

Policy Brief Update

„Energy security impacts of renovating the EU’s worst performing buildings “

This memo provides an update to the Policy Brief on “*Energy security impacts of renovating the EU’s F and G class buildings*”¹ that was delivered for ROCKWOOL on May 5th, 2022. Instead of assuming the MEPS definitions of the European Commission proposal, the numbers shown below are now based on the Final Agreement² text of the Energy Performance of Buildings Directive (EPBD).

Different MEPS design (methodology)

While Minimum Energy Performance Standards (MEPS) are still applied to individual non-residential buildings (26% threshold by 2033), the Final Agreement requires a decrease of the average primary energy use only for residential buildings without targeting individual buildings (20-22% decrease by 2035). The savings are based on envelope energy efficiency measures and fuel/technology switching towards heat pumps and district heating.

Gas volume savings

Based on the original assumptions and the MEPS design from the Final Agreement, a lower and an upper end of bandwidth could be determined for total gas volume savings by 2033 and 2035 respectively.

- Lower end of bandwidth
 - No fuel switching away from oil/gas towards heat pumps and district heat
 - 207 TWh gas savings (approx. 21 bcm)
- Upper end of bandwidth
 - 50% of all fossil fuel-based heating systems are retired by 2033/2035 and replaced³ by heat pumps and district heat (not a MEPS requirement, but in line with EPBD requirements)
 - 427 TWh gas savings (approx. 44 bcm)

The numbers are very significant when putting them into the context of the European Council estimate on the overall gas imports from Russia in 2023, which were approx. 43 bcm⁴.

Gas price savings

Derived from the gas volume savings above, the following gas price savings can be estimated based on the Dutch TTF day ahead price of March 5th, 2024 (25,65 €/MWh).

- Lower end of bandwidth: 5.3 bln Euro
- Upper end of bandwidth: 10.9 bln Euro

The numbers above relate to an ad-hoc potential between today’s situation and the target situation by 2033/2035. In reality, gas consumption is gradually reduced over the next decade and total savings are higher over this period.

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¹ <https://guidehouse.com/-/media/www/site/insights/energy/2022/energy-dependency-f-and-g-class-buildings-20220505.pdf>

² <https://data.consilium.europa.eu/doc/document/ST-16655-2023-INIT/en/pdf>

³ In case fossil fuel-based heating systems are replaced, additional electricity or district-heat demand is triggered (see original Policy Brief).

⁴ <https://www.consilium.europa.eu/en/infographics/eu-gas-supply/#:~:text=The%20share%20of%20Russia's%20pipeline.gas%20consumption%20in%20the%20EU.>