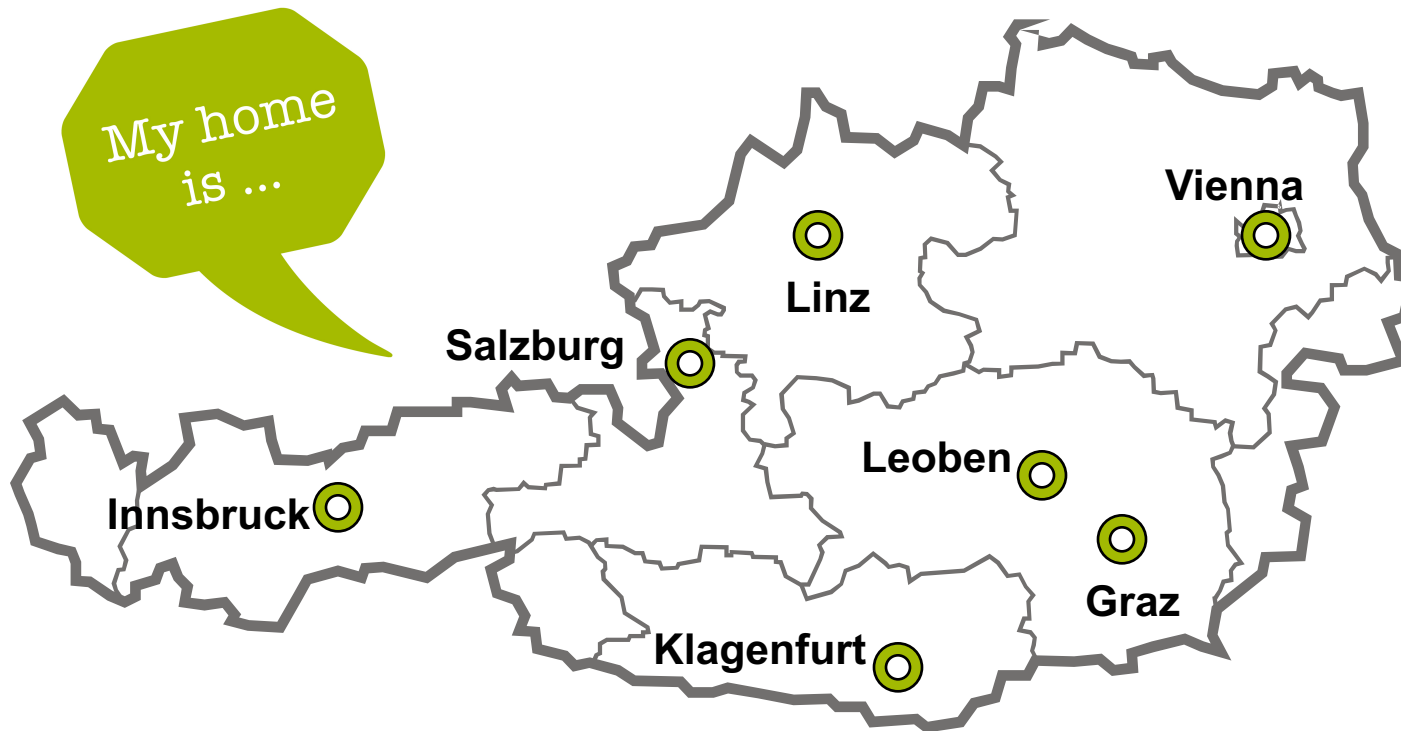


oead



OeAD-Housing Office



Facts & Figures



 100% subsidiary of the **oead**[®]
(Austrian service centre for European and international mobility
and cooperation programmes in the fields of education, science
and research)

 **Non-Profit-Company**

 no governmental or public funding



Facts & Figures



Accommodation

- 12.000 international students per year
- 8.000 students in Vienna



Green Building

- 8 dorms built as passive houses
- using solar energy through photo voltaic systems



OeAD-Guesthouse

Molkereistrasse (passive house)



2005
278 students



OeAD-Guesthouse

Molkereistrasse (passive house)



OeAD-Guesthouse

Sechshauserstrasse (passive house)



2009
146 students



OeAD-Guesthouse

Sechshauserstrasse (passive house)



OeAD-Guesthouse

Sechshauserstrasse (passive house)



OeAD-Guesthouse Kandlgasse (passive house)



