

TABULA

TYPOLOGY APPROACH OF BUILDING STOCK ENERGY ASSESSMENT



PROJECT BACKGROUND

- About 13.8 % of the Austrian CO₂-emissions are produced in the sector "heating and domestic hot water".
- Identification of buildings with the highest CO₂-emissions reduction potential.

OBJECTIVE AND CONCEPT

- **Objective:** development of a **harmonised building typology** for European countries

The national building typology consists of 28 residential **model buildings** with characteristic energy related properties:

- Four building categories:

- SFH Single-family houses
- TH Terraced houses
- MFH Multi-family houses
- AB Apartment blocks

- Seven construction periods:

- I up to 1918
- II 1919-44
- III 1945-60
- IV 1961-80
- V 1981-90
- VI 1991-00
- VII 2001-10

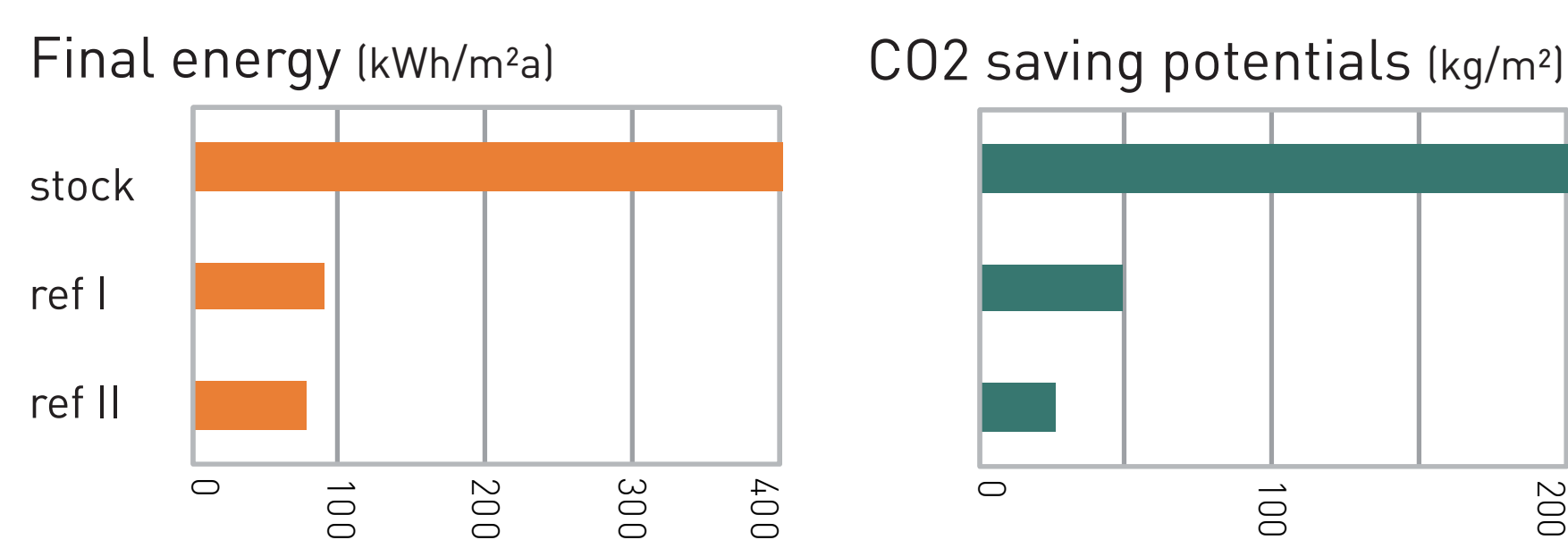
- For each building type **two refurbishment variants** are proposed

- Use of typology:

- assessment of building stock energy consultancy
- cross-country comparisons
- evaluating the energy savings and CO₂ emission reduction potentials

