

You can wait with the reconstruction of your house till you will be overwhelmed by the heating costs. Then the reconstruction will be much expensive, because a lot of materials will be produced energy intensive. For this, you should react rapidly and if possible you should begin as soon as possible. Please keep the following order:

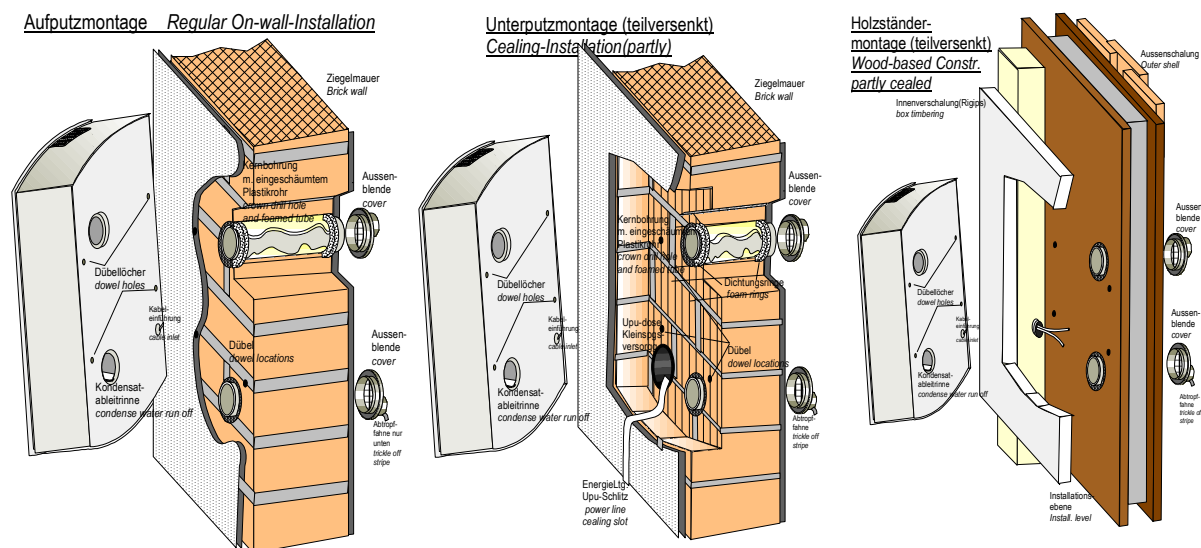


- 1) Exterior insulation with new storefront.
- 2) Leak windows and doors with low transmission losses
- 3) **Controlled flat airing (CFA) with high efficient heat recovery (HR) secures no mould and is cheapest in local execution of GF-Sol-AIR.** You will consider the effect of insulation and leakiness with CFA and 90 % HR, otherwise you will air with expensive energy for the world outside of your flat. (Please consider the graphic overleaf)

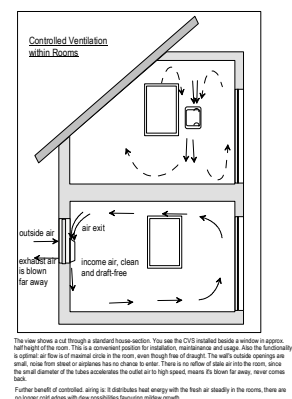
After, you will look for a new suitable heating system, which uses renewable energies, because now the energy demand will be reduced for 1/5 or more in comparison to the past. You will have fun to install the removable energy and at the same time you will get a significant increase in value of your house.

