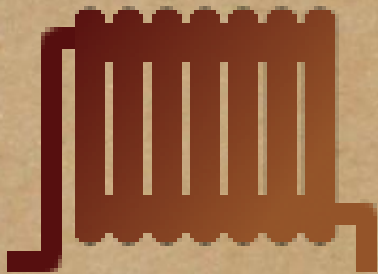


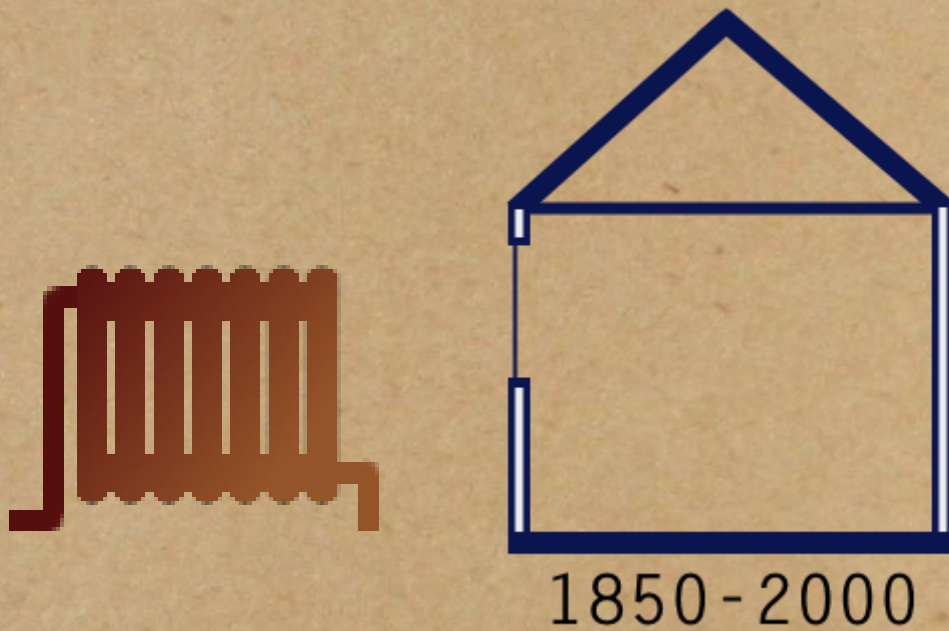
Dorte Skaarup Larsen
Ph.D. studerende, DTU

How to provide:



