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DEUTSCHE BANK

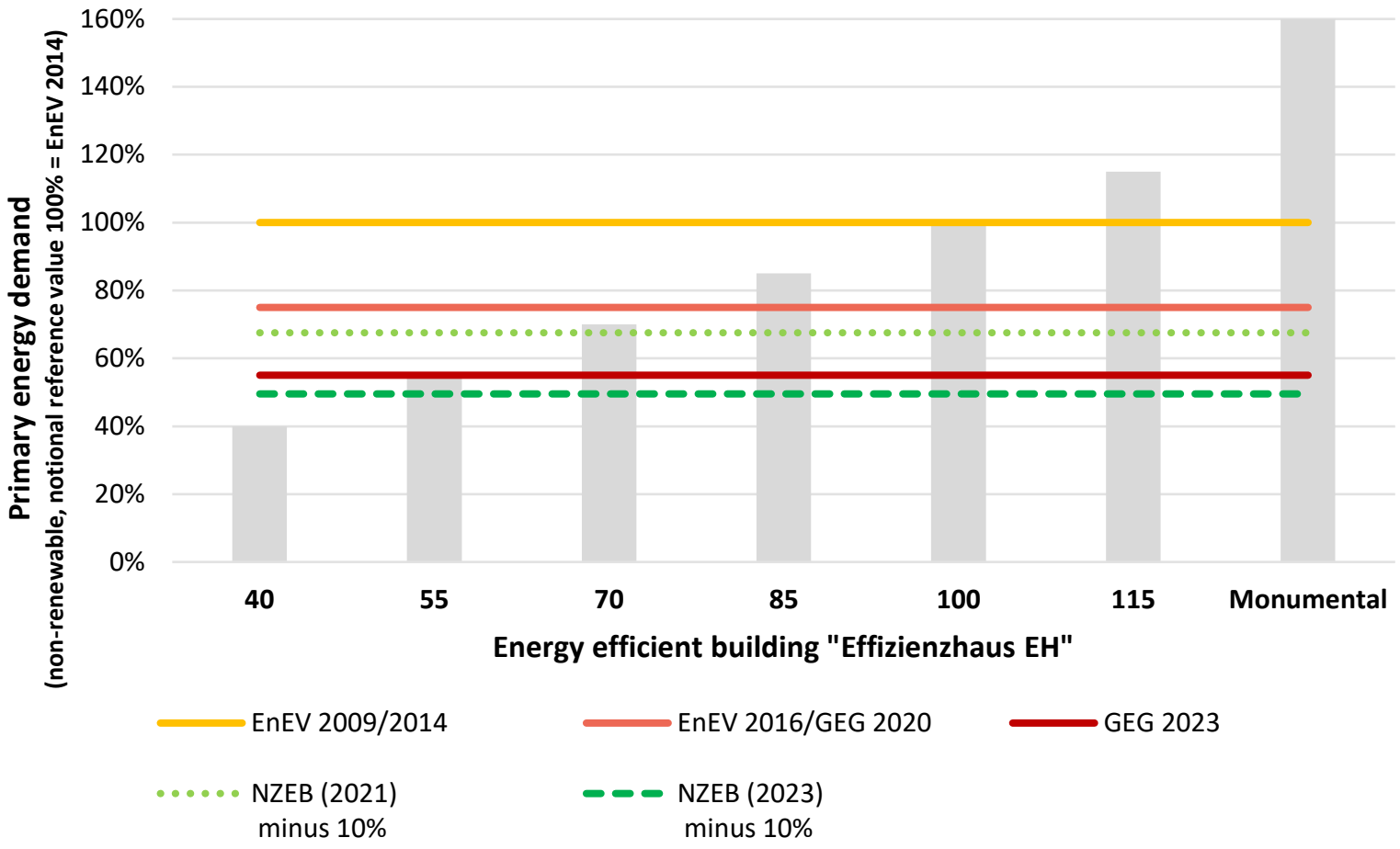
SUSTAINABLE FINANCE & EU TAXONOMY – NEARLY-ZERO AND ENERGY EFFICIENT BUILDINGS IN GERMANY

29.08.2025 – CLAUDIO TSCHÄTSCH

AGENDA

BUILDING ENERGY CODES AND ENERGY EFFICIENT BUILDINGS

EU Taxonomy requirement: NZEB minus 10% in Germany



From 01.01.2021 until December 31st 2022 the nearly zero-energy building (NZEB) code in Germany is in place as the "GEG 2020" with 75% of the notional reference value (= EnEV 2016).

