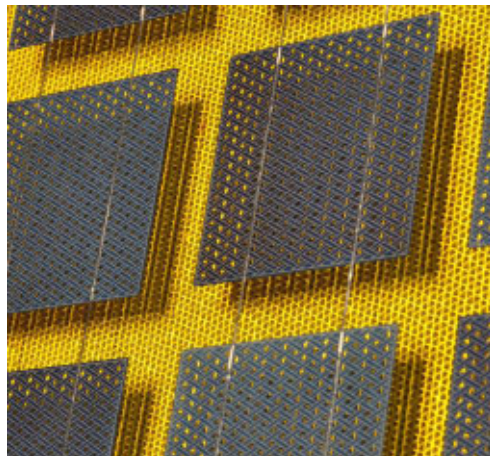
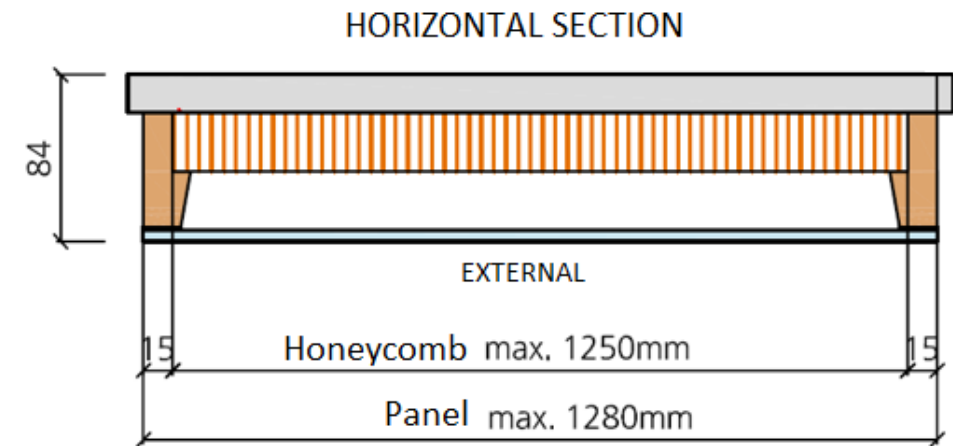


# MULTI-ACTIVE-FAÇADE – ONE STEP TO A ZERO EMISSION BUILDING

- Housing complex of the City of Vienna renovated to passivhouse standard with MAFa
- Construction and operation of buildings → 40 % of the CO<sub>2</sub> emission
- Prefabricated glass façade, transparent PV, honeycomb structure → living comfort, energy efficiency
- Building phase reduced → on-site installation is rapid in comparison to ETICS



Construction	
Carrier board (MDF)	19 mm
Honeycomb	30 mm
Air gap	29 mm
Float glass (TSG)	6 mm
Total thickness	84 mm
Panel weight	35 kg/m <sup>2</sup>



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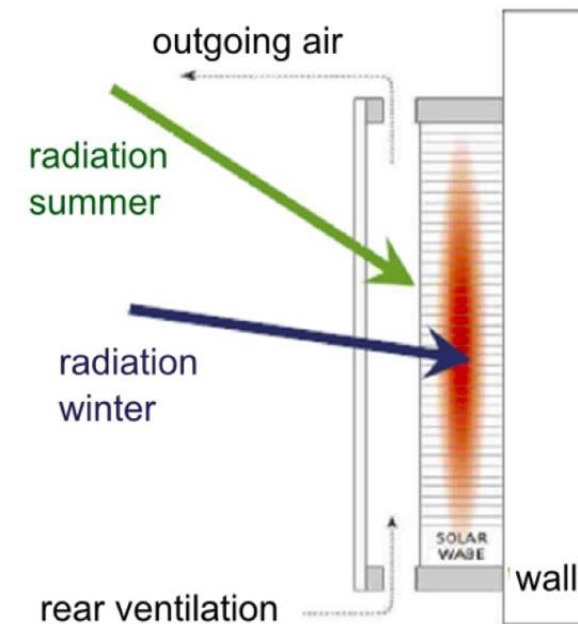
# MULTI-ACTIVE-FAÇADE – ONE STEP TO A ZERO EMISSION BUILDING

- MAFa three functions:
  - Reducing the heating energy demand
  - Enhancing the efficiency of the building through an integrated ventilation system
  - Producing renewable energy through active solar gains with integrated transparent PV cells
- Methodology: LCA based on the „baubook Eco2Soft Öko-bilanz für Gebäude“

## RESULTS

Minus 320.000 kWh per year for the whole building

Minus 77.000 kg CO<sub>2</sub> per year (- 64 %) for the whole building



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