# Thoughts related to future EU strategy on energy saving – with a focus on buildings





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### **Key points**



- 1. Focus of policies from picking low-hanging fruit should be shifted to implementing more strategic solutions (partially due to the lock-in effect)
- 2. Ramping up building renovation rates are important; but much more important is the level of energy savings per renovation; due to the *lock-in effect* and maximising co-benefits
- 3. Many socially cost-effective, strategic measures will not become sufficiently attractive for private decision-makers; thus govt/EU intervention is needed to make them happen (such as financing mechanisms)

### Justification: the lock-in effect

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### Building heating and cooling energy use development in Western Europe, state-of-the-art scenario, vs. floor area development

Work in progress till changing Exact numbers still changing



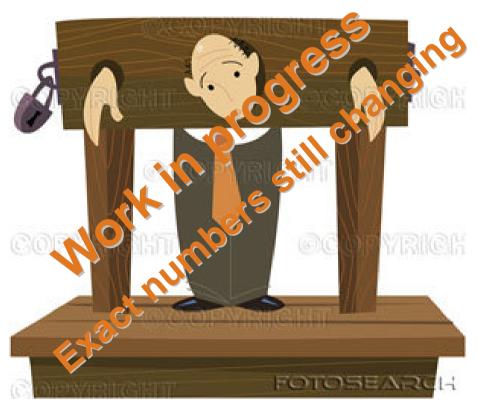




#### The lock-in effect in detail for Western Europe

Heating and Cooling Final Energy, state-of-the-art scenario

Heating and cooling Final Energy, suboptimal scenario









### EU must focus on deep retrofits and cannot afford suboptimal ones

- Otherwise app. 43% of today's heating&cooling emissions will be locked in by 2050; making 80% - 95% targets either unachievable or very expensive to achieve
- Other co-benefits are also largest with deep retrofits:
  - energy security: January natural gas import needs in Hungary can be cut by app. 60% by 2030, as opposed to only 18% if suboptimal renovations are done
  - □ App. 130,000 180,000 net jobs can be created in Hungary alone through a deep retrofit program; vs. app. 40,000 for a suboptimal one
  - ☐ Fuel poverty can entirely be eradicated through deep retrofits; while just eased through suboptimal ones
  - Affordability: population much less vulnerable to NG price volatilities
  - Health and thus productivity gains have shown to amount to much larger \$ savings than direct energy cost savings

### Thus...

- Cherry-picking (~ focusing on "cost-effective" solutions mainly) results in major lock-in effects and significantly reduced benefits
- Cost-effectiveness is wrong indicator while cobenefits and all externalities are not properly integrated into cost-benefit assessments
- EU should focus on strategic solutions rather than short-term cost-minimisation; to really maximise societal cost-effectiveness...



## Financing mechanisms and/or support unavoidable for long-term infrastructure investments

- While many long-term infrastructure investments pay back and are societally very cost-effective, they are not c-e for private decision-makers
  - Payback time (~discount rate) gap
  - Co-benefits are not all enjoyed by private decision-makers
- Therefore public support, or at least financing mechanisms are essential
  - ☐ E.g. zero- or very low interest loans
  - Focusing the Structural/Cohesion Funds (even more) on this
  - ☐ Directing CC-related fees/taxes/carbon-market revenues
- Deep renovations will not happen without certain public/EU interventions...
- ...making many energy policy targets difficult/impossible to achieve by 2050

# Thank you for your attention

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They just keep promising this global warming; but they won't keep this promise of theirs either...

(with permission of HVG)

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