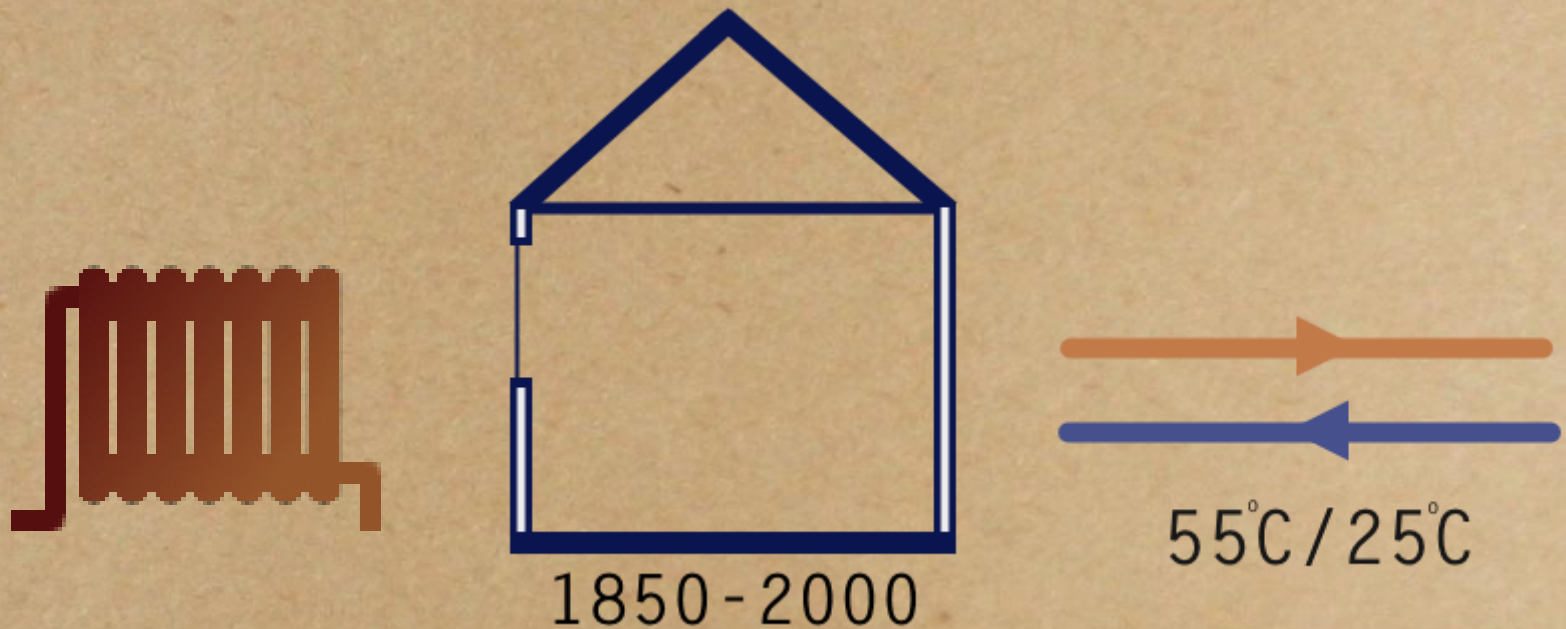
Space heating

How to provide:



Space heating for existing buildings

How to provide:

