
Energy Contracting: How much can it Contribute to Energy Efficiency in the Residential Sector?

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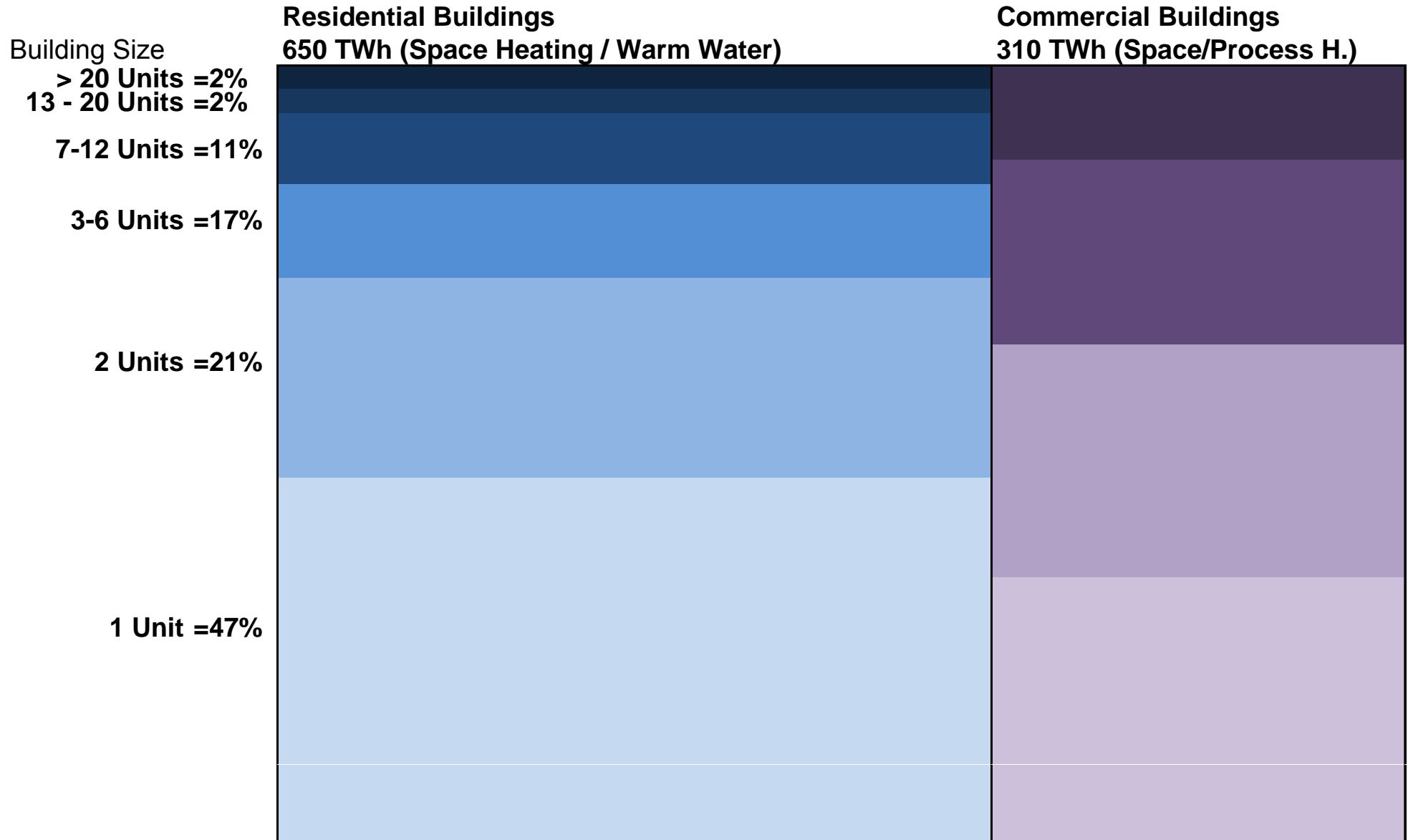
Friedrich Seefeldt