- The EU Taxonomy requirement of NZEB-10% are fulfilled by the energy efficient building standards: **EH 40+, EH 40, EH 55**

From 01.01.2023 the "GEG 2023" with 55% of the notional reference value is set as the NZEB in Germany.

- The EU Taxonomy requirement of NZEB-10% are fulfilled by the energy efficient building standards: **EH 40+ and EH 40**

EnEV = Energieeinsparverordnung, former building energy act
GEG = Building energy act as "Gebäudeenergiegesetz"
EH = Effizienzhaus, Monumental = historic, listed buildings
EH-Standards by KfW: Bank aus Verantwortung | KfW

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BUILDING ENERGY CODES AND ENERGY EFFICIENT BUILDINGS

EU Taxonomy requirement: NZEB minus 10% in Germany

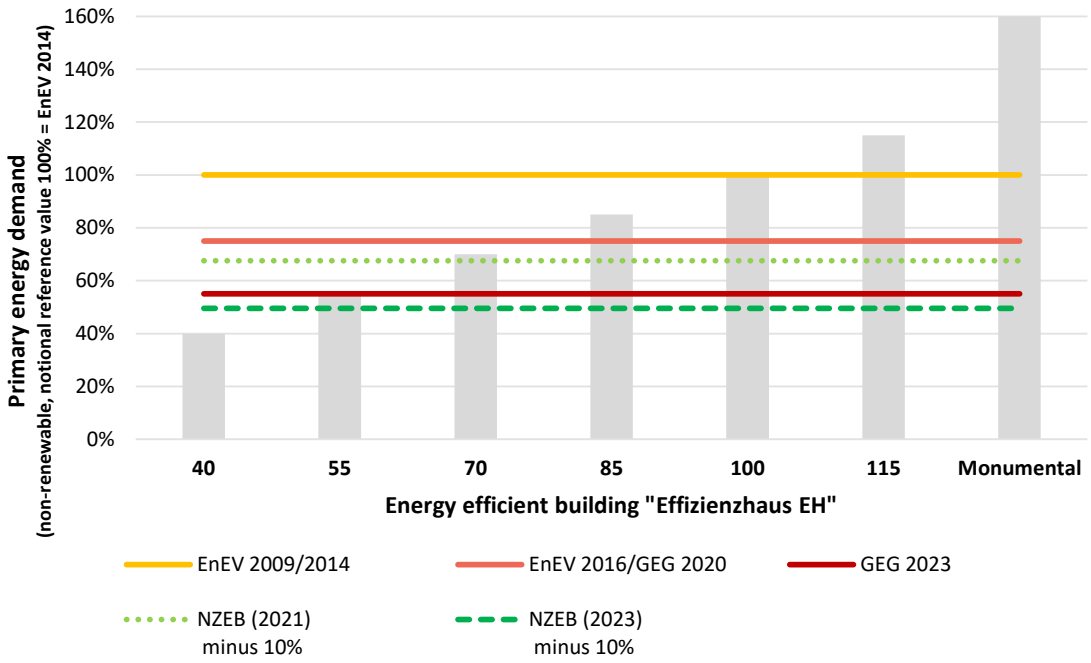
Effizienzhaus EH	KfW - energy efficient loan programms		
(residential)	*KfW 153*	*KfW 261*	*KfW 297/298/300/498*
EH40+			
EH40			
EH55			-
EH70	-		-
EH85	-		-
Monumental	-		-

Effizienzhaus EH	EU Taxonomy requirement NZEB-10% from 2021/01/01 until 2022/12/31		
(residential)	*KfW 153*	*KfW 261*	*KfW 297/298/300/498*
EH40+	✓	✓	✓
EH40	✓	✓	✓
EH55	✓	✓	-
EH70	-	×	-
EH85	-	×	-
Monumental	-	×	-