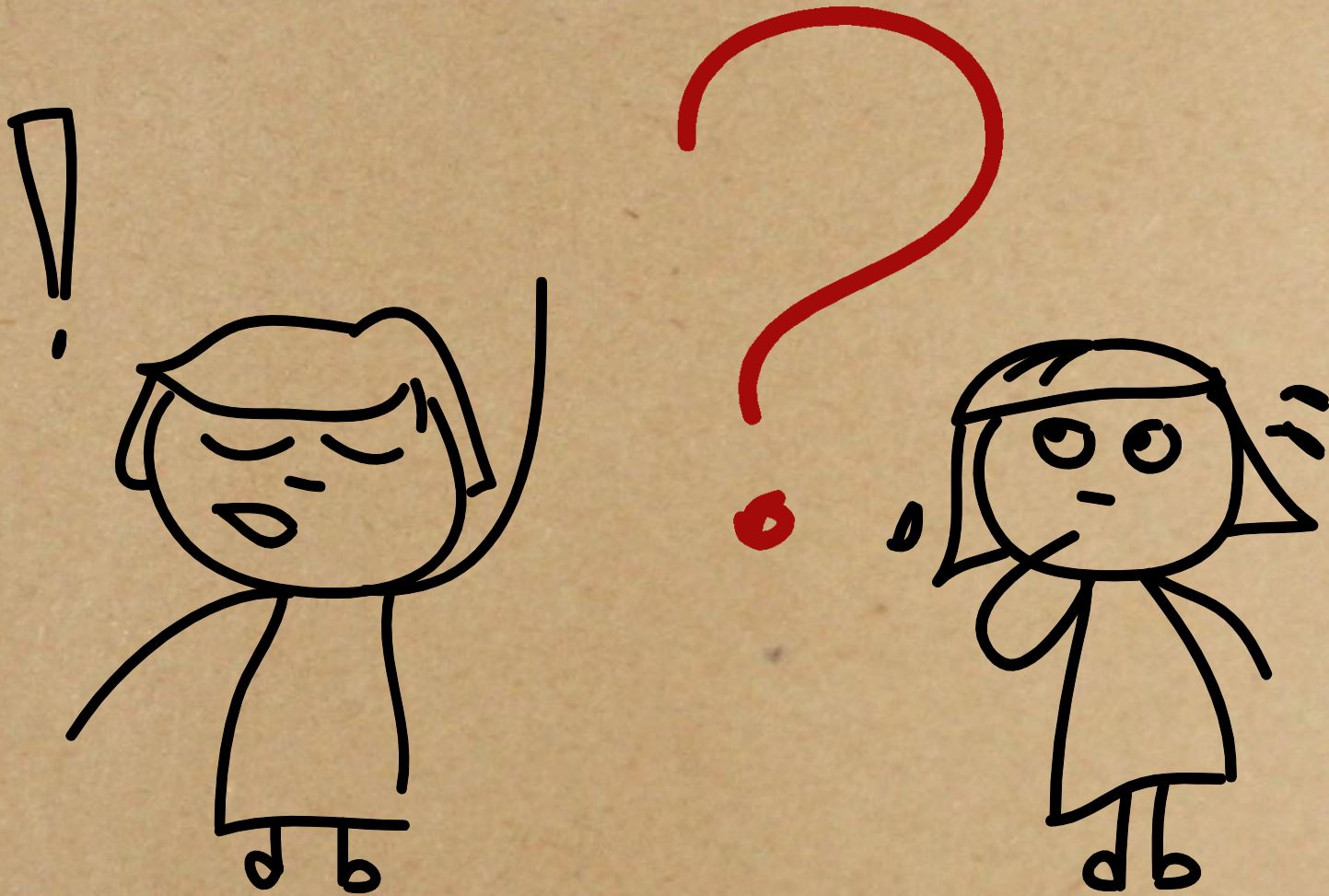


Space heating for existing buildings with LTDH.

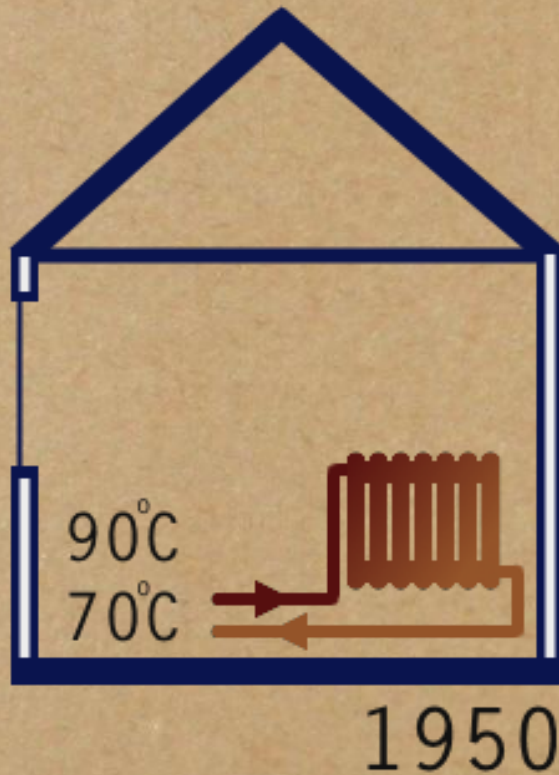
THAT IS JUST A STUDY OF RADIATOR SIZES!



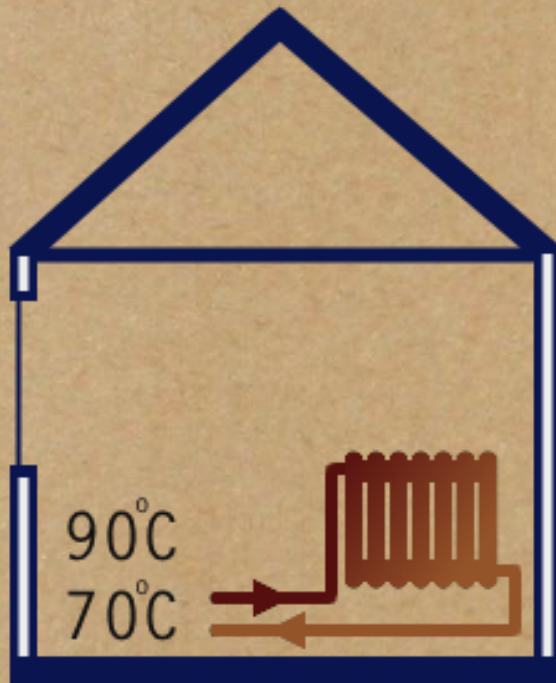
THAT IS JUST A STUDY OF RADIATOR SIZES!



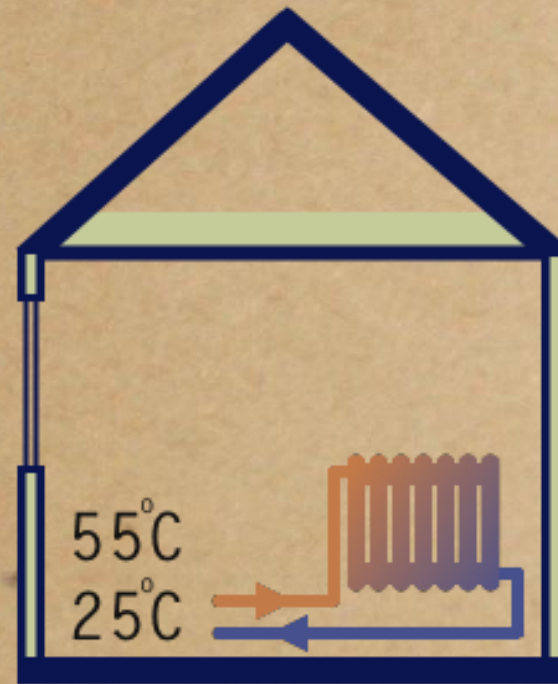
ISN' T THAT JUST A STUDY OF RADIATOR SIZES?