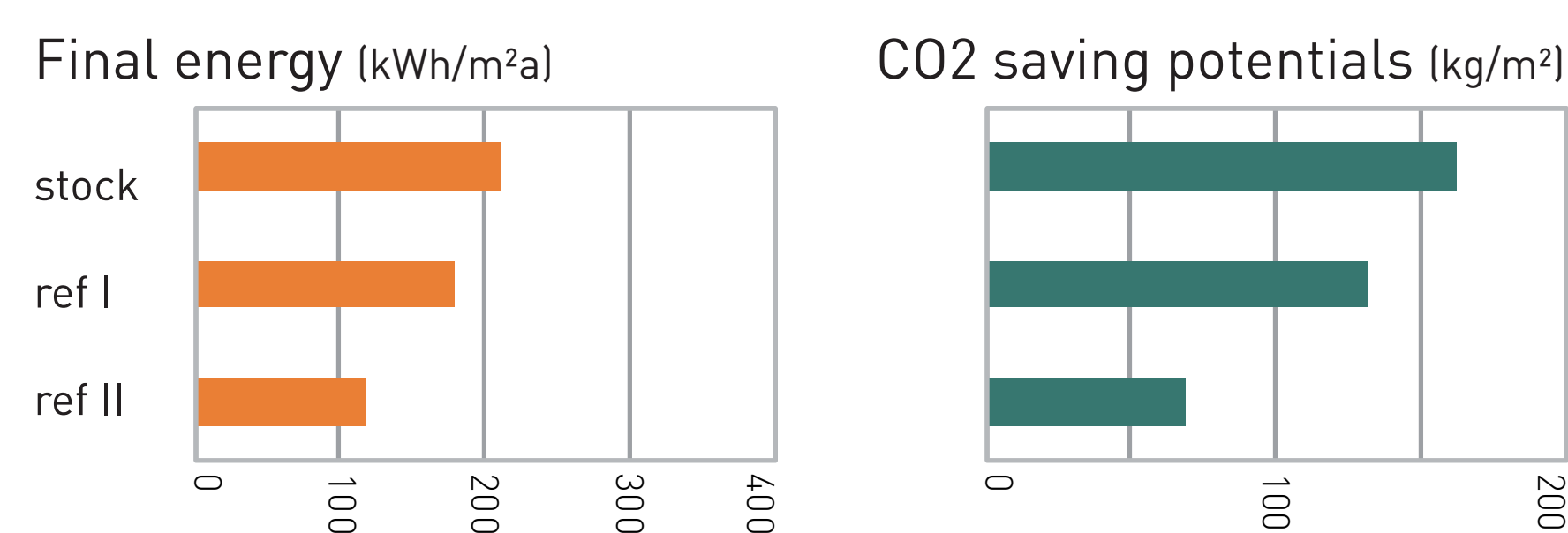
EFH III 1945-1960

GFA 160 m²
HD building stock: 340 kWh/m²a



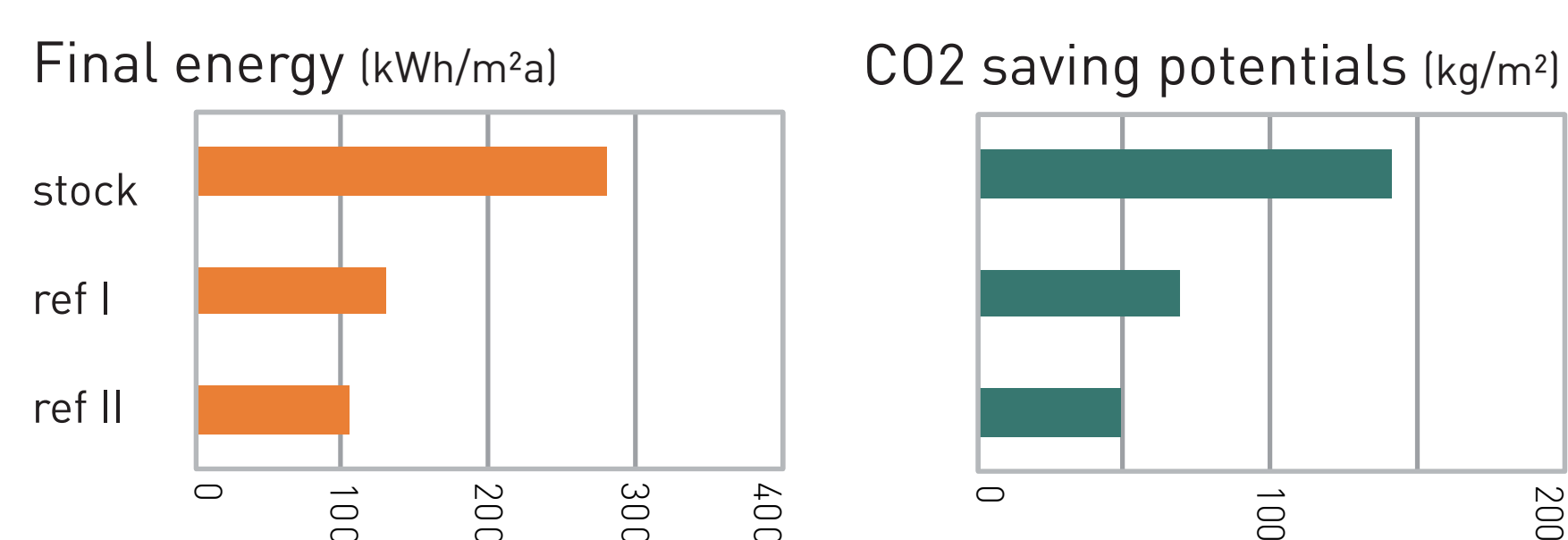
RH VI 1990-2000

GFA 142 m²
HD building stock: 92 kWh/m²a



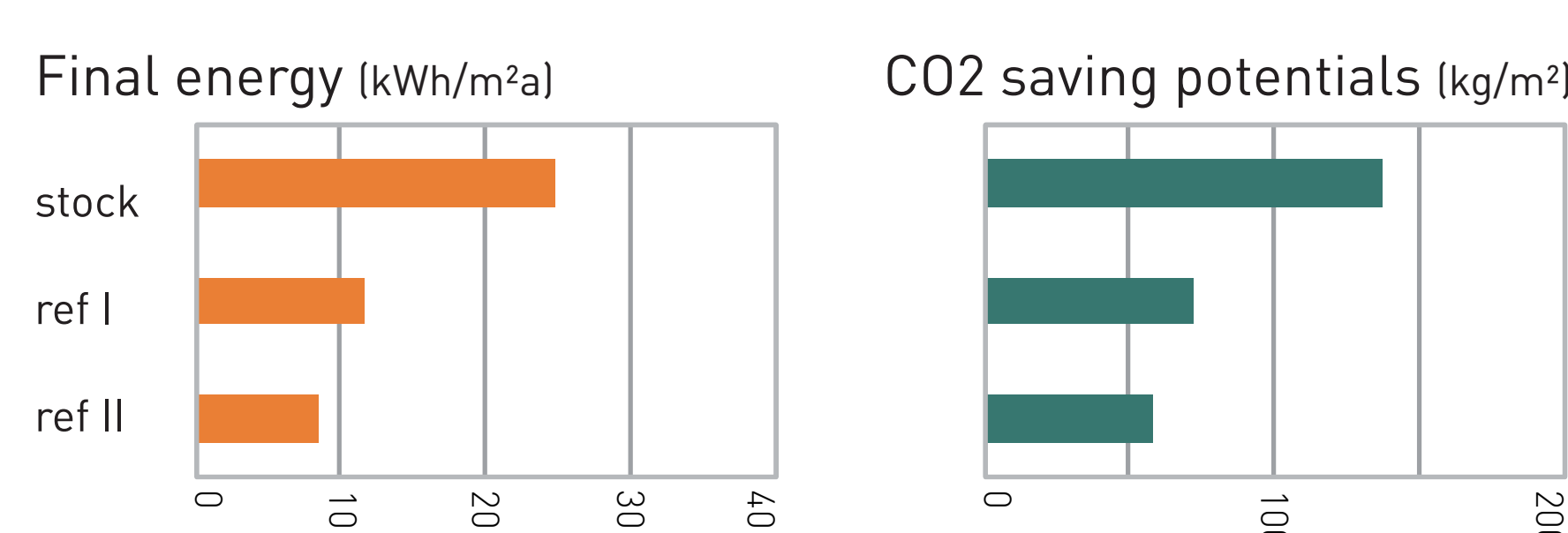
MFH II 1919- 1945

GFA 369 m²