2009
104 students



OeAD-Guesthouse Kandlgasse (passive house)



OeAD-Guesthouse Gasgasse (passive house)



2011
194 students

OeAD-Guesthouse Gasgasse (passive house)



OeAD-Guesthouse Gasgasse (passive house)



OeAD-Guesthouse GreenHouse (passive house)



2014
107 students



OeAD-Guesthouse GreenHouse (passive house)



OeAD-Guesthouse

PopUp dorms (passive house)



2014
42 students

FIABCI Prix d'Excellence Austria 2018



Winner!
PopUp dorms

FIABCI INTERNATIONAL REAL ESTATE AWARDS
#FIABCI AUSTRIA 2018
Metland
ARKCITY
narmas land
Building for a better future

OeAD-Guesthouse Mineroroom (passive house)



2016
201 students



What else do we offer...



SUMMER UNIVERSITIES



oead

wien.
unser zuhause

Summer University AEMS since 2014



ALTERNATIVE ECONOMIC AND MONETARY SYSTEMS

THE ECONOMY OF THE FUTURE

Summer University Vienna

www.summer-university.net



AEMS

Is a world dominated by profit and competition a good place to be? This summer program focuses on ways to restructure economic systems to embody sustainable use of resources and a more collaborative society overall. At AEMS you learn about:

→ **The variety** of alternative economic and monetary systems that are already in practice worldwide.

→ **Ecologic sustainability**, population growth and the long-term management of natural resources and energy.

→ **Business ethics**, consumerism, solidarity and the common good: The need for a new philosophy.

ORGANIZERS

The **BOKU University of Natural Resources and Life Sciences** contributes to a sustainable use of natural resources by connecting natural sciences, engineering and economic sciences.

Economy for the Common Good offers an answer to current ecological, social and economic problems. As of 2017, more than 2.300 companies have committed themselves to the initiative.

Each year, the **OeAD-Housing Office** accommodates over 2,500 students in energy-efficient dormitories. It also won the 2013 Austrian Climate Protection Award.

APPLY NOW!

