

*'Save energy with the Woonbond'*

**BESPAAR  
ENERGIE**  
*met de Woonbond*

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# **Woonbond Dutch Union of tenants**

**Onno van Rijsbergen – advisor housing quality**

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# Woonbond

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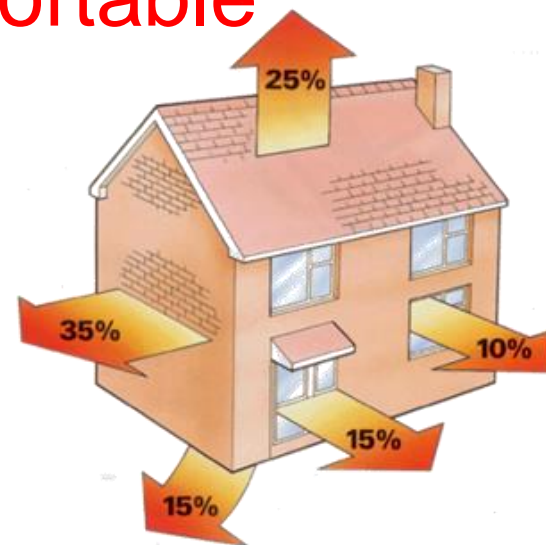
- Represents 1.7 million tenants
- good houses for reasonable price
- Rents are rising, more problems



# Goals Woonbond on energy

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- Lowering housing costs:  
rent + energy cost
- Making houses more comfortable
- More healthy conditions
- Reduction CO2



# Woonbond and energy

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- Many energy projects done:
  - second opinion on measures
  - realistic save energycosts
  - guarantee on saving
- How to get tenants on board:
  - ask first! what are your problems?
  - solve problems: draught, humidity etc.
  - take them as partners in the proces



# Zero energy renovation

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- It's a good idea !!
- Most projects now: only half way
- Critical about housing costs



# Zero energy renovation

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The good part:

- Real end solution, not half way
- First models: it seems possible without high costs for tenants



# Zero energy renovation

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## Questions:

- Assumption: average energy consumption now: € 150,- /m
  - Model based on:  
tax refund and compensation
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# Zero energy renovation

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What if tenants use little energy old situation

|         | average  |        | Per month | low      | Per month |
|---------|----------|--------|-----------|----------|-----------|
| gas     | 1600 m3  | x 0,62 | €83,-     | 1000 m3  | €52,-     |
| fixed   |          |        | €18,-     |          | €18,-     |
| electra | 3000 kwh | X 0,21 | €53,-     | 2000 kwh | €35,-     |
| Fixed   |          |        | €24,-     |          | €24,-     |
| refund  |          |        | -€32,-    |          | -€32,-    |
| Total   |          |        | €146.-    |          | €97,-     |

What if tax refund is finished?

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# Zero energy renovation

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Do habitants fit in the models?

- Will they behave as expected?
- Will techniques perform as expected?



# Zero energy renovation

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## Conclusion:

- Interesting models !!!
  - Gives a push to new developments
  - Thorough evaluation and monitoring required
  - Techniques follow behavior
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