Head of Department „Energy Efficiency“, prognos

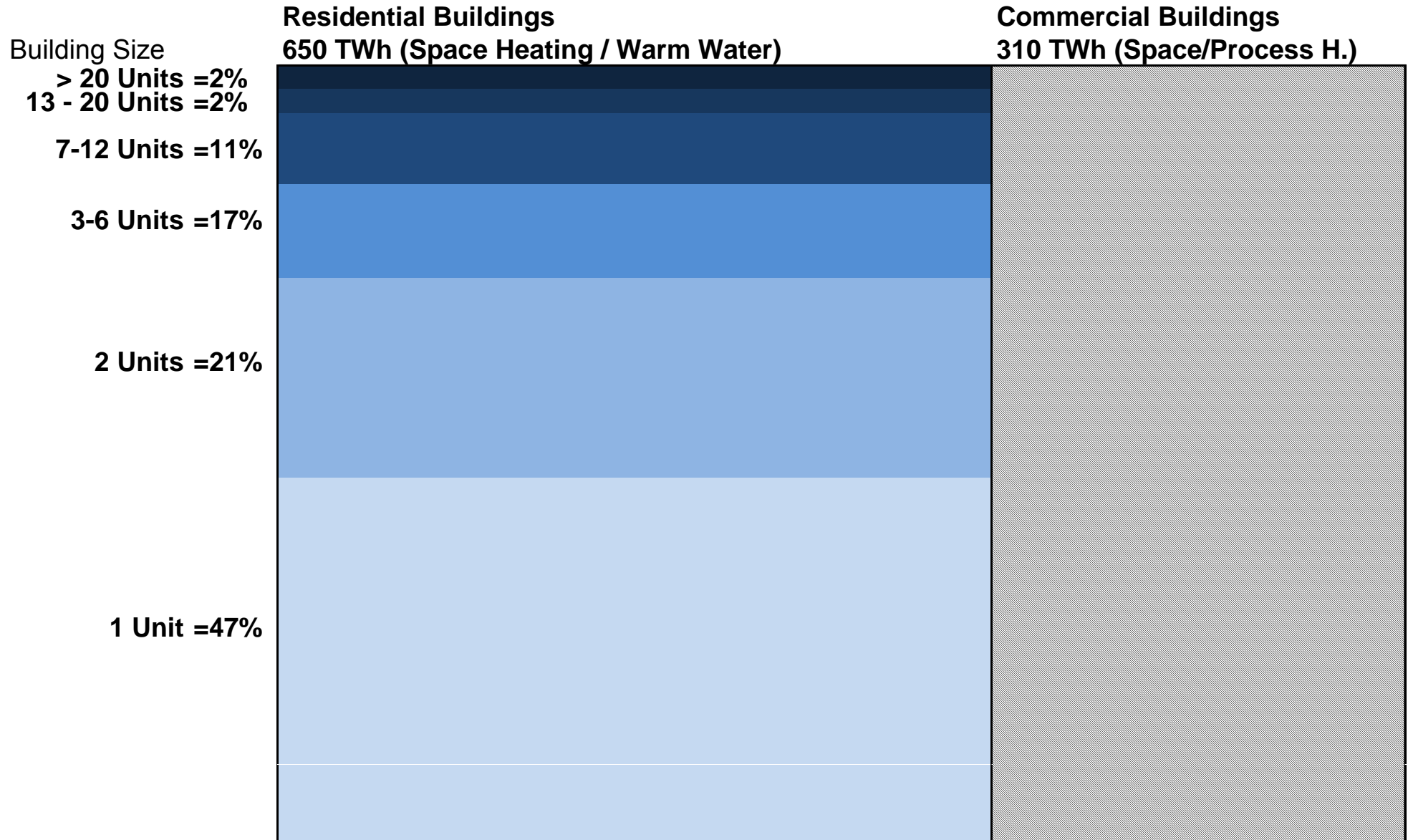
Outline

- 1. Results: How high is the Energy Contracting potential?**
- 2. What are the limiting factors?**
 - Life Cycle Cost Comparison
 - Transaction Cost
 - Scope of Measures
- 3. Summary and Conclusions**

