost range	for certificates	in the reported	period	Miav
cost range in national currency	cost range in EUR			
lower value upper value	lower value upper	value		
<u> </u>				1
6. Has the national EPC sc	hama haan navi	and to transmos	the new married	М
under Articles 19, 20 an				IVI
YES/NO	d 21 of Directiv	(LO) 2024/12	215:	-
6.1.If the national EPC sche	me has been re	vised in accord	ance with Articles 19.	Miap
20 and 21 of Directive (
Please replicate the table		-		
sub-types of non-resider				
Type of (please specify	the type of nor	ı-residential bu	ilding, e.g. office	Miap

⁵ For instance, the previous energy classes A+ and A++ will be merged for the purposes of transferring information to EU Building Stock Observatory into energy class A+. As another example, if the energy class B comprises subclasses B1, B2, B3, then the cumulative information of these three subclasses will be merged into an energy class B. Please describe those correspondences in the respective table cell.

⁶ Brief description of the EPC methodology, e.g. how the energy classes are defined, whether different for single family houses and multi-family buildings, whether in total primary energy or other, if a GHG emission scale is associated etc.

building	building, educational build	ding, hospital)	
Measurement unit:	Lower limit	Upper limit	
kWh/(m ² .yr)			
energy class $A+^7$			Miap
energy class A0 ⁸			Miap
energy class A			Miap
energy class B			Miap
energy class C			Miap
energy class D			Miap
energy class E			Miap
energy class F			Miap
energy class G			Miap
the curre expand t EPC sch	nt EPC classes, correspond he lines below as necessary	sed, then fill in the below information on ing ranges and measurement unit. Please to fill in all energy classes of the current ble below as necessary if the scheme is sidential buildings.	Miap
Type of		non-residential building, e.g. office	Miap
building	building, educational build	0 0 11	map
Measurement unit:	Lower limit	Upper limit	
kWh/(m ² .yr)			
energy class highest			Miap
energy class second highest			Miap
			Miap
energy class lowest			Miap
2024/12 adapted	75, then please describe bel for transferring the informa	asposed Article 19 of Directive (EU) ow how current energy classes are tion to the EU Building Stock nergy classes from G to $A+^9$.	Miap

⁷ To consider it only if the Member State plans to introduce an A+ energy class.

⁸ To consider it only if the Member State has in place an A0 energy class and plans to preserve it after revision of the EPC scheme.

⁹ For instance, the previous energy classes A+ and A++ will be merged for the purposes of transferring information to EU Building Stock Observatory into energy class A+. As another example, if the energy class B comprises subclasses B1, B2, B3, then the cumulative information of these three subclasses will be merged into an energy class B. Please describe those correspondences in the respective table cell.

Table 3: Total building stock¹⁰

Reported year ¹¹													
		Total		Out o	of which		Out of which						
Indicator	Unit	residential and non- residential	Total residential	Single family houses	Multi-family buildings	Total non- residential	Offices	Educational buildings	Hospitals ¹²	Other non- residential			
ID		М	М	Miav	Miav	М	Miav	Miav	Miav	Miav			
Total number of buildings	[no.]												
Total number of building units ¹³	[no.]												
Total useful floor area of buildings	[m2]												

¹⁰ Buildings within the scope of Directive (EU) 2024/1275, as defined by Article 2, point (1).

¹¹ For this table, information from previous year (year-1) is preferable. If this is not possible, then information from year-2 can be transferred instead. Please specify the reported year.

¹² In all tables in this Annex, "Hospitals" category includes health care and social care buildings.

¹³ In case of non-residential buildings, the number of building units is "Miav-mandatory if available".

Reported year ¹⁶										
		Total		Out o	of which			Out o	f which	
Indicator	Unit	residential and non- residential	Total residential	Single family houses	Multi-family buildings	Total non- residential	Offices	Educational buildings	Hospitals ¹⁷	Other non- residential
ID		М	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Share of buildings	[%]									
Share of building units	[%]									
Share of useful floor	[%]									
area of buildings										

Table 4: Share of buildings in the national building stock covered by EPCs [%]^{14,15}

¹⁴ In this table, only the share used in the EPC scheme in the Member State is "mandatory" or "mandatory if available". As an example, if the EPCs are issued for building units (e.g. for residential buildings) then it is mandatory or mandatory if available to transfer the information about the share of building units with an EPC in total national building stock. As indicated in Recital (34) of the Directive (EU) 2024/1275, "with regard to mixed-used buildings that include both residential and non-residential building units, Member States may continue to choose whether to treat them as residential or non-residential buildings."