HD building stock: 198 kWh/m²a

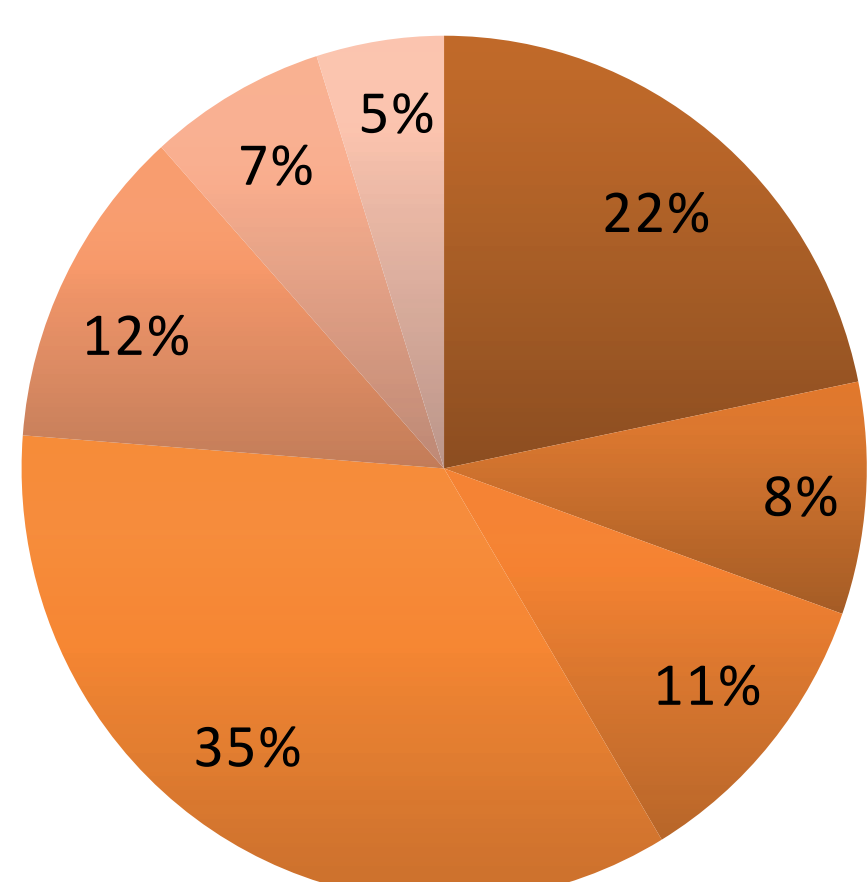


AB III 1945-1960

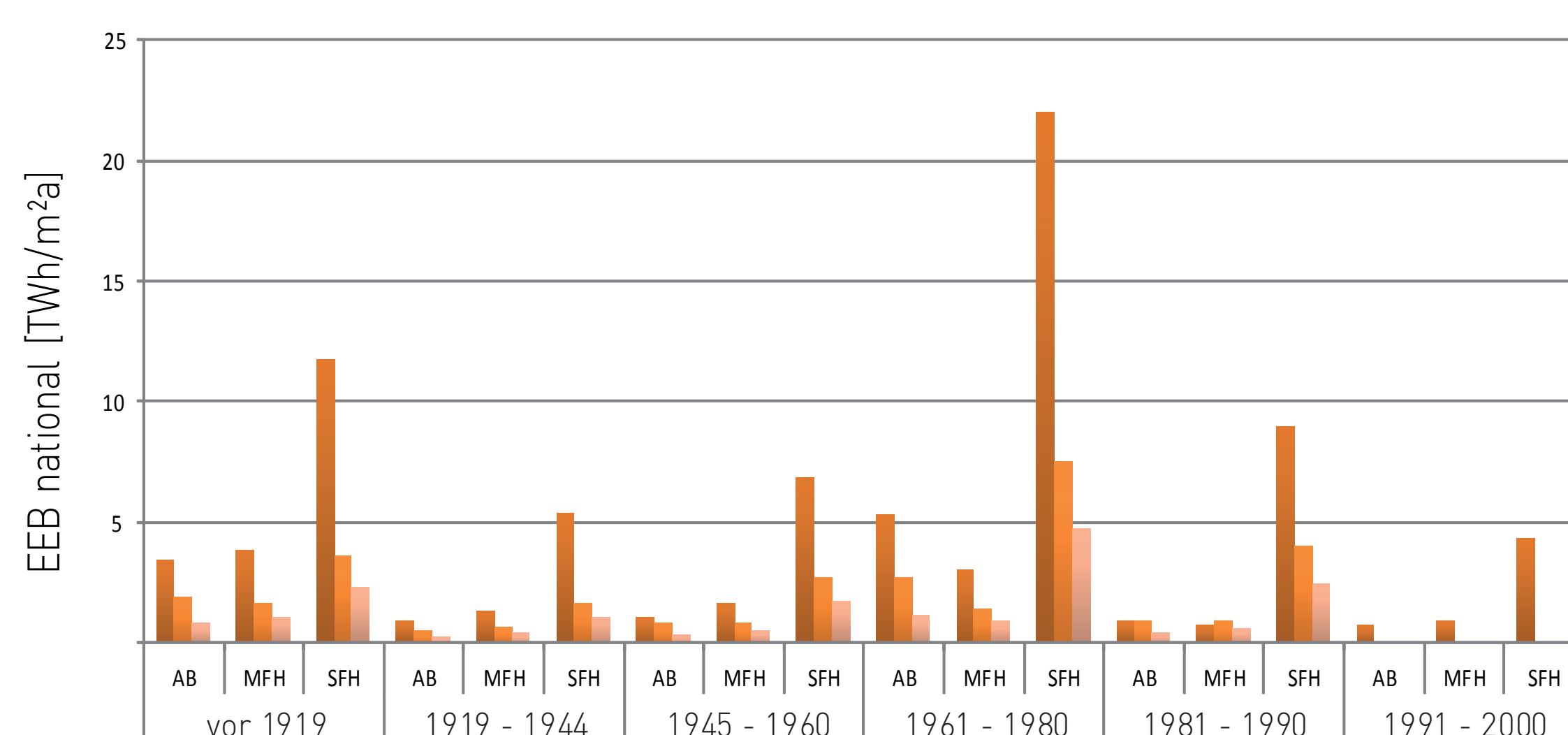
GFA 1,019 m²
HD building stock: 136 kWh/m²a



Distribution of the national final energy demand per specific construction period (residential buildings)



Scenario of possible national final energy demand reduction potentials (in TWh) per typology



■ -19 ■ 19-44 ■ 45-60 ■ 61-80 ■ 81-90 ■ 91-00 ■ 00-10

■ building stock ■ standard refurbishment ■ advanced refurbishment

RESULTS

- National energy saving scenario analysis
- European **webtool and national brochure:**

The national brochure is currently released in version 1.0 for download: www.energyagency.at/fileadmin/aea/pdf/Gebaeude/Tabula_broschure.pdf

Read more: www.building-typology.eu

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