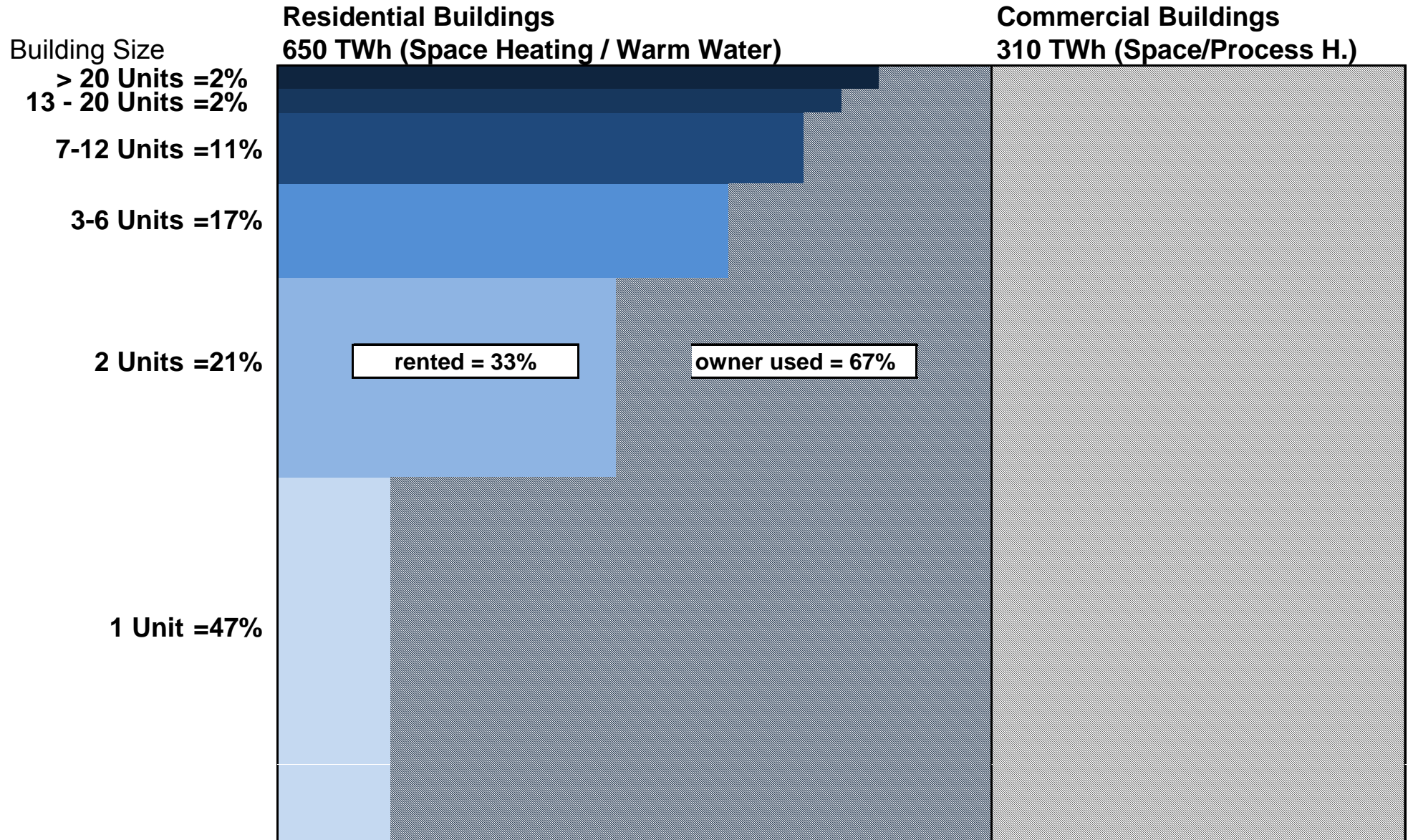
Heat Consumption in Buildings (DE 2007)