¹⁵ This share is the ratio of the number of buildings or building units or floor area with an EPCs received over time and, respectively, the total number of buildings or building units or floor area of the total national building stock as reported in Table 3. If information in Table 3 refers to another year than year-1 (previous year), then please explain how this share is calculated (e.g. reported to the stock of year-2, reported to an estimated stock in year-1).

¹⁶ Please specify the reported year.

¹⁷ In all tables in this Annex, "Hospitals" category includes health care and social care buildings.

		-		New buil	dings					-	I	Existing l	ouildings			
	ıtial	Out of	which:	ential		Out of	f which:		ıtial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]
Energy class A+18																
Energy class A019																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 5: Total number of EPCs issued in the reported year

¹⁸ To consider it only if the Member State plans to introduce an A+ energy class. This is valid for all similar tables from this Annex.

¹⁹ To consider it only if the Member State has in place an A0 energy class and plans to preserve it after revision of the EPC scheme. This is valid for all similar tables from this Annex.

			-	New buil	ldings					J	Existing	buildings	Ott of which: Educational buildings Hospitals Other non- <i>Miaw Miaw Miaw</i>					
	tial	Out of	which:	ential		Out of	which:		tial	Out of v	which:	ential		Out of	which:			
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential		
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav		
Unit	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$	$[m^2]$		
Energy class A+																		
Energy class A0																		
Energy class A																		
Energy class B																		
Energy class C																		
Energy class D																		
Energy class E																		
Energy class F																		
Energy class G																		
Total energy classes																		

Table 6: Total floor area of buildings with energy performance certificates issued in the reported year [m²]

				New buil	ldings]	Existing I	ouildings	Ont of which: Educational buildings Hospitals Other non-						
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:					
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential				
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav				
Unit	[kWh/(m ² .yr)]	[kWh/(m².yr)]	[kWh/(m².yr)]	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]														
Energy class A+																				
Energy class A0																				
Energy class A																				
Energy class B																				
Energy class C																				
Energy class D																				
Energy class E																				
Energy class F																				
Energy class G																				
Total energy classes																				

Table 7: Average primary energy use in the EPCs issued in the reported year $[kWh/(m^2.yr)]$

				New buil	ldings]	Existing	buildings	Educational Buildings Hospitals Other non-						
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:					
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential				
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav				
Unit	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]																	
Energy class A+																				
Energy class A0																				
Energy class A																				
Energy class B																				
Energy class C																				
Energy class D																				
Energy class E																				
Energy class F																				
Energy class G																				
Total energy classes																				

Table 8: Average final energy use in the EPCs issued in the reported year $[kWh/(m^2.yr)]$

				New buil	ldings]	Existing I	ouildings	Ont of which: Hospitals Other non-						
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:					
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential				
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav				
Unit	[kWh/(m ² .yr)]	[kWh/(m².yr)]	[kWh/(m².yr)]	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]	[kWh/(m ² .yr)]														
Energy class A+																				
Energy class A0																				
Energy class A																				
Energy class B																				
Energy class C																				
Energy class D																				
Energy class E																				
Energy class F																				
Energy class G																				
Total energy classes																				

Table 9: Average energy needs in the EPCs issued in the reported year $[kWh/(m^2.yr)]$

				New buil	ldings]	Existing	buildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 10: Total (cumulative) primary energy use on the EPCs issued in the reported year [MWh/yr]

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			-	New buil	ldings]	Existing	buildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 11: Total (cumulative) final energy use on the EPCs issued in the reported year [MWh/yr]

			-	New buil	ldings]	Existing	buildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]	[MWh/yr]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 12: Total (cumulative) on-site renewable energy production on the EPCs issued in the reported year [MWh/yr]

				New buil	ldings						I	Existing l	buildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[kgCO2eq/m ² .yr]															
Energy class A+																
Energy class A0																
Energy class A																
Energy class B Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