ISN' T THAT JUST A STUDY OF RADIATOR SIZES?

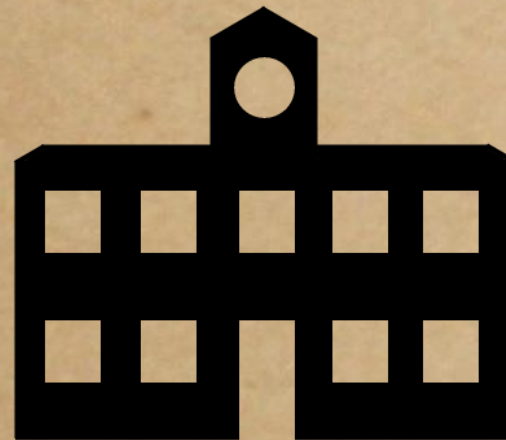
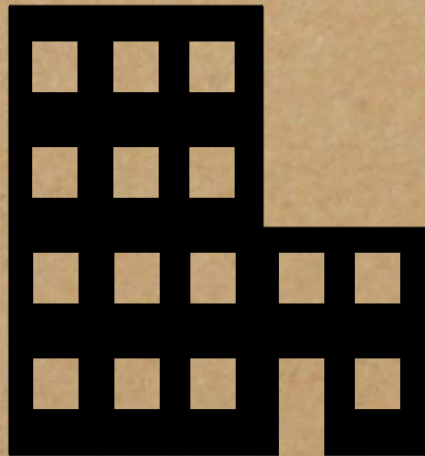
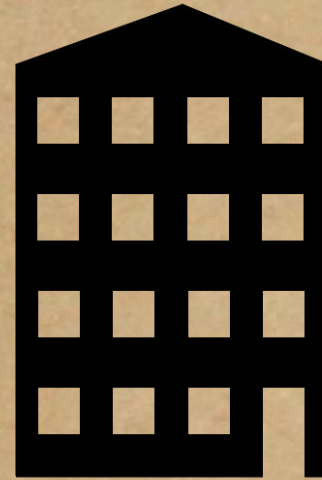


1950



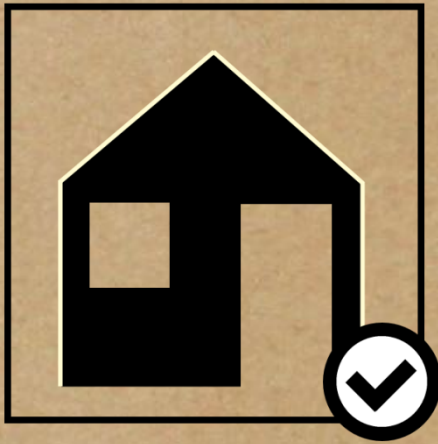
2014

Research plan



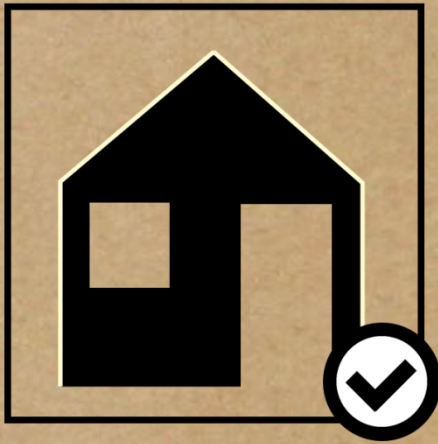
Research plan

Renovations?



Research plan

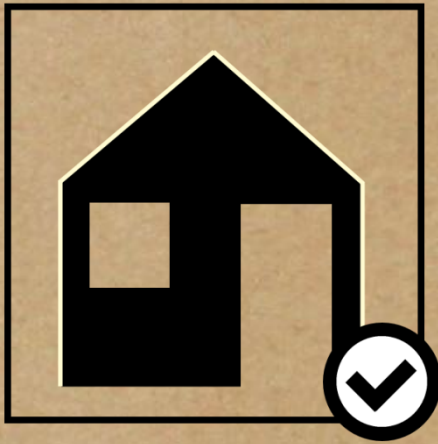
Renovations?



