

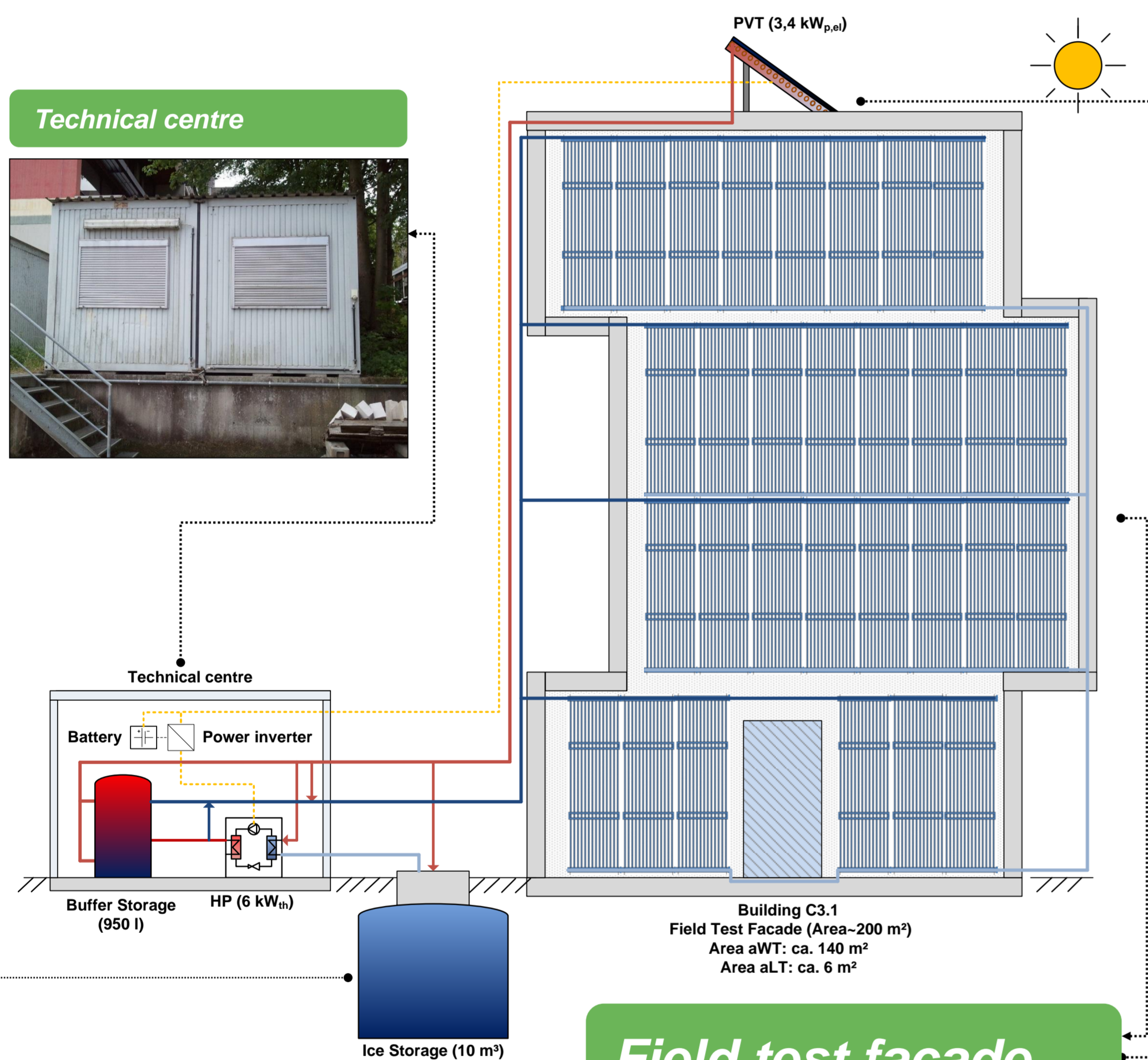
# LEXU II – Low Exergy Utilisation

## Field test of an outlying wall tempering for building refurbishment, together with heat pump, PCM-storage and PVT collectors

### Short description of the project LEXU II:

The main part of the research project „LEXU II“ (FKZ 0327370Y) is the field test of the outlying wall tempering (aWT). The aWT is a panel heating, that is attached between the existing wall and the new thermal insulation. Depending on the position of the panel heating in the wall cross-section, very low supply temperatures (LowEx) can be used in the aWT. Moreover the existing wall will be thermally activated.