### Why to use local ventilation with a lot of individual units instead one central unit (CA)?

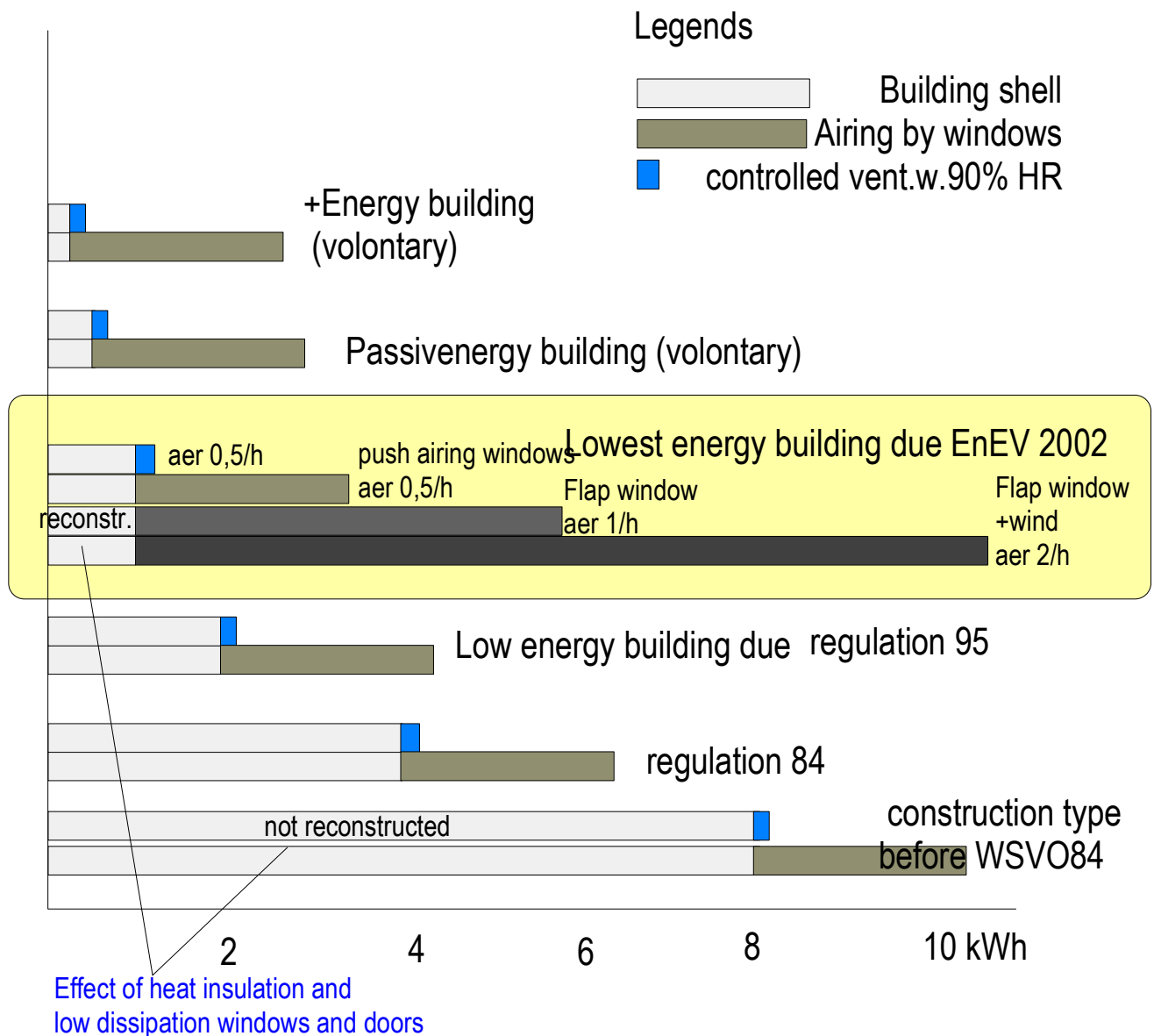
The most important reason is the gross cost difference: While you require for a flat of 120 m<sup>2</sup> 6 – 8 individual units, which costs between 2400 and 3000 € at GF-Sol-AIR plus approx. 400 € for the installation, central units have costs between 8000 and 2000 €. The expensive part is not the machine but the conductive material and the working costs for their installation. Often it is not possible to install later the CA in the fixed construction, in the case of local apparatus it is possible and this also very fast.



Long lines in which you can find dust, microbes and mould can not be found in local CFA's. There are no telephony effects, which present a loss of intimacy of the individual rooms. Above all, the air flow can be individually changed in each room, at the same time the other rooms will not be influenced. The air circulation in the room is ideal.



# Energy-dissipation different housetypes/ airing loss by windows ref. controlled ventilation w. HR (at same air exchange ratio aer)



Diagr. calculated for 120 m<sup>2</sup> flat area in a winter day w. 0°outer- and 22°inner temperature

The diagramm clearly shows how absurd it is, to have a very energy-efficient building envelope , but still out of airing with the window, or ventilation fans, if not highly-efficient heat recovery is utilized!