www.summer-university.net



Participants Summer University



OeAD-WohnraumverwaltungsGmbH
Ebendorferstraße 7
1010 Wien
www.housing.oead.at





Austria's first „Passive House Plus“ student dormitory in Vienna

Site plan



aspern Vienna's urban lakeside – Building Site D5B

Student dormitory for 314 students **passive-house-for-active-students**

Building Owner

WBV-GPA Wohnbauvereinigung für Privatangestellte

Operator

OeAD-WV Österreichischer Austauschdienst Wohnraumverwaltungs GmbH

WBV-GPA Wohnbauvereinigung für Privatangestellte

OeJAB Österreichische Jungarbeiterbewegung

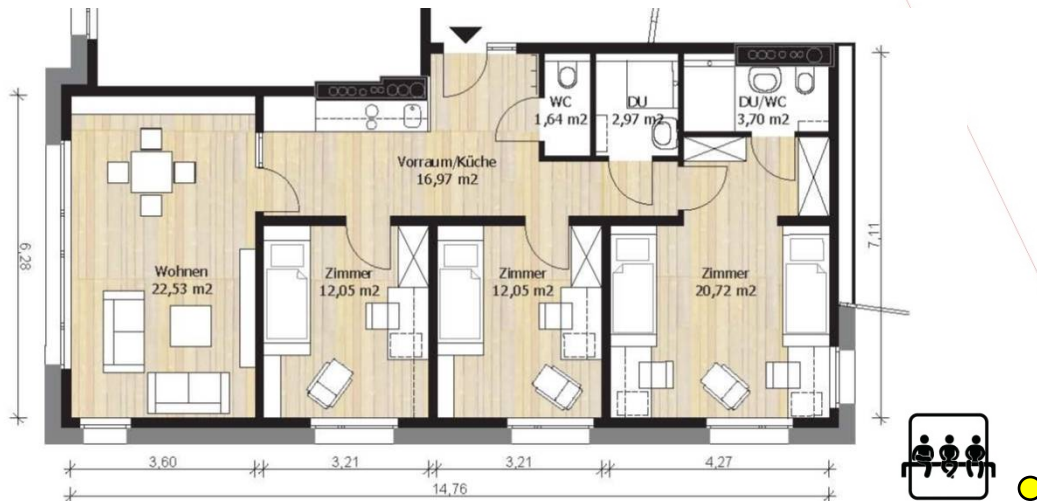
SBE Graz – 12/09/2019



Types of rooms and upper level



Single room



Flat-sharing community



Data - building equipment

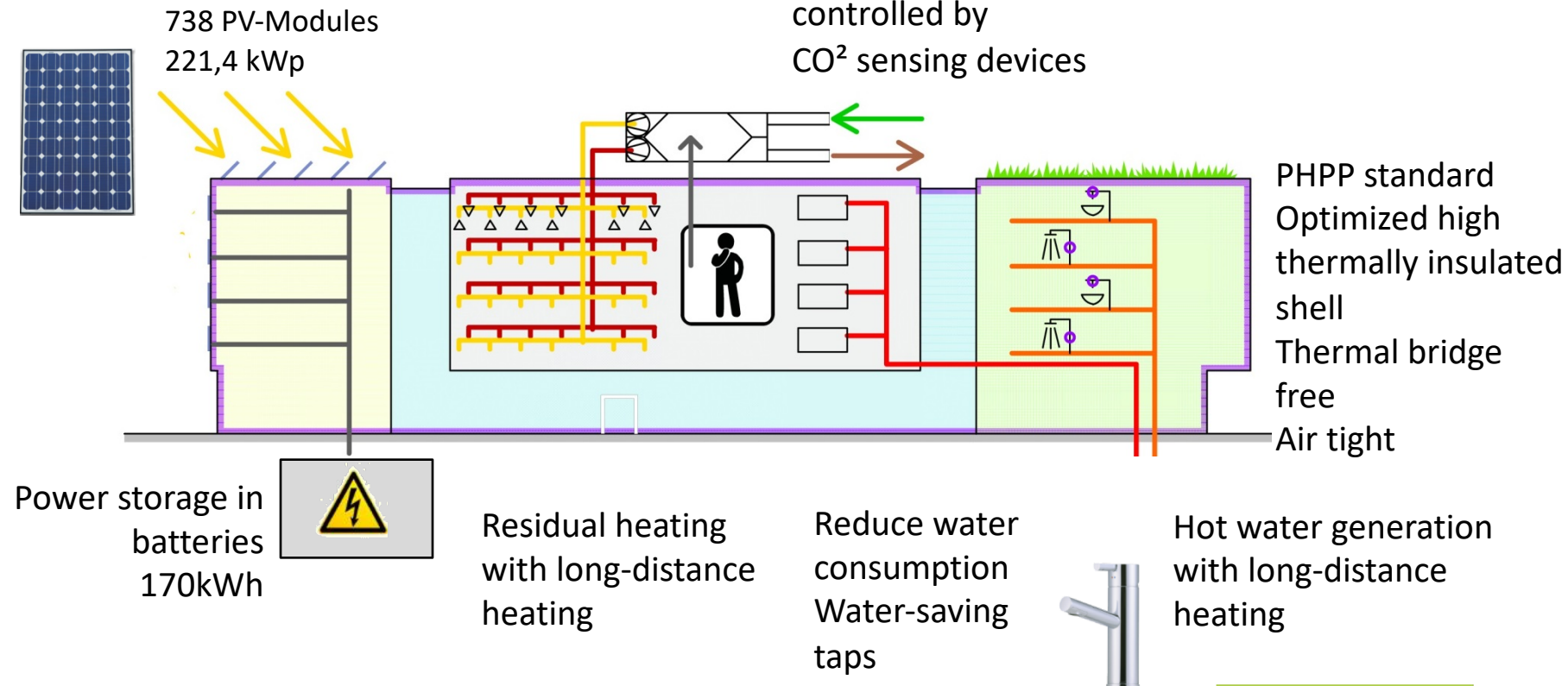
Building site 3.820m²
Covered area 2.000m²
Gross floor area 9.860m²