$Table \ 13: Average \ operational \ GHG \ emission \ on \ the \ EPCs \ issued \ in \ the \ reported \ year \ [kgCO_2eq/(m^2.yr)]$

				New buil	ldings]	Existing	buildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]	[tCO2eq./yr]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 14: Total (cumulative) operational GHG emission on the EPCs issued in the reported year [tCO2eq/yr]

				New b	uildings]	Existing b	ouildings ²	1		
	ential	Out of	which:	n- al		Out of	which:		ential	Out of	which:	n- al		Out of	which:	
Life-cycle stages ²⁰	Total residential	Single family houses	Multi- family buildings	Total non- residential	Offices	Education al buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi- family buildings	Total non- residential	Offices	Education al buildings	Hospitals	Other non- residential
ID	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav	Miav
Unit	[kgCO2eq./m ²]	[kgCO ₂ eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]	[kgCO2eq./m ²]
Product stage (A1-A3)																
Construction Process Stage (A4-A5)																
Use, Maintenance, Replacement Stage (B1- B4)																
Operational energy use Stage (B6)																
End of life Stage (C1- C4)																
Re-use, Recycling, Recovery potential (D1)																
Export utilities (D2)																

Table 15: Average global warming potential (GWP) on the EPCs issued in the reported year [kgCO₂eq/m²]

²⁰ According to the Union framework set out in the Delegated Act to be adopted pursuant to Article 7(3) of Directive (EU) 2024/1275.

²¹ In accordance with Article 19(2) of Directive (EU) 2024/1275, life-cycle GWP are estimated for existing buildings renovated to A+ class. To that end, Member States may use the Union framework set out in the delegated act adopted pursuant to Article 7(3) of Directive (EU) 2024/1275, designed for the purpose of calculating the GWP of new buildings, or adapt the methodology, or use their own calculation method, in accordance with the relevant standards specifically for existing buildings.

				New buil	ldings						I	Existing	buildings			
	Itial	Out of	which:	ential		Out of	f which:		ıtial	Out of v	which:	lential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 16: Total number of buildings with capacity to react to external signals on the EPCs issued in the reported year [no.]

				New buil	dings						l	Existing l	ouildings			
	tial	Out of	which:	ential		Out of	f which:		tial	Out of v	which:	ential		Out of	which:	
Energy classes	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non-residential	Offices	Educational buildings	Hospitals	Other non- residential
ID	М	Miav	Miav	М	Miav	Miav	Miav	Miav	М	Miav	Miav	М	Miav	Miav	Miav	Miav
Unit	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]	[no.]
Energy class A+																
Energy class A0																
Energy class A																
Energy class B																
Energy class C																
Energy class D																
Energy class E																
Energy class F																
Energy class G																
Total energy classes																

Table 17: Total number of buildings with inside heat distribution system capable to work at low and more efficient temperature levels on the EPCs issued in the reported year [no.]

3. **REPORTS ON THE INSPECTIONS OF HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS**

Table 18: Brief information about national schemes for inspections of heating,ventilation and air-conditioning systems

Int	formation to be transferred		ID
1.	Did the Member State opt for alternative measures to the HVAC in	spections in	Μ
	accordance with Article 23(6) of Directive (EU) 2024/1275? [yes/n	o, description]	
	1.1. Alternative measures for residential buildings	Y/N	
	1.2. Alternative measures for non-residential buildings	Y/N	
2.	Are there separate inspection schemes for residential and non-residential buildings?	Y/N	Miap
3.	When were the current HVAC inspection scheme(s) introduced? (day/month/year)	[dd/mm/yyyy]	Miap
4.	Please describe the current inspection scheme(s) and provide links description and legislation available online.	to the relevant	Miap
	4.1. Common inspection scheme for residential and non-residential		Miap
	4.2 Inspection scheme for residential		Micr
	4.2. Inspection scheme for residential		Miap
	4.3. Inspection scheme for non-residential		Miap

					Main		•		
			-		Main so	ource of	energy	Γ	
Indicator	Unit	Total	Gaseous fuels	Liquid fuels	Solid fossil fuels	Heat pumps	Solid biomass	Solar-thermal	Hybrid ²²
ID		Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap
Total inspections	[no.]								
Out of which:									
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioning systems (including combined air- conditioning and ventilation)	[no.]								
Ventilation	[no.]								
Total residential	[no.]								
Out of which:									
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioning systems (including combined air- conditioning and ventilation)	[no.]								
Ventilation	[no.]								
Total non-residential	[no.]								
Out of which:									
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioning systems (including combined air- conditioning and ventilation)	[no.]								
Ventilation	[no.]								

