



**MINISTÈRES
TRANSITION ÉCOLOGIQUE
COHÉSION DES TERRITOIRES
MER**

*Liberté
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IMPLEMENTATION OF ARTICLES 9B AND 9C OF THE ENERGY EFFICIENCY DIRECTIVE IN FRANCE

1. Regulations for sub-metering and cost individualisation for heating, cooling and domestic hot water

Rules defined in article 9b EED

- *“In multi-apartment and multi-purpose buildings with a central heating or central cooling source or supplied from a district heating or district cooling system, individual meters shall be installed to measure the consumption of heating, cooling or domestic hot water for each building unit, where technically feasible and cost effective in terms of being proportionate in relation to the potential energy savings”.*

Rules defined in French laws

➤ *First measure taken in 1974 (article 4 de la loi du 29 octobre 1974 relative aux économies d'énergie) :*

“Any apartment building provided with common heating must include, when it is technically possible, an installation to determine the quantity of heat and hot water supplied to each room occupied for private use. (...)

A decree taken with State Council recommendation, after consulting the advisory committee for the use of energy, will set the conditions for the application of this article, and in particular the share of the fixed costs referred to in the previous paragraph, the execution times prescribed work, as well as the cases and conditions in which the obligation provided for in the first paragraph may be waived due to technical impossibility or excessive cost.”

➤ *Rule transferred from the construction code to the energy code in 2011 (article L 241-9 French energy code)*

A first implementation text of the EED in France in 2015

- A first implementation text in 2015, inside the law « Transition énergétique et croissance verte »
 - Two application texts (decree and bylaw), with the aim to install sub-metering and cost individualization in all multi-apartements buildings, whether their energy consumption
 - Few exceptions :
 - Hotel rooms and family houses ;
 - Buildings where sub-metering or regulation systems cannot be installed, for technical reasons ;
 - Recent buildings (building permit filed after 1st June 2001, subject to thermal regulation 2000)
 - Tertiary buildings concerned by another text (obligation for energy economy actions till 2030, 2040 and 2050)
- => Measure for multi-apartements strongly rejected by stakeholders : condominiums, social housing owners, ...**

A second implementation in 2019, with more shades (1/3)

- A second law in 2018, in order to take into account the new dispositions of the EED, renewed in december 2018
- Two application texts, with more exceptions :
 - Hotel rooms and family houses ;
 - Buildings where sub-metering or regulation systems cannot be installed, for technical reasons ;
 - Buildings where sub-metering or regulations systems installation may be not cost effective, needing to replace the whole heating system
- The cost efficiency limit was fixed to 80 kWh/m².year (no obligation for buildings with a consumption < 80 kWh/m².year)
- For buildings with a consumption > 80 kWh/m².year, the possibility to prove that individualisation is not cost effective (the calculation formula is defined in french regulations). Small condominiums are particularly concerned.

A second implementation in 2019, with more shades (2/3)

Remote reading :

- Sub-metering systems installed from 25 october 2020 must be remotely readable by remote control
- From 1st January 2027, all sub-metering systems must be remotely readable by remote control

A second implementation in 2019, with more shades (3/3)

- France did not want to be too restrictive with radio frequency equipments, largely used, which could then stay preserved till the 1st January 2027

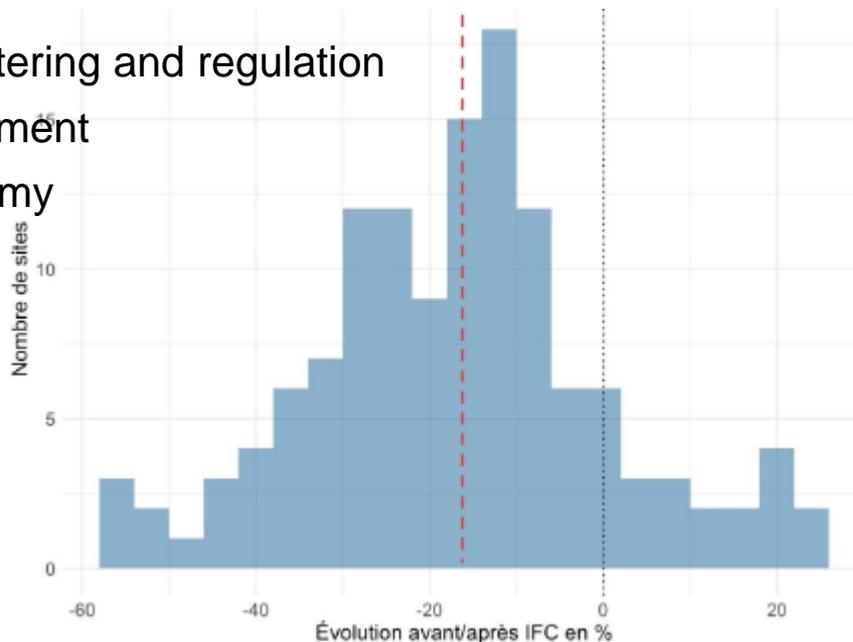
	Social housing	Condominiums
Cost Hire/Maintenance/Reading (€/home/year)	18,14	35,73
Cost radio frequency equipment (€/home/year)	0,69	1,3
Cost connected equipment (€/home/year)		1,22
Cost radio frequency reading / cost HMR (%)	3,80 %	3,64 %
Cost connected equipment / cost HMR (%)		3,41 %

A study by the ADEME (1/3)

- French Agency for energetical transition, ADEME, lead a study in 2018, compiling French data about energy consumption in multi-apartements buildings
- Lots of data from industrial sector, but only few data from social housing owners and condominiums
- 132 residential homes, with 4050 apartments
- Average energetic economy estimated to 15%, taking into account installation of sub-metering and regulation systems (thermostatic valves)
- Important impact of regulation systems