Cost and financing?

Research plan

Renovations?



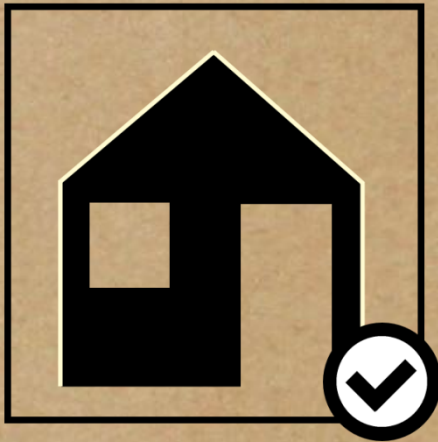
Cost and financing?

HOUSE 1	
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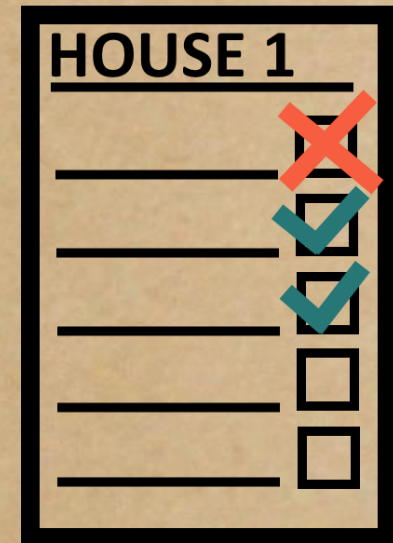
Easy assessment

Research plan

Renovations?



Cost and financing?



Maintenance and operation

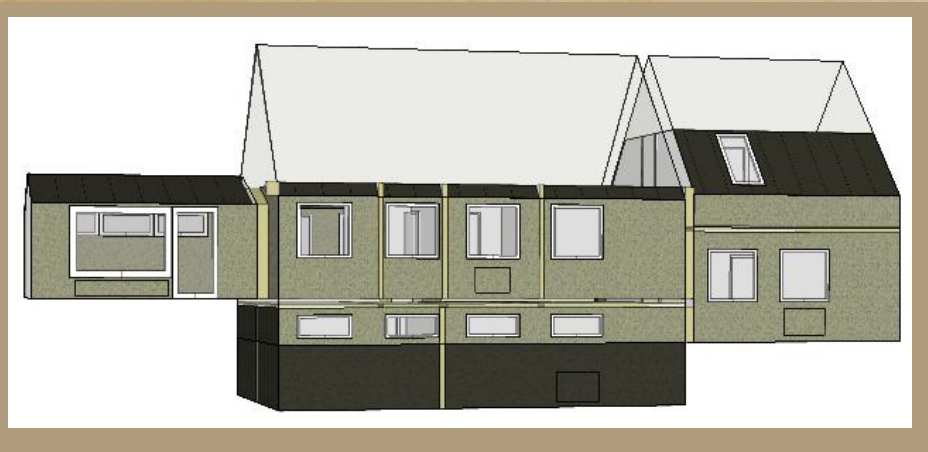
Easy assessment

Test project



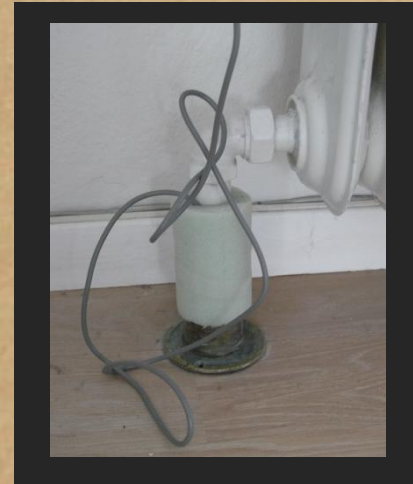
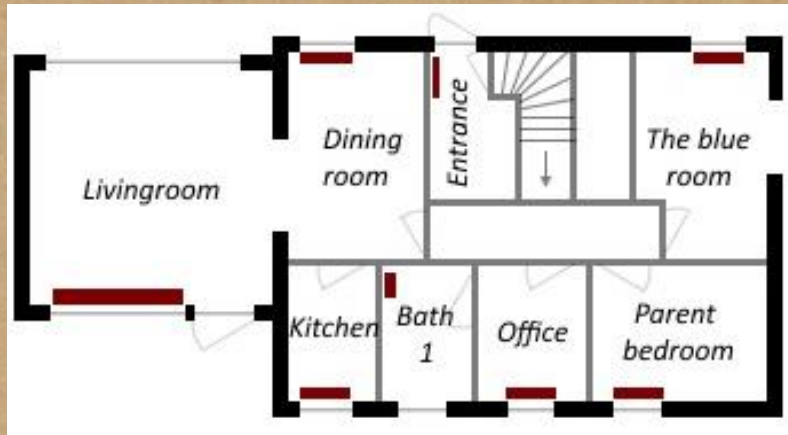
Random single family house from the 1950' ies

