Long-Term Renovation Strategy and building renovation programs in the Czech Republic

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Outline

• Introduction
• Long Term Renovation Strategy
  • Czech Republic – case study
  • Parameters of designed scenarios
  • Survey
  • Barriers
• Financial measures
  • Lessons learned
Introduction

- Influenced by EU membership
- EU energy and climate targets
  - Pressure to increase energy efficiency – tightening building performance rules
Long Term Renovation Strategy

• Supporting renovation of national building stock
• Contains:
  • overview of the national building stock
  • cost-effective approaches towards renovation
  • overview of policies and actions to target the worst performing segments
  • roadmap including indicative milestones for 2030, 2040 and 2050
Czech Republic – case study

- Number of apartment buildings – approximately 211 000
- Data shows **higher** renovation rate than EU yearly average of 1 %
  - Single family houses – 1,4 %
  - Multiapartment buildings – 0,79 %
  - Public and commercial buildings – 1,4 %

- Strategy defines 3 scenarios
  - Business as usual (BAU)
  - **Optimal**
  - Hypothetical
### Parameters of scenarios -

<table>
<thead>
<tr>
<th>Category</th>
<th>BAU</th>
<th>Optimal</th>
<th>Hypotetical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New construction</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Multiapartment buildings</strong></td>
<td>0,46 %</td>
<td>0,46 %</td>
<td>0,46 %</td>
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<tr>
<td><strong>Annual rate of renovations</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Multiapartment buildings</strong></td>
<td>0,79 %</td>
<td>0,79 %</td>
<td>2,00 %</td>
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<tr>
<td><strong>Depth of renovations (DR)</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Maintaining existing DR</strong></td>
<td></td>
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<tr>
<td><strong>DR increased by 2025</strong></td>
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<tr>
<td><strong>DR increased by 2030</strong></td>
<td></td>
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<tr>
<td><strong>Multiapartment buildings</strong></td>
<td>Shallow</td>
<td>31 %</td>
<td>20 %</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>50 %</td>
<td>40 %</td>
<td>10 %</td>
</tr>
<tr>
<td><strong>Deep</strong></td>
<td>19 %</td>
<td>40 %</td>
<td>85 %</td>
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<table>
<thead>
<tr>
<th>Chosen scenario - Optimal</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
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</thead>
<tbody>
<tr>
<td><strong>final energy consumption in the given year [PJ]</strong></td>
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<td></td>
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<tr>
<td><strong>Multiapartment buildings</strong></td>
<td>88</td>
<td>83</td>
<td>78</td>
<td>73</td>
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<tr>
<td><strong>cumulative investment costs [CZK billion]</strong></td>
<td></td>
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<tr>
<td><strong>Multiapartment buildings</strong></td>
<td>13</td>
<td>45</td>
<td>76</td>
<td>105</td>
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</table>
Survey – motivations for renovation

Survey findings - multiapartment buildings

- Since 2010, **more than two thirds** of apartment buildings have undergone at least some renovation of the common parts of the apartment building.

- Common motivations for renovation:
  - House maintenance or an acute solution of an issue, i.e. the technical condition of the building
  - Improvement of the internal environment
  - Energy saving costs

- Availability of a subsidy was not a significant factor for renovation
Survey – owners and barriers

**Cooperative houses**
- comprehensive approach, renovate often
  - More measures are implemented at once (complete building envelope – windows, cladding, roof)

**Individual owners**
- renovate sporadically
- significantly lower ratio of the use of commercial loans
  - low motivation

**Other categories**
- gradual renovations
- vast majority of buildings are renovated from their own resources
- subsidy was used only in 12–20% of cases, less than half use a commercial loan to co-finance
Overcoming barriers – policies and measures

Focus
• increasing the quality of renovations and their complexity
• finding a motivating factor for renovations

Introduce appropriate instruments

• Financing
• Legislation
• Awareness raising and education
Support schemes for multiapartment buildings

• **Integrated Regional Operational Program** – financial grant
  • 40% subsidy – energy savings at least 40% and classification B,
  • 30% subsidy – energy savings at least 20%
• **New Green Savings** – financial grant
  • multiple measures – 40% of the total eligible costs
  • single measure – 30% of the total eligible costs
• **Program Panel** – soft loan
  • up to 90% of eligible costs
  • interest rate – 0,50 % p.a.
Support schemes for multiapartment buildings

- Ensures deeper renovation
- Incentives for broad range of measures
- Support for technical assistance – preparation of technical documentation and energy assessment

<table>
<thead>
<tr>
<th>Programme</th>
<th>Projects implemented, 2014-2020</th>
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<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>IROP</td>
<td>1 917</td>
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<tr>
<td>NGS</td>
<td>542</td>
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<tr>
<td>Panel</td>
<td>555</td>
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</table>
Lessons learned

• Positive growth of number of projects within support schemes
• Streamlining criteria and tackling administrative burdens
• Bigger focus on awareness raising – benefits of energy efficient buildings and existing support schemes
• Stable conditions and criteria
• Gathering feedback from applicants (surveys etc.)
• Increase of project costs – influencing the yield because of financial allocations of respective programmes
• Project preparation takes 4-times longer than implementation – need for technical assistance
• Flexible legal framework for building owners associations to prevent a situation in which one apartment owner blocks the whole renovation
Thank you for your attention