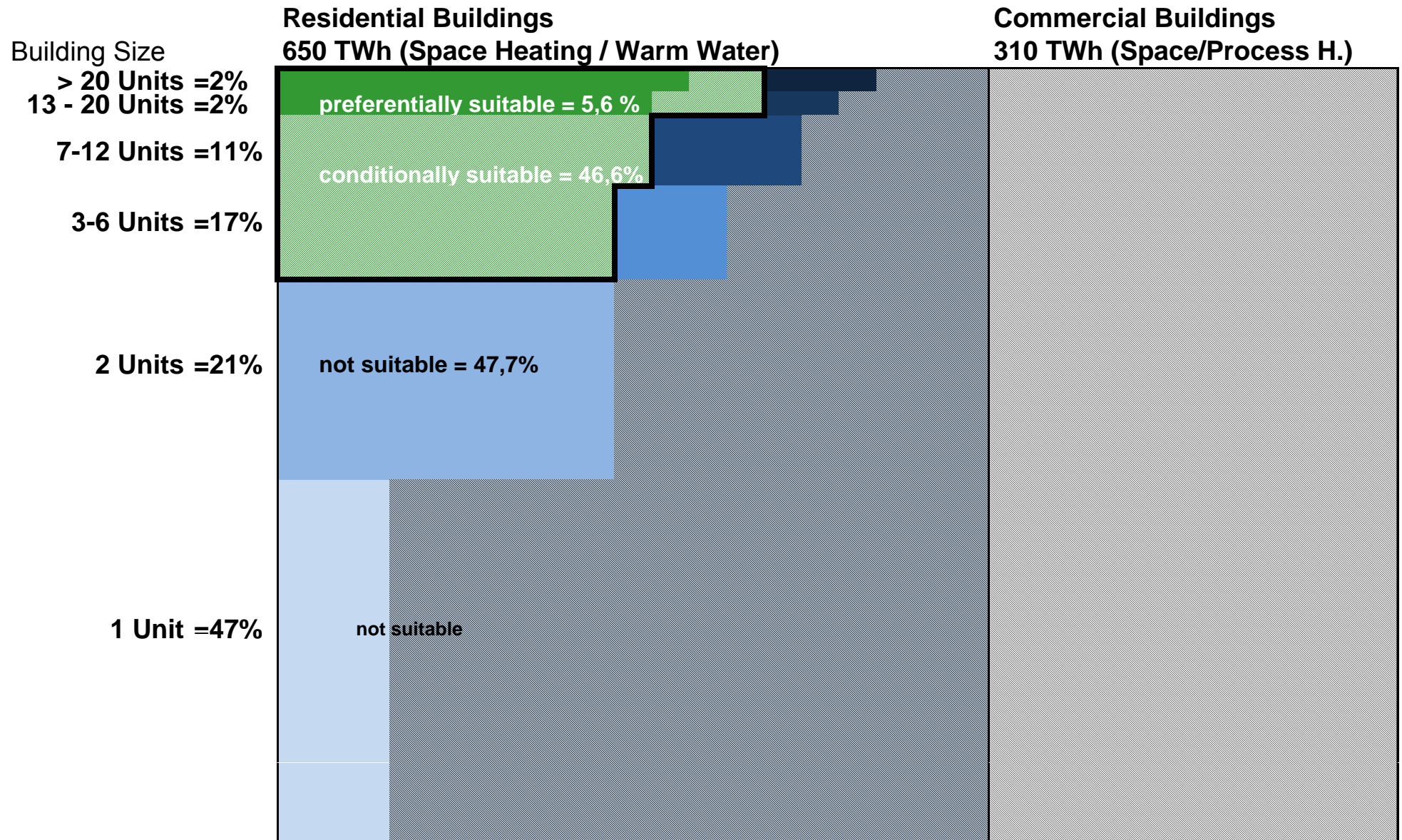
Commercial Buildings: not considered (in this study)