U-values

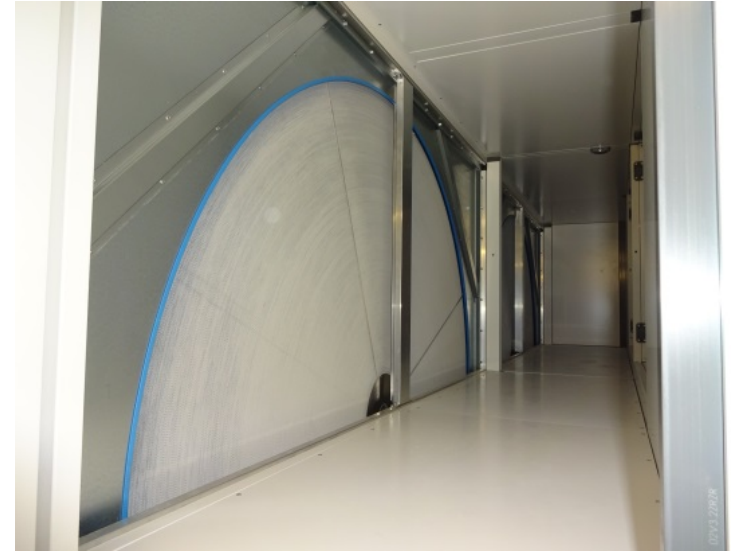
Outside wall 0,10 W/m²K
Roof 0,07 W/m²K
Windows U_w 0,80 W/m²K

Heat demand 12,86 kWh/m²a (PHPP)
Heating load 9 W/m² (PHPP)
n₅₀ / Air tightness 0,24 /h

Ventilation system
with circulating heat exchanger
controlled by
CO² sensing devices



Central ventilation device



Ventilation device TROX X-CUBE

- 2 pc. circulating heat exchanger parallel connected, operation based on CO₂ levels
- air flow per device 6.000m³/h
- Heat recovery (EN308) 91%
- Moisture recovery 73%
- special bag and mini-pleat filters F9

Design: BPS Engineering - Wien



Photovoltaic array and storage batteries



738 monocrystalline panels á 300Wp
Total nominal output: 2 21,4 kWp
10 Inverters
Total production annually: 215.865 kWh
Total CO2 savings annually: 25.904 kg



Installation: 10hoch4, WienEnergie
Research project: ASCR, Siemens



Battery system AC
Lithium-iron phosphate cells
Maximum constant output : 150kW
Storage capacity: 170kWh

Reducing energy demand

Monitoring



- LED lights with presence detectors
- Daylight in the circulation areas
- Optimisation of all components that consume power



- Extensive monitoring in 15 reference rooms
Measure of energy consumption,
temperature, humidity, water consumption
and window ventilation

Reducing energy demand

Monitoring



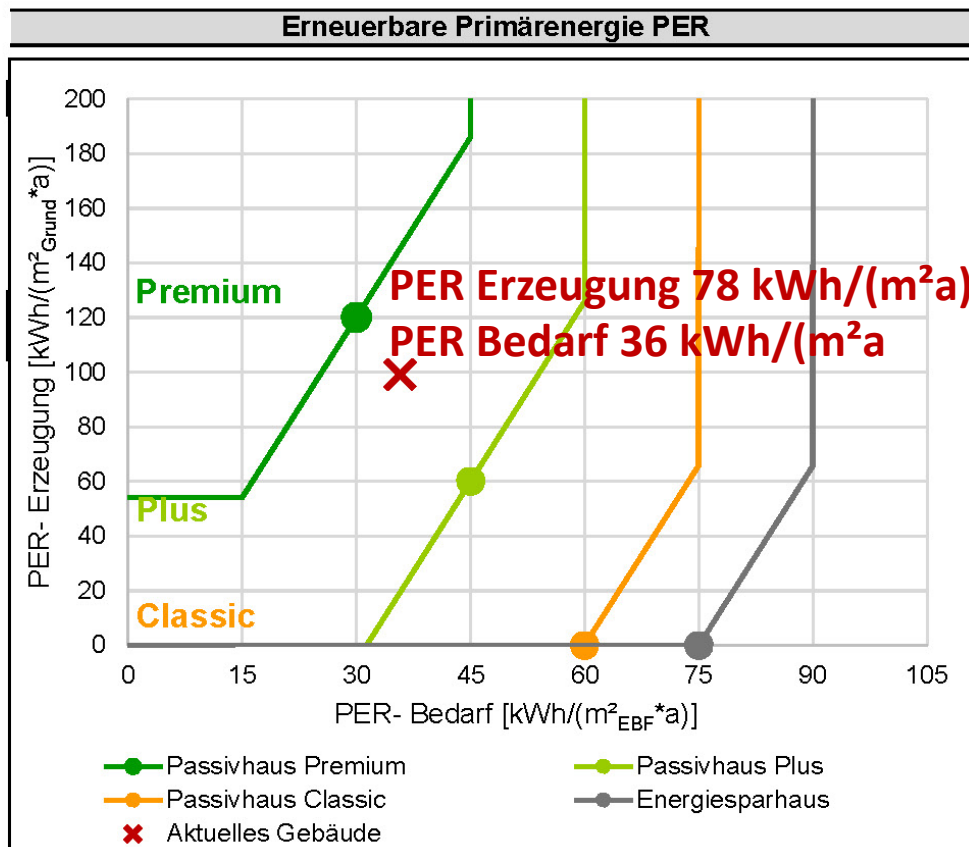
- Energy efficient appliances
- Avoidance of standby functions