Model in
IDA-ICE

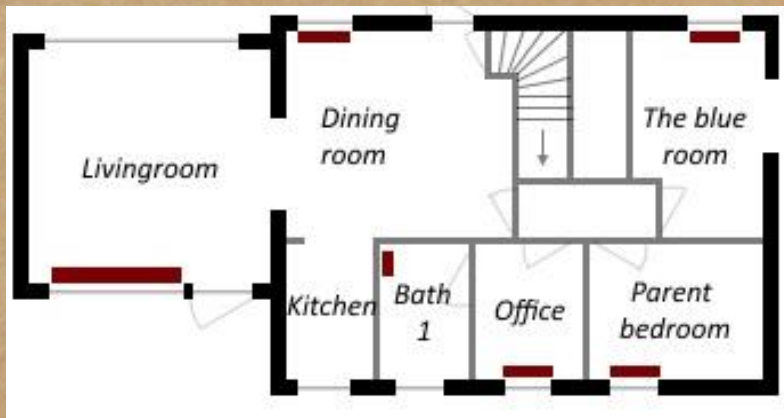


Test project

Expected radiator sizes



Actual radiator sizes



Cooperation

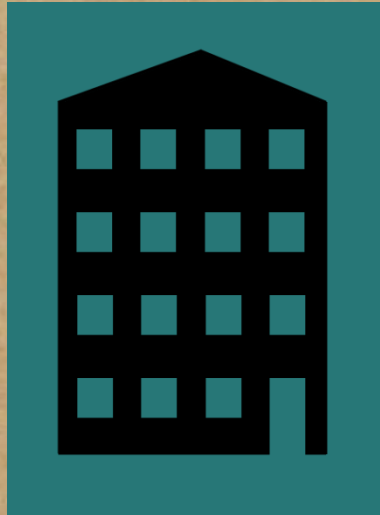
Single family houses in Gentofte
and Bjerringbro



Cooperation



Apartments
possibly in
Viborg and
Copenhagen



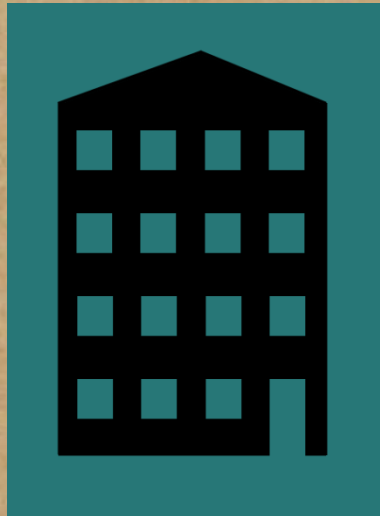
Single family houses in Gentofte
and Bjerringbro