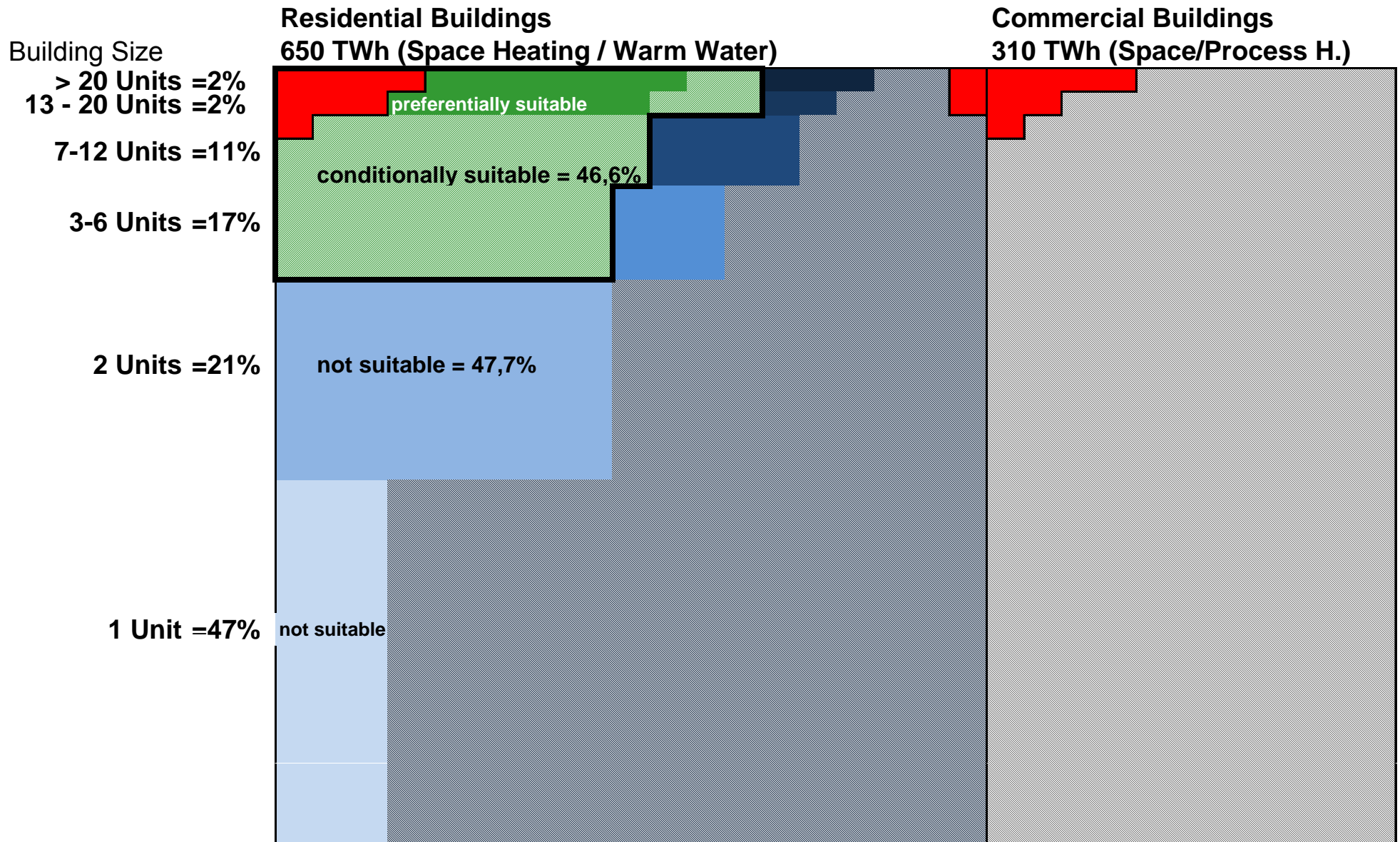
Owner used Buildings: not considered (in this study)