**KfW 261: EH70, EH85, and Monumental standards apply for building renovation, not for new construction*

Effizienzhaus EH	EU Taxonomy requirement NZEB-10% from 2023/01/01		
(residential)	*KfW 153*	*KfW 261*	*KfW 297/298/300/498*
EH40+	×	✓	✓
EH40	×	✓	✓
EH55	-	-	-
EH70	-	-	-
EH85	-	-	-
Monumental	-	-	-

**KfW 153 discontinued from June 30 th 2021, and was replaced by KfW 261.*



✓	*fulfills the requirements until June 30 th 2021*
✓	*fulfills the requirements until January 31 st 2022*
✓	*fulfills the requirements of the EU Taxonomy*
×	*requirements of the EU Taxonomy are not being fulfilled*
	energy efficient standard within the KfW-loan program
-	*not eligibile within the KfW-loan program*

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EU Taxonomy requirement: NZEB minus 10% in Germany

NZEB minus 10% from 2021/01/01				
Energy efficient building/ **KfW-loan program**	**EH70**	**EH55**	**EH40**	**EH40+**
KFW 153	-	✓	✓	✓
KFW 261	×	✓	✓	✓
KFW 297/298/300/498	-	-	✓	✓

NZEB minus 10% from 2023/01/01				
Energy efficient building/ **KfW-loan program**	**EH70**	**EH55**	**EH40**	**EH40+**
KFW 153	-	-	-	-
KFW 261			✓	✓
KFW 297/298/300/498	-	-	✓	✓

✓	*fulfills the requirements until June 30 th 2021*
✓	*fulfills the requirements until January 31 st 2022*
✓	*fulfills the requirements of the EU Taxonomy*
×	*requirements of the EU Taxonomy are not being fulfilled*
	energy efficient standard within the KfW-loan program
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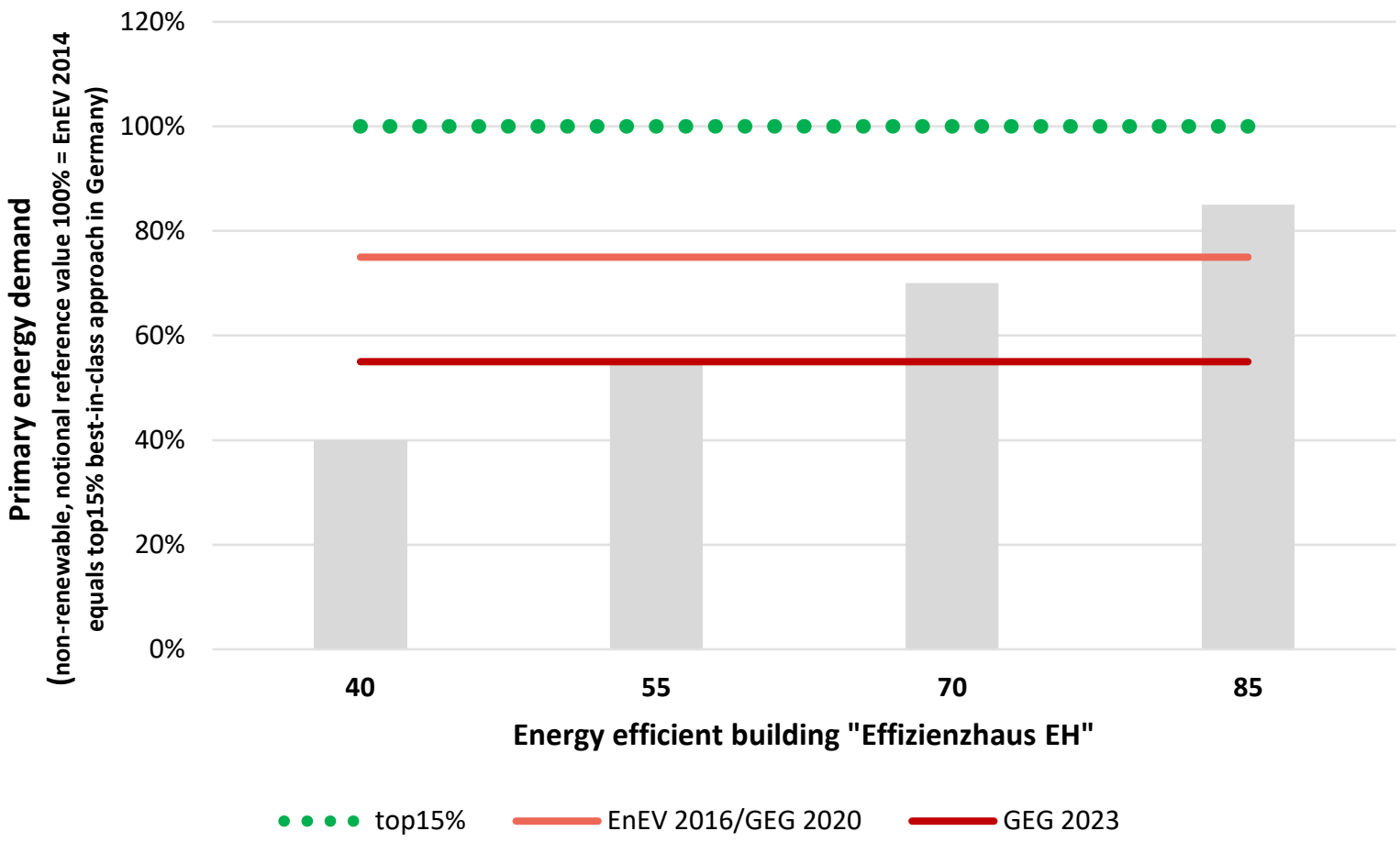
AGENDA