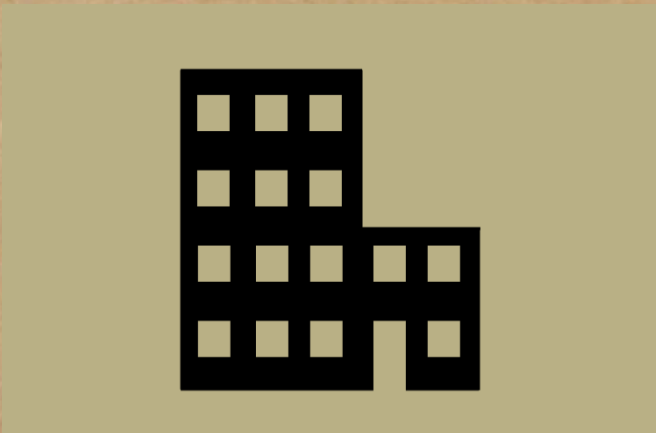
Cooperation



Apartments
possibly in
Viborg and
Copenhagen



Single family houses in Gentofte
and Bjerringbro



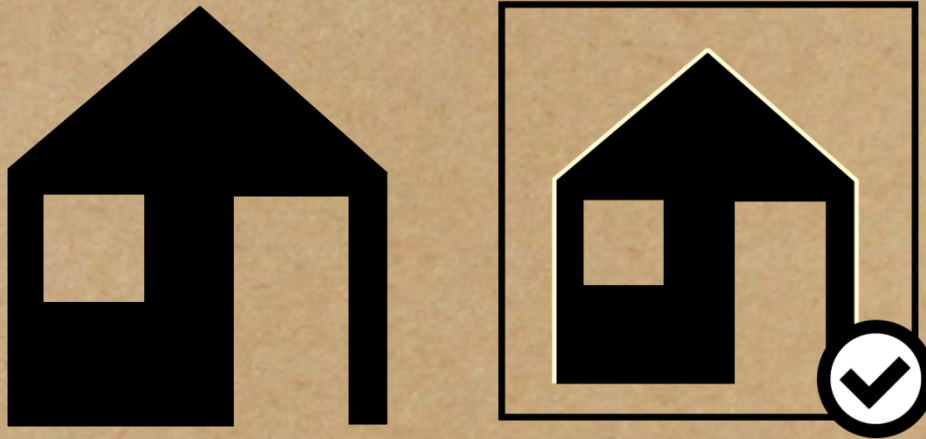
Offices *possibly* at DTU and in Gladsaxe

4DH conference 2015



Is it possible to heat typical existing Danish single family houses with LTDH?

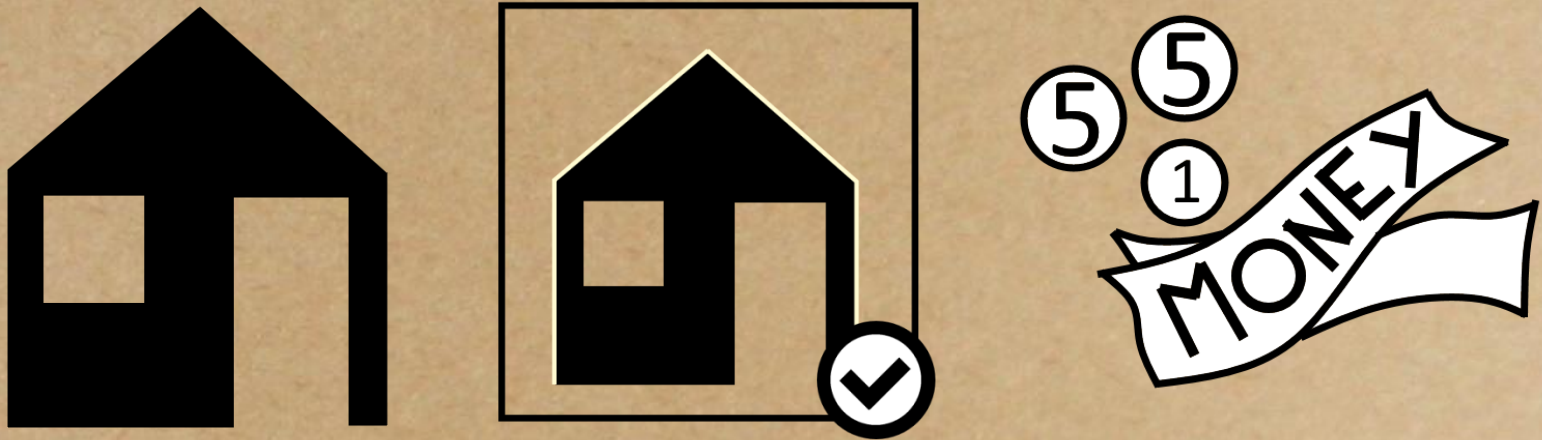
4DH conference 2015



Is it possible to heat typical existing Danish single family houses with LTDH?

- Which refurbishment measures may be required?

4DH conference 2015



Is it possible to heat typical existing Danish single family houses with LTDH?

- Which refurbishments measures may be required?
- What does this cost?

Comments and questions

(or come find me afterwards)

