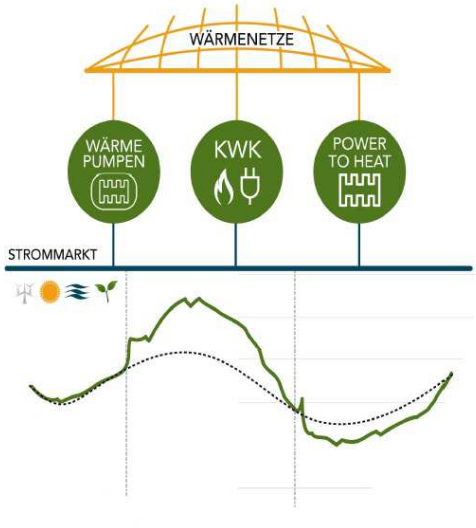
Summary of the study „Flexibility reserves from the heating sector“

The study’s key messages

- The heating sector provides easy-to-initiate flexibility that can balance fluctuating power generation.
- Heat generating units with capacities of 1 MW and above display the greatest potential, particularly CHP units connected to the heating grid.
- Furthermore, it is possible to economically and efficiently integrate the waste heat and contributions of other heat-generating renewables such as solarthermal energy, geothermal energy, etc. into heating grids.
- This study’s model observations show that, despite the technology’s high, fixed annual costs, the heating costs of CHP units and heat pumps with capacities of 1 MW and above remain moderate, even when used at lower capacity.
- Thus the maintenance, further development and expansion of heating grids play an important role in tapping the full potential of the flexibility options dealt with here.



Recommendations for policymakers

- Maintenance and expansion of the heating grid structures as these are required for flexibility
  → An increase in surcharges for the integrated CHP units, particularly those within the higher performance range
- Funding directed more intensely at flexible modes of operation
  → Variable pricing according to time and region
  → Premiums for units of 1 MW and above, including conventional CHP units, when directly marketed
  → Option: multiple tariff (variable rates) (→ Denmark) for smaller or renewable energy-based units
- Funding directed at better plant design
  → Funding should cover the costs incurred by flexibility-oriented designs (→flexibility premium)
- Improve conditions for a grid-bound heating supply
  → Creation of plans for a communal heating supply
- Reduce prices for excess electricity and introduce flexibility for integrated units with demonstrable systemic importance

  → Examination of EEG surcharge exemptions
  → Review of network charges calculations
  → Monitoring of and differentiated regime for exemption of own-power-generation
- Flexibility in terms of access to the balancing market
  → Shorter gate closure times for transactions within the balancing market
  → Further opening of the balancing market for making use of short-term flexibility options

The complete study is available at www.bee-ev.de