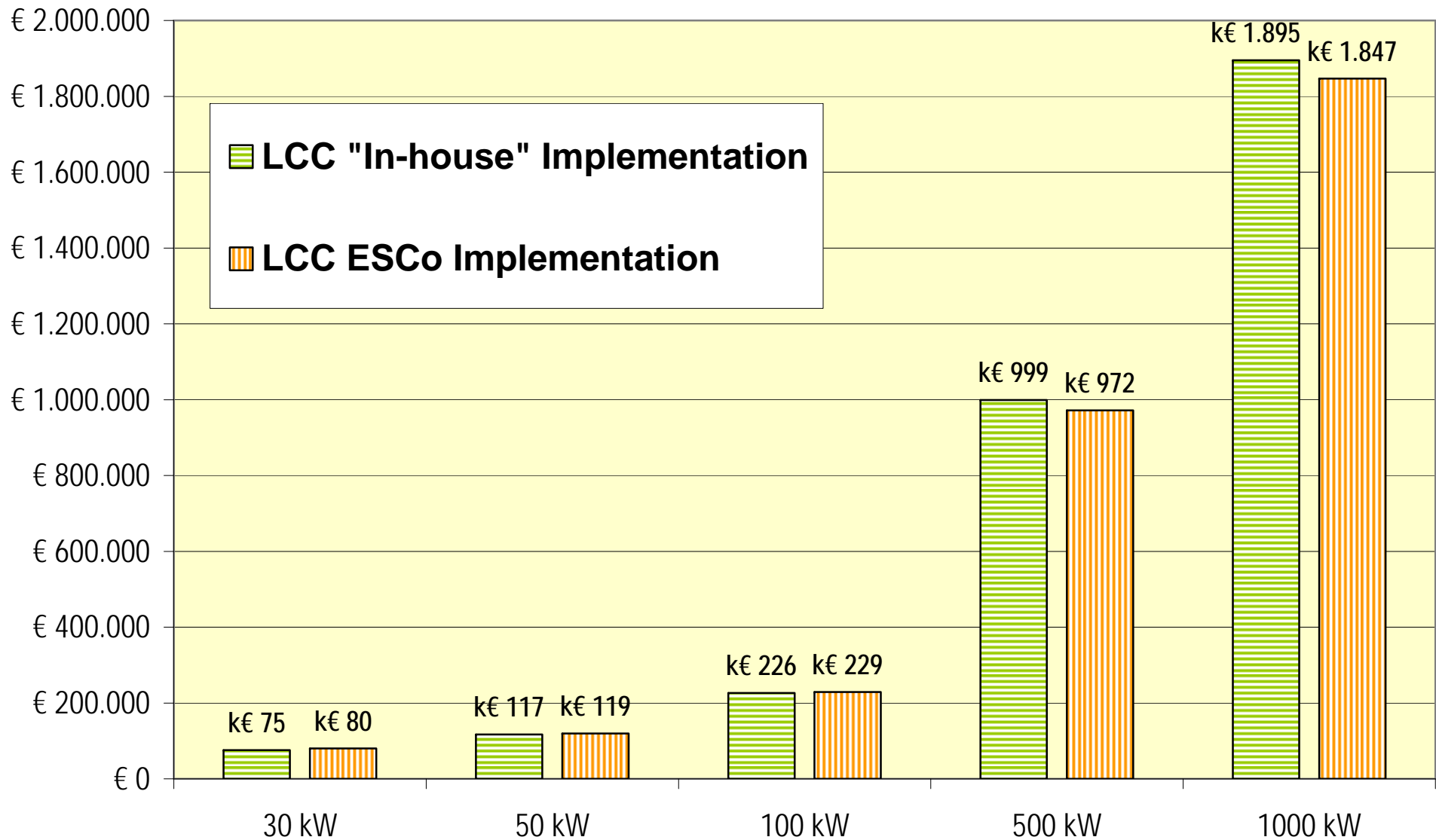
Energy Contracting Potential: limited !!



