

# Green Asset Portfolio Preliminary Estimation for the First Green Covered Bond Issuance of UniCredit Jelzálogbank

*This paper presents the methodology used for estimating the potential size of issuance*

UniCredit Jelzálogbank Zrt.

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Budapest, October, 2021, v1.1

# Green Asset Selection Criteria - Top15% Threshold

## Underlying Green Assets

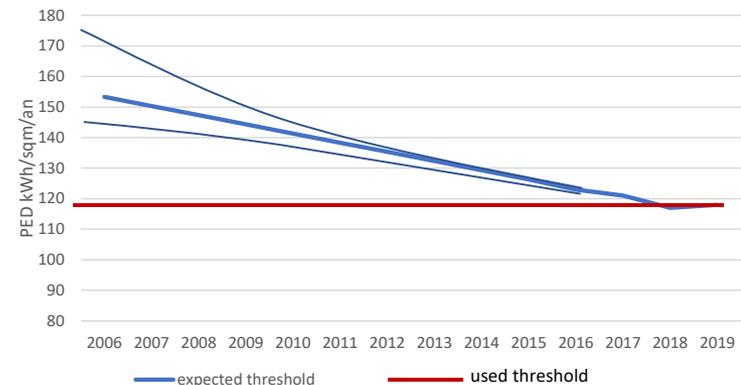
- The first green covered bond issuance of UniCredit Jelzálogbank (Issuer) aimed to be covered by the green assets of the existing cover pool.
- As asset selection criteria the Issuer selected green assets from Residential property portfolio of housing loans (Green Bond Framework, selection criteria)

The announced selection criteria chosen by the Issuer: Construction or acquisition of commercial or residential green buildings which meet at least one of the following criteria:

- Buildings with Energy Performance Certificate (EPC) class 'A' (before 1st of January, 2016) or class 'AA' (after 1st of January, 2016).
- The energy performance (PED) of the building is within the top 15% of the Hungarian building stock. From 2020 the threshold is 118 kWh/sqm/an<sup>1</sup>.
- Implementation of energy efficiency solutions or renovations in the buildings, which lead to a 30% increase in the energy efficiency of the building, or results in at least two steps upgrade in EPC compared to the baseline before the renovation.

## TOP 15%

- The Issuer's framework uses the energy performance of the building within the top 15% of Hungarian property stock.
- In 2021 the TOP15% threshold in Hungary is 118kWh/sqm /an<sup>1</sup>.
- Based on the published paper the top 15% threshold of the Hungarian property market is strictly monotonic decreasing, as in general the energy efficiency of the buildings keeps improving and the newer EPC covers new buildings with better energy performance.
- The Issuer used 118kWh/sqm/an for all Hungarian residential buildings. Since thresholds were higher in earlier years, using the four-year average of 2016-2019 threshold is a conservative approach. As a result the green asset portfolio will be obviously underestimated, representing a prudential view.



1: CBI, with work of National Bank of Hungary, Eligible Residential Building – Hungary, 2021



# Methodology

## External Review

- The Issuer shall publish a final green asset estimation methodology.
- The Issuer entrusts an external reviewer to examine and issue a public assurance letter on green covered bond selection criteria and methodology.
- The issuer shall publish the external reviewer's assurance letter.
- The Issuer uses the statistical methodology described on the following slides to pre-estimate the possible green asset portfolio of outstanding cover pool for the first issuance.

## Green Asset Portfolio – Eligibility criteria - I

- Residential property portfolio of housing loans (Green Bond Framework, selection criteria), the Top15% PED threshold is 118 kWh/sqm/an.
- PED identified by a function of EPC classes.
- Due to the EPC methodological change in Hungary on 1<sup>st</sup> January 2016, the properties are separated into two sub-portfolios. The EPC origination is approached by loan origination.
  - loan start date before 31/12/2015;
  - loan start date after 01/01/2016.

## Green Asset Portfolio – Eligibility criteria - II

- EPC-PED mapping:
  - **After 01/01/2016**
    - The 176/2008 (VI.30.) Gov. Decree determines a range of benchmark rate (rate to the aggregate energy characteristic requirement value).
    - The 7/2006 (V.24.) TNM Decree determines the PED of benchmark.

The Annex1 shows the EPC- PED mapping table and the used eligibility threshold.

Green asset: PED<118kWh/sqm/an, that is

    - from AA++ to BB
    - 68% of CC, based on Hungarian average property characteristics.
  - **Before 31/12/2015**
    - Since before 2016 the PED of residential buildings is a function of A/V, using the 7/2006 (V.24.) TNM Decree's Annex5 III. section, and using Assessment No1 for property A/V, the used PED threshold is
      - for houses: 140 kWh/sqm/an
      - for flats: 110 kWh/sqm/an

The Annex2 shows the EPC- PED mapping table.

Green assets: PED<118kWh/sqm/an, that is

    - houses with A+ - A EPC
    - flats with A+ - D EPC.