BUILDING ENERGY CODES AND ENERGY EFFICIENT BUILDINGS

EU Taxonomy requirement: top15% best-in-class approach in Germany



Top15%

- For residential buildings in Germany, one of the eligibility criteria for fulfilling the EU Taxonomy requirement for the top15%-best in class approach (belonging to the best 15% of the national existing building stock, based on energy efficiency and energy performance, expressed in non-renewable operational primary energy demand) can be proven by the appliance of the KfW energy efficient buildings standards: EH 40+, EH 40, EH 55, EH 70 and EH 85.
- Other EU Taxonomy indicators as the energy performance certificate EPC A label, or other top15% thresholds e. g. area-specific end energy demand or CO_2-emissions, can be fulfilled by the energy efficient buildings with QNG-label PLUS/PREMIUM, once the underlaying requirements are met.

"QNG = Qualitätssiegel Nachhaltiges Gebäude" Home - Informationsportal Nachhaltiges Bauen

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ENERGY EFFICIENT NEW CONSTRUCTION – KFW-EFFIZIENZHAUS (KFW 153)

Building energy efficiency - technical details and requirements (excerpt)

KfW 153 Loan: replaced by KfW 261 since 2021/06/30

- Energy source:
  - No fossil fuels, also excluded are: fossil furnaces, boilers, hybrid systems with renewable energy or peak load fossil fuel-based boilers in district heating systems
- KfW Effizienzhaus
  - 40 Plus, 40: 40% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
  - 55: 55% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
- Alternate compliance pathway through reference values: KfW EH 55 with:
  - Roof surfaces, top floor ceiling: $U \leq 0{,}14$ W/(m² K)
  - Windows and other transparent components: $U_w \leq 0{,}90$ W/(m² K)
  - Roof windows $U_w \leq 1{,}0$ W/(m² K)
  - Exterior walls, floor slabs against outside air: $U \leq 0{,}20$ W/(m² K)
  - Other opaque building components (basements, ceilings, walls, and ceiling to unheated rooms, wall and floor surfaces against the ground):$U \leq 0{,}25$ W/(m² K)
  - Doors (Basement and exterior): $U_D \leq 1{,}2$ W/(m² K)
  - Thermal bridges: $\Delta U_{WB} \leq 0{,}035$ W/(m² K)
  - Air-tightness: $n50 \leq 1{,}5\ ^{h-1}$ or $q50 \leq 2{,}5\ ^{h-1}$