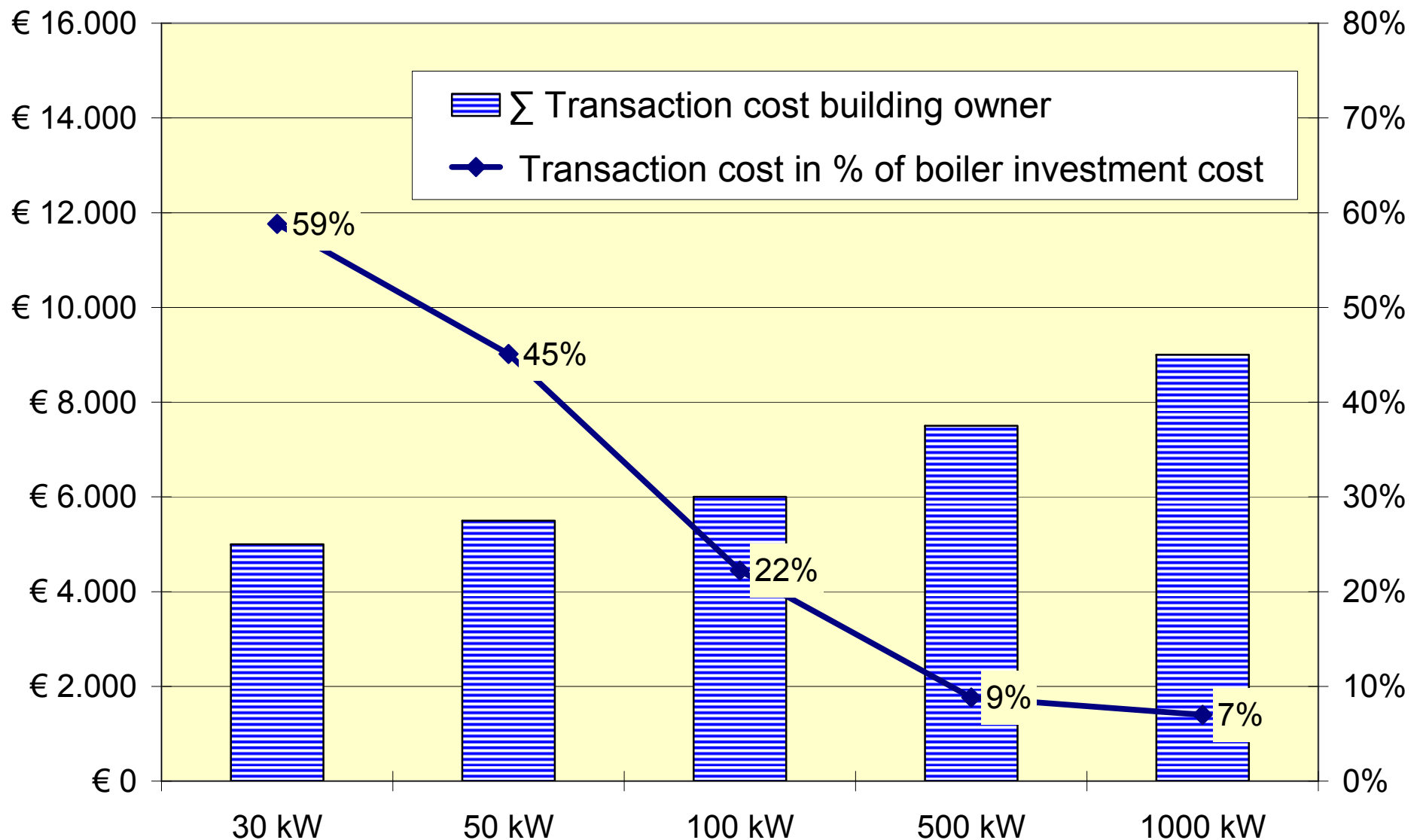
Actual Market: 1,2 bn €/a. Coverage: 15-20%



