

# Heat cost allocation rules, Slovenia



CONCERTED ACTION  
ENERGY EFFICIENCY  
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## Description of the programme

Slovenia has 25,000 multi-apartment buildings with 330,000 flats. Most of them were built more than 40 years ago, so there are still old central heating systems with vertical pipes, often without regular and proper maintenance. There is a big percentage of flats used by owners and therefore a variety of interests which cause many problems in managing multi-apartment buildings.

Heat cost allocation is a complex problem, where different domains, laws and situations overlap. It involves various stakeholders (owners, managers of multi-apartment buildings, submetering companies).

Heat cost allocation rules can provide predictable and fair heat cost allocation. Slovenian Heat cost allocation rules issued in 2016 insure more fair, clear and predictable heat cost allocation in comparison to former rules 2010 or 2015 and still stimulate heat saving.

## Critical success factors

Heat cost share limitation.

We set the minimum and also the maximum of heat consumption share.

$$d_i = \max \left\{ \begin{array}{l} \min \left\{ \begin{array}{l} \frac{d_{k,i}}{\sum d_k} \times \frac{\sum A_d}{\sum A} \\ 3 \times \frac{A_i}{\sum A} \end{array} \right. \\ 0,4 \times \frac{A_i}{\sum A} \end{array} \right.$$

## Innovation

Consumption shares that amount to less than 40% of average, are risen to 40% (approximately 60% of annual heat is consumed just to maintain minimum indoor temperature by taking into account average Slovenian climate conditions), and those above 300%, are cut down to 300% (radiators connected to hydraulic balanced central system can emit only a limited amount of heat).



## Key achievements

There were many problems with understanding rules which came into force in 2010 and 2015. Owners also claimed that the rules were unfair, unpredictable and did not encourage heat saving in some cases.

The rules, issued in 2016, are more fair, predictable and still encourage heat saving.

## Changes you would make in the future

Enhance obligations of service companies about informing and explanation of heat cost allocation.

## Lesson learned

People do not like frequent changes.

There are no rules which would satisfy all owners.

Rules have to be simple and understandable.

Complexity of the heat cost allocation.

Actual heat consumption of flat is not just proportionate to heat meter readings. Heat doesn't go just through heat-meters, but also exchanges through walls, floor and ceiling.

## Replicating your approach

Expert analyses made on real data are essential to set the right limits of heat cost in multi-apartment buildings and multi-purpose buildings.



## Final comments

When we allocate heat costs in multi-apartment building just proportionate to heat meter readings, then in certain situations heat cost of some flats can be extremely low or high and thus not reflect actual heat consumption.

Beside a more fair allocation it turned out that limitation of extreme heat costs also reduced the number of complaints.

By reducing market energy prices of heat from district heating networks in comparison to fixed costs and consequently by reducing the variable part of the heat costs, it is becoming increasingly difficult to convince the owners about the justification of mandatory installation of heat meters and heat cost allocation.

## Further information

<http://www.energetika-portal.si/podrocja/energetika/delitev-stroskov-za-energijo/>

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