²² A hybrid heating system means a hybrid product that combines two or more different types of generators, at least one of which is based on renewable energy (including heat pumps).

Table 20: Total number of inspection reports over reported year for systems between70kW and 290kW rated output power

					Main so	ource of	energy		
Indicator	Unit	Total	Gaseous fuels	Liquid fuels	Solid fossil fuels	Heat pumps	Solid biomass	Solar-thermal	Hybrid ²³
ID		Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap
Total inspections	[no.]								
Out of which:	[no.]								
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioningsystems(includingcombinedconditioningandventilation)	[no.]								
Ventilation	[no.]								
Total residential	[no.]								
Out of which:									
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioningsystems(includingcombinedconditioningandventilation)	[no.]								
Ventilation	[no.]								
Total non-residential	[no.]								
Out of which:									
Heating systems (including combined heating and ventilation)	[no.]								
Air-conditioning systems (including combined air- conditioning and ventilation) Ventilation	[no.]								
v entitation	[110.]	1							

²³

A hybrid heating system means a hybrid product that combines two or more different types of generators, at least one of which is based on renewable energy (including heat pumps).

Table 21: Total number of inspection reports over reported year for systems above 290kW rated output power

			Main source of energy										
Indicator		Total	Gaseous fuels	Liquid fuels	Solid fossil fuels	Heat pumps	Solid biomass	Solar-thermal	Hybrid ²⁴				
ID		Miap	Miap	Miap	Miap	Miap	Miap	Miap	Miap				
Total inspections	[no.]												
Out of which:	[no.]												
Heating systems (including combined heating and ventilation)	[no.]												
Air-conditioningsystems(includingcombinedconditioningandventilation)	[no.]												
Ventilation	[no.]												
Total residential	[no.]												
Out of which:													
Heating systems (including combined heating and ventilation)	[no.]												
Air-conditioning systems (including combined air- conditioning and ventilation)	[no.]												
Ventilation	[no.]												
Total non-residential	[no.]												
Out of which:													
Heating systems (including combined heating and ventilation)	[no.]												
Air-conditioning systems (including combined air- conditioning and ventilation) Ventilation	[no.]												
v chimation	[110.]	I					I	1					

²⁴ A hybrid heating system means a hybrid product that combines two or more different types of generators, at least one of which is based on renewable energy (including heat pumps and solar-thermal).

4. **BUILDING RENOVATION PASSPORTS**

				Existing buildings								
				Out of which:			Out of v	ut of which:				
Indicator	Unit	Total (for all buildings)	Total residential	Single family houses	Multi-family buildings	Total non- residential	Offices	Educational buildings	Hospitals	Other non- residential		
ID		Μ	Μ	Miav	Miav	М	Miav	Miav	Miav	Miav		
Number of renovation passports issued in the year	[no.]											
		V	V	V	V	V	V	V	V	V		
Average current energy performance of buildings	[kWh/(m ² .yr)]											
Average estimated energy performance class ²⁵ of buildings, after completion of all steps	[kWh/(m ² .yr)]											
Total estimated energy savings in primary energy consumption after the completion of all steps	[MWh/yr]											
Total estimated energy savings in final energy consumption after the completion of all steps	[MWh/yr]											
Average estimated energy savings in primary energy consumption after the completion of all steps	[%] ²⁶											
Average estimated energy savings in final energy consumption after the completion of all steps	[%] ²⁷											
Total estimated operational GHG emission reduction after the completion of all steps	[tCO ₂ eq/yr]											
Average estimated operational GHG emission reduction after the completion of all steps	[kgCO2eq/yr]											
Average estimated savings on energy bills after completion of all steps	[EUR/building or building unit/yr]											
Average estimated investment to complete all steps	[thou. EUR/m ²]											

Table 22: Number of building renovation passports issued in the reported year and relevant information

²⁵ This value should be drawn from the average estimated energy performance from which the energy performance class was estimated for each building.