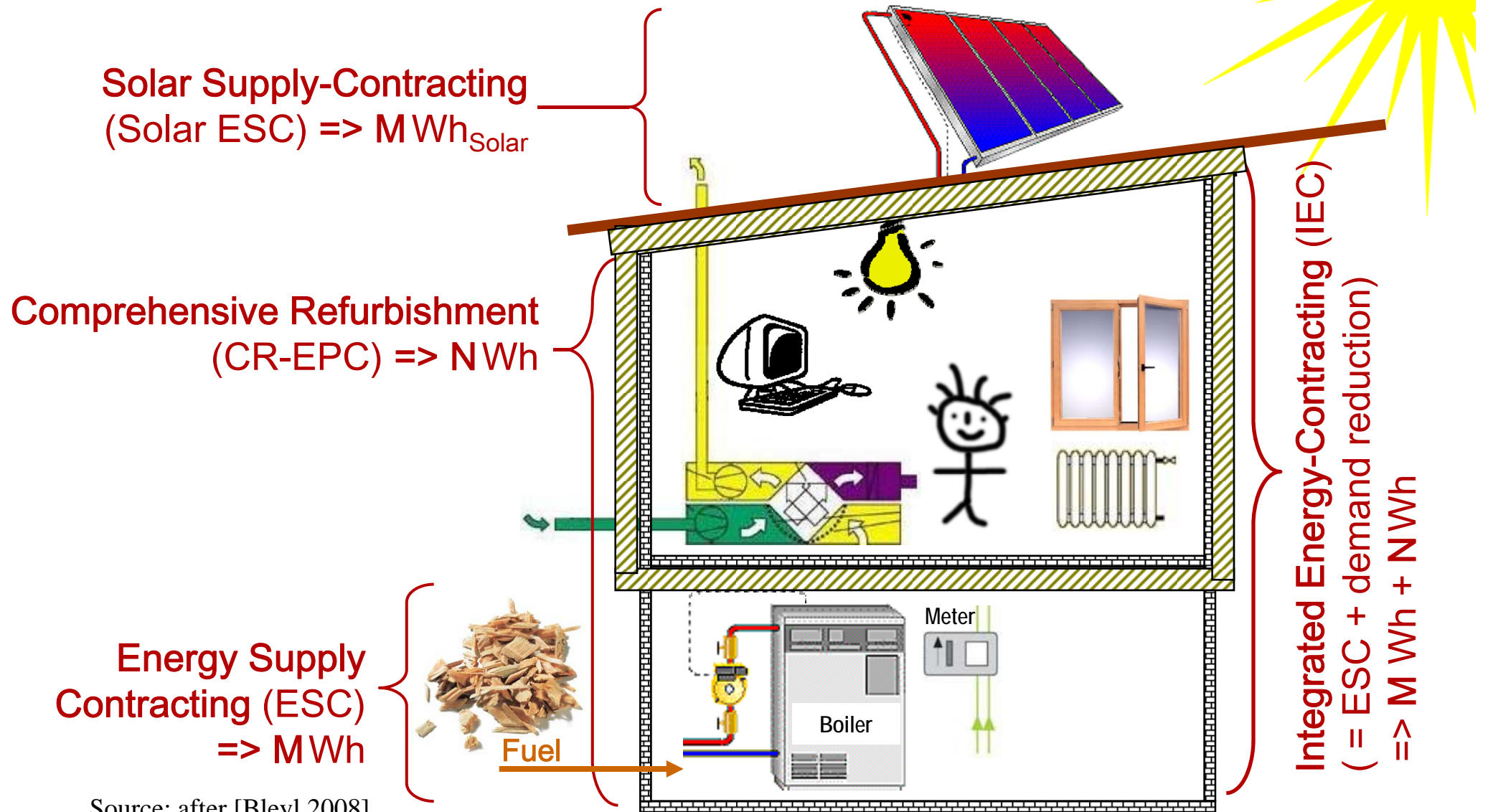
Life Cycle Cost Comparison In-House vs. ESCo for 30 – 1.000 kW_{therm} Installations



Heat Supply-Contracting: Transaction Cost over Thermal Load



Efficiency Potentials of different Energy-Contracting Models



Source: after [Bleyl 2008]

Summary and Conclusions

1. Potential:

„Preferentially suitable“ (> 13 AU) only 5,6 % = 12,3 TWh/a

„Conditionally suitable“ (7-12 AU) only 46,6 % = 102 TWh/a

2. Life Cycle Cost: No significant cost advantage for either „In-House“ or EC implementation

3. Energy Contracting advantages are:

1. Outsourcing of risks and guarantees to ESCo

2. Competent ESCos install innovative technologies

4. Due to Transaction Cost, ESC is restricted to > 100 kW_{therm} => Standardization and market facilitators needed

5. Energy Supply Contracting potential is limited to 20% => to achieve 20-50%: building tech., envelope, user motivation => New Products: e.g. Integrated Energy Contracting