# Methodology

## Used Assessments

### Assessment No1

- Before 2016, the aggregate energy characteristic requirement value (benchmark) is a result of linear function of surface/volume of the building. For houses the highest PED is used because the houses typically have higher A/V, for flats the lowest PED is used, because the flats have lower A/V – referring to more and less external surfaces. (see Fig2)

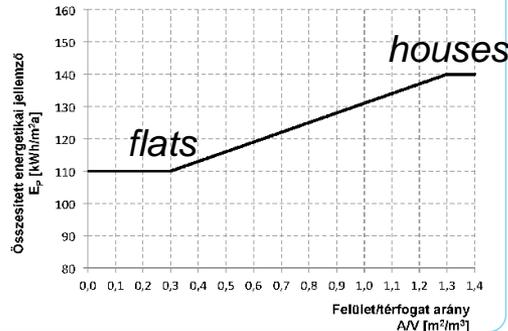
### Assessment No2

- The existing residential portfolio's EPC classification is estimated based on characteristic of random selected samples of the cover pool. See EPC assessment section.

### Assessment No3

- The Hungarian total property market's characteristic is used to identify the TOP15% eligible ratio of the sub-portfolio EPC CC (68%).

Fig2. 7/2006 TNM Decree, Annex 5, Section III, PED-A/V function of the residential buildings



Property type appointment

## EPC assessment

The EPC of the existing property portfolio of the retail housing loans of the cover pool identified, as:

- randomly selected sample on total residential cover pool portfolio originated from parent company UCHU;
- For loans originated before 2015, the 1-digit EPCs are used
- For loans originated after 2016, the 2-digit EPCs are used
- 3 clusters have been analyzed:
  - Flats and houses after 2016
  - Flats before 2015
  - Houses before 2015
- In each cluster a threshold for green assets have been identified based on the distribution
- The threshold of the distribution of the 3 clusters determines the green asset ratio of the total housing portfolio of the parent company UCHU in the cover pool, as estimation based on the samples' characteristic.

The EPC of properties of the new loan production has been recorded in the property valuation system of the bank. That EPCs are not based on assessment.

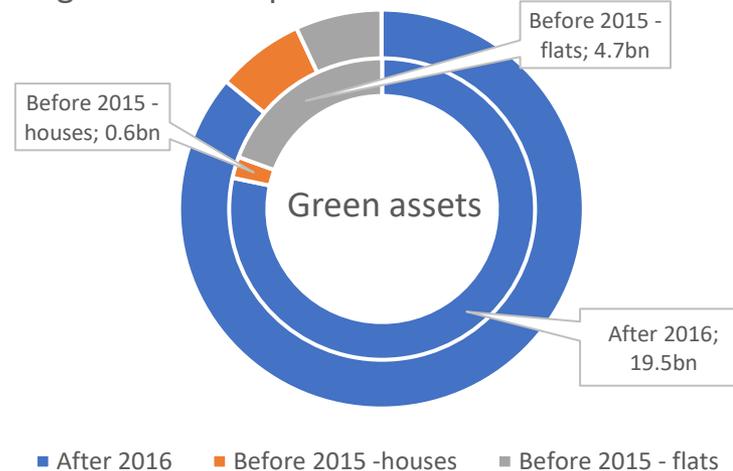
# Methodology

## Green Asset Pre-Estimation

Green asset estimation on existing portfolio on inaugural green covered bond issuance.

- HUF 24.7 bn green assets on cover pool.
- Using an approx. 20% haircut for uncertainty of estimation, the HUF 20 bn issuance probably 100% covered by existing green assets.

### Housing loans in the pool



*Disclaimer:*

*The Issuer keeps all rights to use other methodology and assessment system for green asset portfolio selection that will be reviewed by the external verifier.*

# Methodology

## Annex1 – EPC - PED mapping after 2016

EPC >2016	Benchmark rate and minimum value (BB), that is the NZEB	PED (kWh/sq m/an)	TOP15% eligibility
AA++	<40	<40	eligible
AA+	40-60	40-60	eligible
AA	61-80	61-80	eligible
BB	81-100	81-100	eligible
CC	101-130	101-130	68% eligible
DD	131-160	131-160	
EE	161-200	161-200	
FF	201-250	201-250	
GG	251-310	251-310	
HH	311-400	311-400	
II	401-500	401-500	
JJ	>500	>500	

Threshold: BB and 70% of CC sub-portfolio  
 NZEB: Near-Zero Energy Building

## Annex2 – EPC - PED mapping before 2015

EPC <2015	Benchmark rate	Flat	TOP15% eligibility	Houses	TOP15% eligibility
A+	<55	<60,5	eligible	<77	eligible
A	56-75	60,5-82,5	eligible	77-105	eligible
B	76-95	82,5-104,5	eligible	105-133	
C	96-100	104,5-110	eligible	133-	
D	101-120	110-112,2	eligible		
E	121-150	112,2-132			
F	151-190				
G	191-250				
H	251-340				
I	341<				

Threshold: Flats: D; Houses: A

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