- Heater radiators with low feed temperature to optimize volumetric flow
- Water-saving fixtures with expanded cold water area to reduce hot water demand

Buildings physics, Passive House - Plus energy : Schöberl&Pöll GmbH - Wien

PER (primary energy, renewable) diagram



©Schöberl&Pöll GmbH - Wien



Zertifizierung Passivhaus Plus



Österreichische Gesellschaft für Nachhaltiges Bauen

905 von 1.000 ÖGNB-Punkten | ÖGNB GOLD



1.000 von 1.000 klimaaktiv-Punkten

klimaaktiv GOLD



Opening March 2015

mine^{room}_{leoben}



Student dormitory Leoben - Styria / Austria



Building owner:

Gem. Wohn- u. Siedlungsgenossenschaft Ennstal

Operator:

OeAD-WohnraumverwaltungsGmbH

Architecture:

aap.architekten ZT-GmbH

Statics:

KPZT Kurt Pock Tragwerksplanung

Building physics:

Schöberl & Pöll GmbH

Building services:

BPS Engineering

Fire protection:

IMS-Brandschutz Ingenieurbüro GmbH

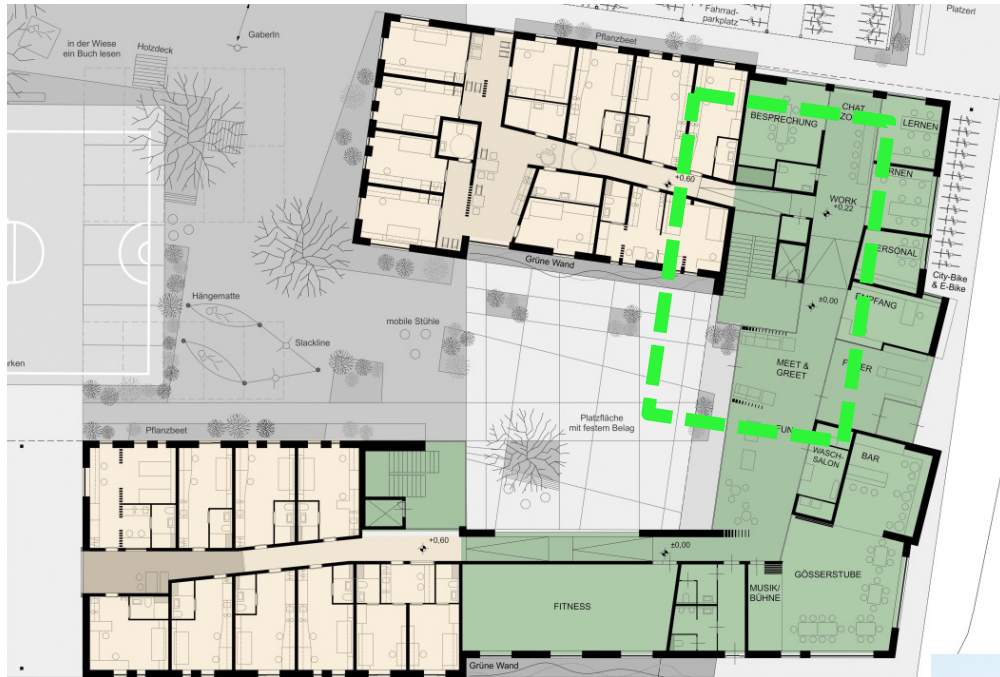
General contractor:

Swietelsky Baugesellschaft m. b. H.