Building systems (Heating, Ventilation, Air Conditioning - HVAC):

One of the following six building system concepts must be applied. The heating system heat transfer station must be located within the thermal building envelope and a central domestic hot water system must be in place. Domestic hot water circulation is permitted:

- Gas condensing boiler, solar domestic hot water preparation (standard values according to DIN V 4701-10), central ventilation system with heat recovery (heat supply rate ≥ 80%)
- District heating with certified primary energy factor $f_p \leq 0.7$, central ventilation system with heat recovery (heat supply rate ≥ 80%)
- Central biomass heating system based on wood pellets, wood chips, or logs, central exhaust air system
- Brine-water heat pump with surface heating system for heat transfer, central exhaust air system
- Water-water heat pump with surface heating system for heat transfer, central exhaust air system
- Air-water heat pump with surface heating system for heat transfer, central ventilation system with heat recovery (heat supply rate ≥ 80%)

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ENERGY EFFICIENT NEW CONSTRUCTION – RESIDENTIAL (KFW 297, 298, 300 & KFW 498)

Building energy efficiency - technical details and requirements (excerpt)

KfW 297, 298, 300 498 loan:

- KfW energy efficiency building:
  - KFWG
    - 40 Plus, 40: 40% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
    - Life-cycle-assessment with global warming potential (CO_2-emissions) <24 $kgCO_2$/ m²a
  - KFWG-Q: as KFWG, additional QNG-certification PLUS or PREMIUM
- Energy source:
  - No fossil fuels (gas/oil/coal, peat, hydrogen (fossil), biogenic gas/oil, or solid biomass)
  - No fossil fuels in combination with condensing boilers with systems for using renewable energy sources

For QNG PLUS/PREMIUM, additional requirements apply to

- Sustainable material extraction and sourcing
- Healthy building materials
- Accessibility

Building systems (Heating, Ventilation, Air Conditioning - HVAC):

- From January 1, 2024, energy-efficient houses equipped with an air source heat pump with an outdoor unit will only be eligible for funding under this funding guideline if the
  - noise emissions of the outdoor unit are at least 5 dB lower than the noise emission limits for heat pumps in European Implementing Regulation No. 813/2013 (Ecodesign Regulation) in the version dated August 2, 2013
- From January 1, 2027, only heat pumps with natural refrigerants may be installed in energy-efficient houses covered by this subsidy guideline.
- From January 1, 2025, heat pumps in eligible energy-efficient buildings under this guideline must have interfaces that allow them to be automatically activated and operated in a grid-friendly manner (e.g., using the “SG Ready” or “VHP Ready” standards).

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ENERGY EFFICIENT RENOVATION – KFW-EFFIZIENZHAUS (KFW 261)

Building energy efficiency - technical details and requirements (excerpt)

KfW 261 loan:

- KfW-Effizienzhaus
  - 40, 40 EE, 40 NH: 40% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
  - 55, 55 EE, 55 NH: 55% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
  - 70, 70 EE, 70 NH: 70% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
  - 85, 85 EE, 85 NH: 85% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand
  - EE: An “EE Efficiency House” class is achieved when renewable energies and/or unavoidable waste heat provide at least 65 percent of the energy required for heating and cooling the building.
  - NH: An “NH efficiency house” class is achieved when an efficiency house is issued with a sustainability certificate confirming that the measure complies with the requirements of the “Sustainable Building” quality seal “QNG”.
- KFW-Effizienzhaus-Stufe Denkmal
  - Listed building / historic: up to 160% of the notional reference threshold from the reference building EnEV 2014 (100%), expressed in annual primary energy demand

Energy source:

Only heat systems based on renewable energies are eligible for funding.

Gas-powered heat generators (e.g., gas condensing boilers, gas-powered combined heat and power plants, gas radiators, gas hot air generators) and related measures (e.g., their installation and connection, as well as exhaust systems and chimneys) are not eligible for funding.

The subsidy for new buildings under KfW 261 was discontinued on March 1, 2023, due to the follow-up subsidy programs for new buildings (297, 298, 300).

In addition, from February 1, 2022, only new buildings with KfW 40 or better were subsidized nationwide.


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