### Layout of the field test system



### PCM-storage („Ice storage“)



Illustration 2: Ice storage in unfilled excavation

### Field test facade



Illustration 2: Picture of the field test facade after the renovation

### PVT (photovoltaic thermal hybrid) collector

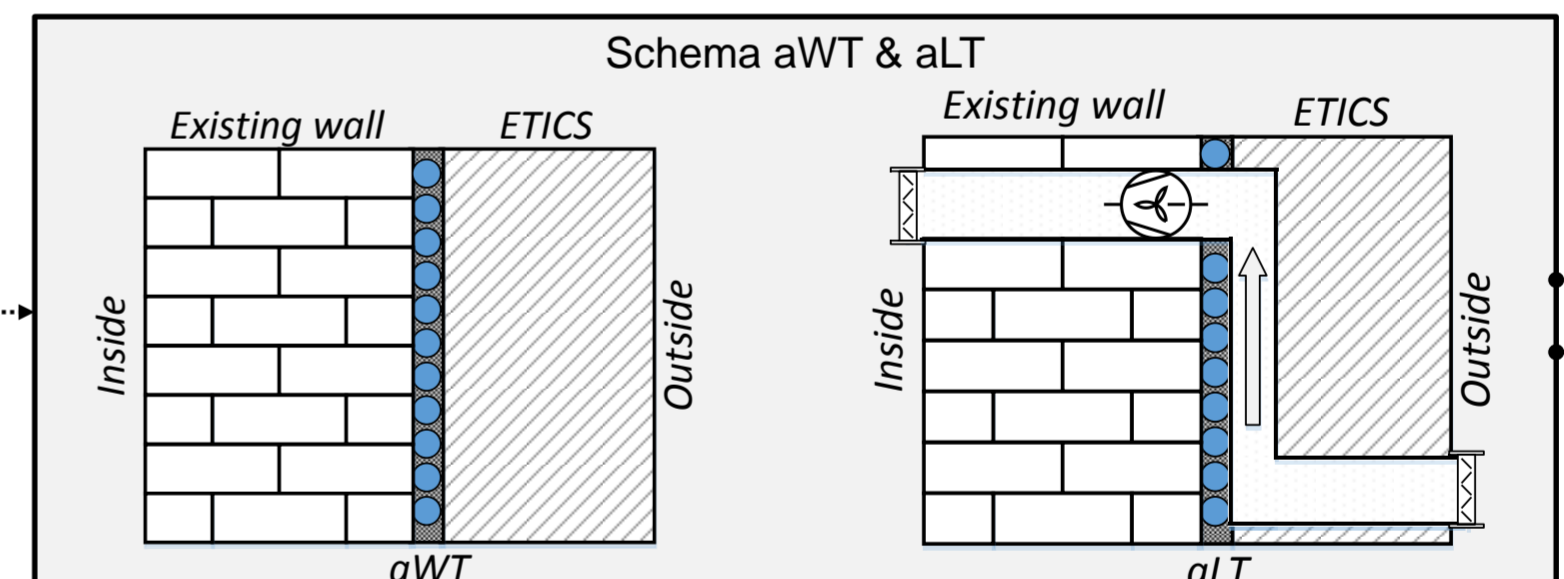


Illustration 3: Image of the PVT collectors on top of the field test building (left) and a PVT collector on the laboratory roof for test measurements and characterization.

### The outlying air tempering (aLT)



Illustration 4: Realization of the aLT at the field test façade. Picture without the cover of the aLT, so the air duct and the air inlet can be identified.



### The outlying wall tempering (aWT)



Illustration 5: Mounting of the capillary tubes (left) and plastering with adhesive mortar (right) at the field test facade.

Project coordination:



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