Weissenseer Holz-System-Bau GmbH



Ground floor-4th floor timber construction



Data

Building site	3.214m ²
Covered area	1.450 m ²
Gross floor area	5.975m ²

Ground floor + basement
concrete construction
1st-5th floor timber construction

Staircases concrete construction

Ground floor-3rd floor timber construction

U-values

Outside wall	0,13 W/m ² K
Roof	0,06 W/m ² K
Basement ceiling	0,11 W/m ² K
Windows U _w	0,80 W/m ² K





Exterior walls of precast timber
frame 6/28
insulated with mineral wool
and clad with gypsum fibre-
boards on both sides



CLT wall Elements together with
CLT ceiling disks provide
horizontal reinforcement

Upcycling
CLT furniture



Building equipment

Heat demand 17 kWh/m²a (PHPP)

Heating load / 9 W/m² (PHPP)

n₅₀ / Air tightness ≤ 0,27/h

Photovoltaic array

388 PV-Module

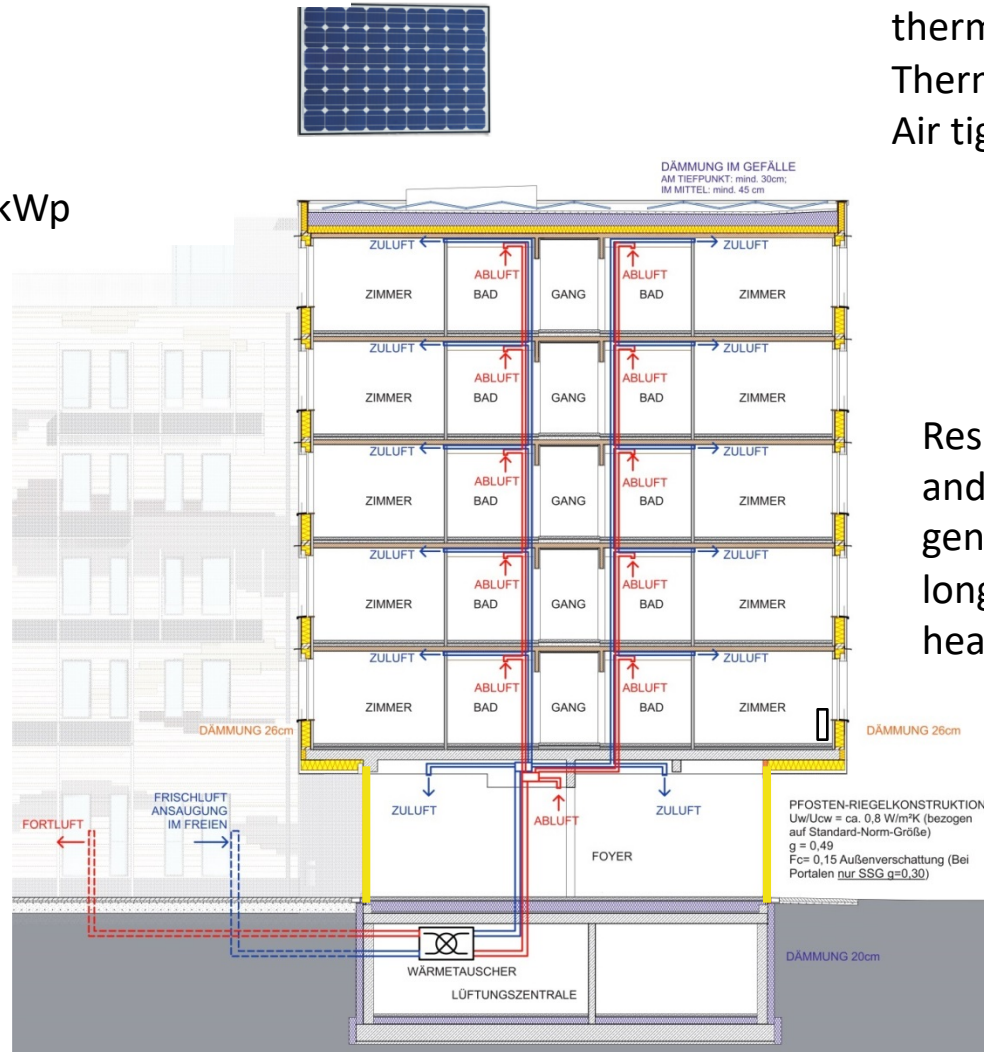
Total nominal output 116kWp

Reduce water consumption

Water-saving taps



Ventilation system with circulating heat exchanger



PHPP standard
Optimized high
thermally insulated shell
Thermal bridge free
Air tight