A study by the ADEME (2/3)

- 88% of buildings took advantage of heat metering and regulation
- Only 12% lose money because of the investment
- 50% have reached more than 15% of economy



A study by the ADEME (3/3)

- European benchmark concludes that the average benefit is also about 15% of energy consumption (Germany, Denmark, Belgium)
- Rate of sub-metering systems : Germany, Denmark, and Belgium : more than 90%

2. Information of energy consumption for final consumer or final user

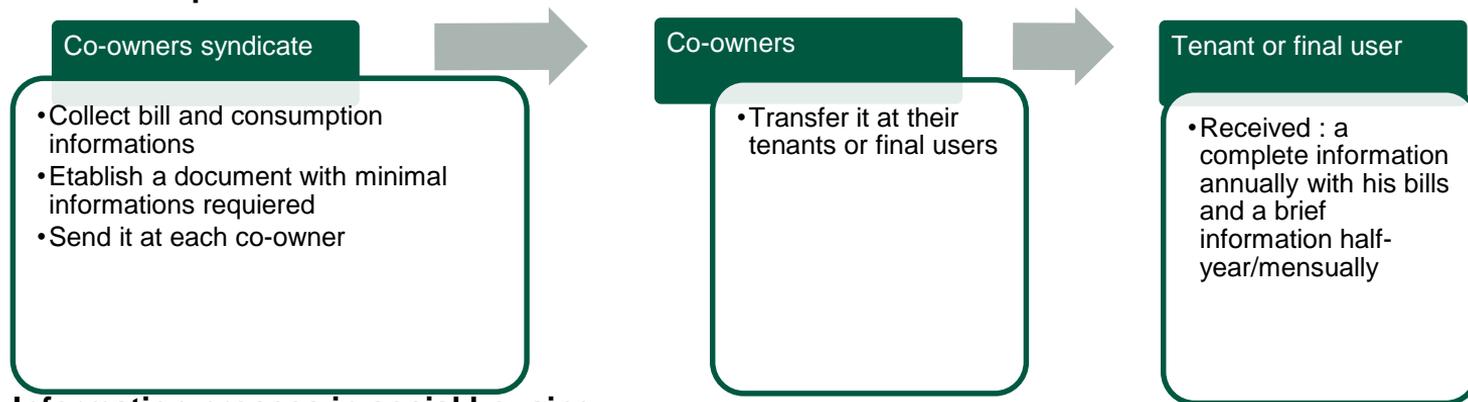
Rules defined in article 9b and 9c EED

- *“Where multi-apartment or multi-purpose buildings are supplied from district heating or district cooling, or where own common heating or cooling systems for such buildings are prevalent, Member States shall ensure they have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and domestic hot water consumption in such buildings to ensure transparency and accuracy of accounting for individual consumption”*
- *“For the purposes of Articles 9a and 9b, meters and heat cost allocators installed after 25 October 2020 shall be remotely readable devices. The conditions of technical feasibility and cost effectiveness set out in Article 9b shall continue to apply”*
- *“Meters and heat cost allocators which are not remotely readable but which have already been installed shall be rendered remotely readable or replaced with remotely readable devices by 1 January 2027, save where the Member State in question shows that this is not cost-efficient”*

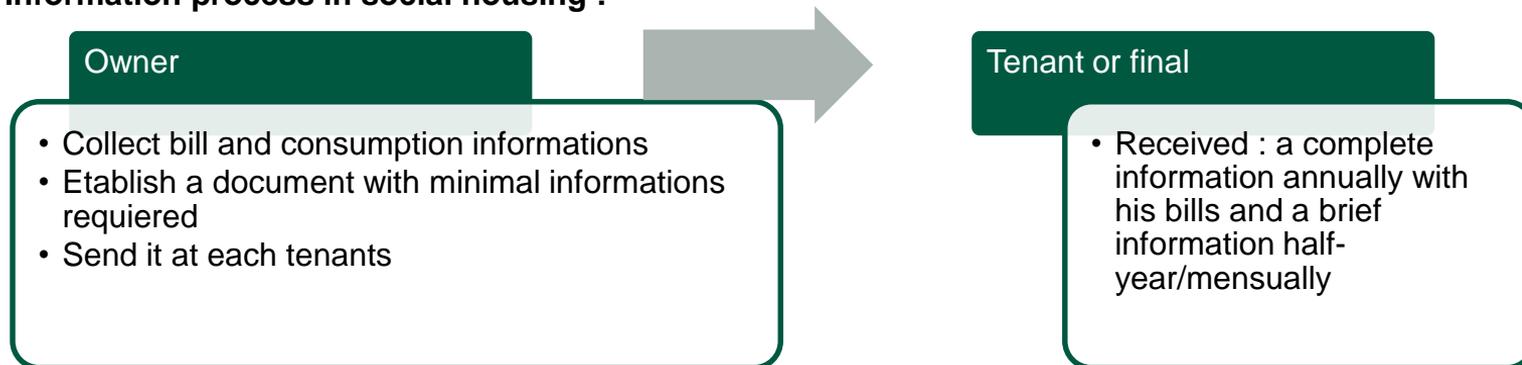
Information of energy consumption for final consumer or final user (1/2)

- France has implemented the rest of the article 9b and the article 9c of the EED with an ordonnance taken on the 15th July 2020 and a decree on the 20th July 2020
- This text introduces 2 specific documents in order to give clear, regular and free information for final users :
 - Annually, final users receive a complete information based on billing (minimal information contained in the annex VIIa-3)
 - Twice a year between October 2020 and December 2021, then mensually from 2022, final users have a brief information with their consumption measured by remotely readable devices

Information process in condominium:



Information process in social housing :



Thank you for your attention