²⁶ Percentage improvement compared to the energy consumption before undertaking the renovation.

²⁷ Percentage improvement compared to the energy consumption before undertaking the renovation.

5. SMART READINESS INDICATOR

Table 23: Number of buildings scored with smart readiness indicator (SRI) in the reported year and the average scores

	8	New buildings							Existing buildings								
			Out of which:		Out of which:				Out of which:			Out of which:					
Indicator	Unit	Total residential	Single family houses	Multi-family buildings	Total non- residential	Offices	Educational buildings	Hospitals	Other non- residential	Total residential	Single family houses	Multi-family buildings	Total non- residential	Offices	Educational buildings	Hospitals	Other non- residential
ID		V	V	V	V	V	V	V	V	V	V	V	Miap ²⁸	V	V	V	V
Number of buildings with a SRI	[no.]																
Average SRI score	[-]																
Out of which:	-											-			-		
Average score for optimising energy efficiency and overall in-use performance	[-]																
Average score for adapting operation to the needs of the occupant																	
Average score for adapting to signals from the grid	[-]																

25

²⁸ Mandatory only from the date of application of the Delegated Act referred to in the Article 15(2) of Directive (EU) 2024/1275 and for non-residential buildings with an effective rated output for heating systems, air-conditioning systems, systems for combined space heating and ventilation, or systems for combined air-conditioning and ventilation of over 290 kW.

ANNEX II

FORMULAS FOR TOTALS AND AVERAGES

1. Total (cumulative) values for primary and final energy consumption, total operational GHG emissions and total on-site renewable energy production from energy performance certificates and total estimated operational GHG emission reduction and total estimated energy savings from building renovation passports will be calculated as a simple sum of the corresponding values shown on the energy performance certificates issued in the reported year and in accordance with the following formula:

 $Etot = \sum_{i=1}^{N} Ei \qquad (1)$

where:

Etot = total primary or final energy consumption or total operational GHG emission or total on-site renewable energy production or total estimated operational GHG emission reduction or total estimated energy savings (in MWh/yr or tCO₂eq/yr).

Ei = primary or final energy consumption or operational GHG emission or onsite renewable energy production or operational GHG emission reduction of the "i" building or building unit (in MWh/yr or tCO₂eq/yr).

2. Averages of annual primary and final energy use, average energy needs, average operational GHG emissions and average life-cycle GWP from energy performance certificates and average energy performances and average estimated operational GHG emission reduction from building renovation passports comprising this information will be calculated in accordance with the following formula:

Eavg =
$$\sum_{i=1}^{N} (Ei * \frac{Ai}{Atot})$$
 (2)

where:

 $Eavg = average \ primary \ or \ final \ energy \ use \ or \ average \ energy \ performance \ or \ average \ operational \ GHG \ emissions \ or \ average \ life-cycle \ GWP \ or \ average \ estimated \ operational \ GHG \ emission \ reduction, \ in \ kWh/yr \ or \ kWh/(m^2.yr) \ or \ kgCO_2eq/(m^2.yr)$.

 $Ei = primary \text{ or final energy use or energy performance or operational GHG emissions or life-cycle GWP or estimated operational GHG emission reduction, of the "i" building or building unit in kWh/yr or kWh/(m².yr) or kgCO₂eq/yr.$

N = total number of buildings or building units

Ai = useful/reference floor area of the "i" building or building unit, in m^2 .

Atot = sum of useful/reference floor area of buildings or building units, in m^2 .

3. The average scores for smart readiness indicator, total and per key functionality, and the average estimated energy savings, average estimated energy bills savings and average estimated investment from building renovation passports comprising this information will be calculated in accordance with the following formula:

$$Vavg = \frac{\sum_{i=1}^{N} Vi}{N}$$
(3)

where:

Vavg = average smart readiness indicator score or average estimated energy savings or average estimated energy bills savings or average estimated investment.

Vi = the average smart readiness indicator score or estimated energy savings, estimated energy bills savings or estimated investment for "i" building or building unit from smart readiness indicator or building renovation passport in [-] or [%] or [EUR/building or building unit/yr] or [thou. EUR/m²].

N = total number of SRI certificates or number of building renovation passports comprising this information.