Residual heating
and hot water
generation with
long-distance
heating

Photovoltaic array



Monocrystalline panels á 300Wp
Total nominal output: 116 kWp
3 Inverters
Total production annually: 105.000 kWh
Total CO2 savings annually: 12.600 kg

Installation: 10hoch4

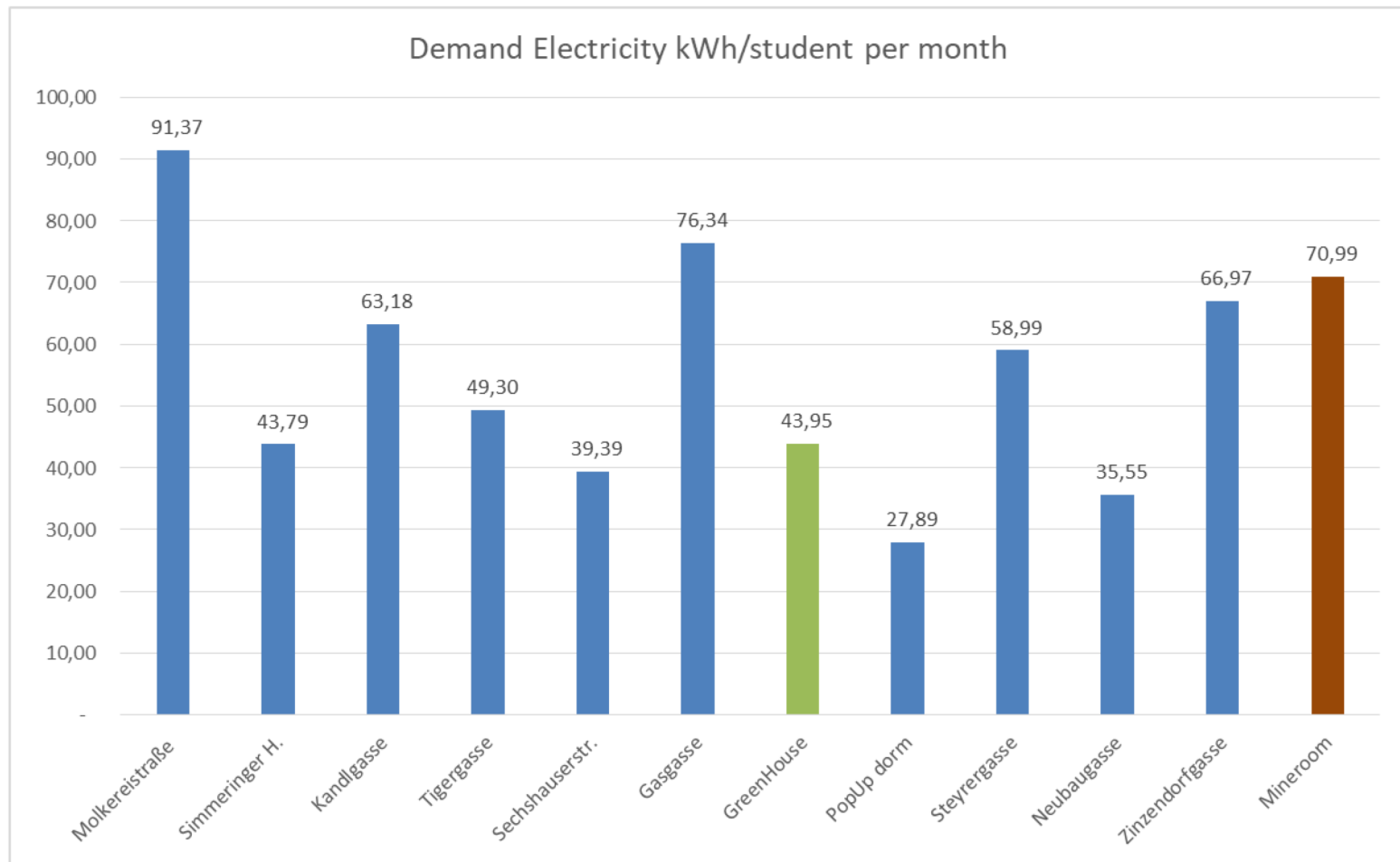


Passivhaus Plus Zertifizierung



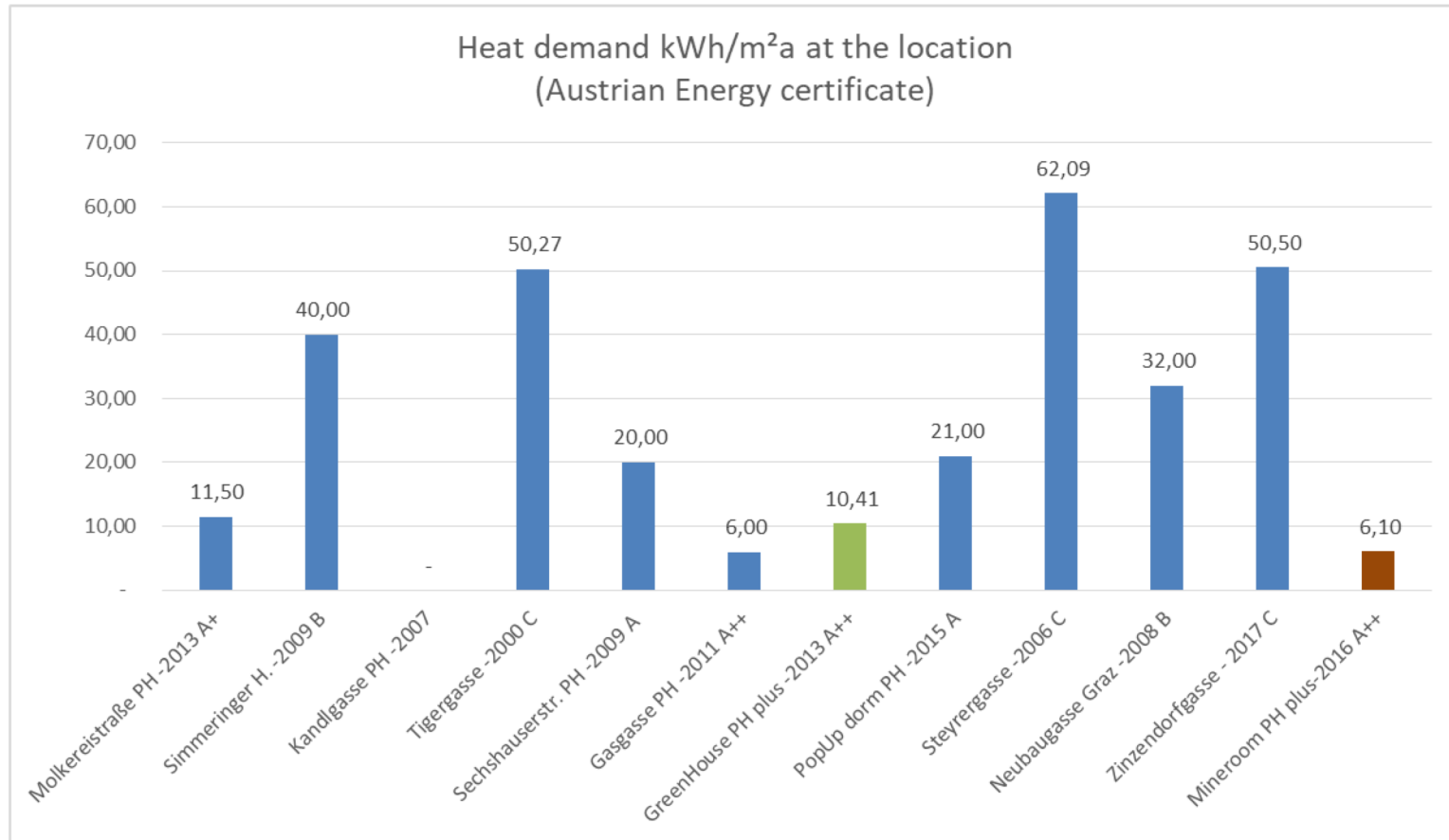
Zertifizierung klimaaktiv GOLD

Demand Electricity



- Behavior of residents
- Common rooms offered
- System of heating and hot water regeneration
- Optimisation components that consume power
- Avoidance of standby functions

Heat demand



- Compact building shape
 - optimized building envelope
 - highly efficient ventilation system with heat recovery
- > **Passive house (PHI Darmstadt)**

Conclusio

- Integral planning
- Passive house construction
- Optimizing of electric consumption
- Use of renewable energy
- Ecologic building materials
- Thinking Cradle to cradle
- Sharing the knowledge

For our future!
Thank you for your attention!

