Sustainability in Real Estate

22 November 2022
Agenda

01 Opening
   ▶ Petr Karel (BCC Sustainability Working Group, Chairman)
   ▶ Alice Machová (EY, Partner, Climate Change and Sustainability Services)

02 Sustainable Trends in Real Estate: How to achieve energy and material independence and self-sufficiency
   ▶ Petr Vogel (EkoWATT, CZGBC Board Secretary)
   ▶ Massimo Bettanin (EY, Partner, Climate Change and Sustainability Services)

03 Real Estate Case Studies and Panel Discussion
   ▶ William Bucknell (Flow East, Managing Director)
   ▶ Miroslav Kobera (Skanska Residential, Green Business Manager)
   ▶ Rudolf Vacek (Penta Real Estate, Development Director)

04 ESG Strategy: New reporting requirements CSRĐ and EU taxonomy
   ▶ Alice Machová (EY, Partner, Climate Change and Sustainability Services)
   ▶ Petra Hajná (CPI, Sustainability Officer)

05 Green Finance in Sustainable Development
   Financing Instruments for Green Buildings
      ▶ Matúš Půll (Česká sporitele, Chief Sustainability Officer)
   Public and Private Subsidies, Green Bonds
      ▶ Martin Veverka (EY, Senior Consultant)
      ▶ Filip Šípek (EY, Senior Manager)
Petr Karel
BCC Sustainability Working Group
Chairman
Sustainability in Real Estate

22 November 2022

WELCOME

Petr KAREL, London Market, Chairman of BCC Sustainability Working Group
Sustainability Working Group

Focus Areas (based on Members voting)

CIRCULAR ECONOMY - SUSTAINABLE TRANSPORT – GREEN BUILDINGS – ENERGY TRANSITION – GREEN FINANCE

Events and Actions:

Conferences/ workshops covering areas selected by members:

- Best practice sharing for Business
- Independent views of experts
- Recommendations for discussion with Government

Main Partners
Sustainability Working Group
2021 - 2022

Green Growth Conference, 23/3/2021
CZ + UK Government, World Bank, Business Academia

Sustainability Working Group Kick-off 12/10/2021

COP 26 + Circular Economy 8/12/2021
UK Government, Tesco, M&S, ČS..

Sustainable Mobility 5/4/2022
ČEZ, PRE, Land Rover, Škoda, Toyota, GE, Eurowag, EY, BMW

ESG in Real Estate 22/11/2022

Round table with Minister Síkela
February 2023
• In 2021 about **17.5%** of global CO$_2$ emissions resulted from the generation of electricity and heat/cooling used in buildings.

• Additional **5%** related to the manufacture of cement, steel and aluminium used for buildings construction.

• **The buildings sector is therefore responsible directly and indirectly for around 23% of global energy and process-related CO$_2$ emissions.**

• In 2021 direct and indirect emissions from buildings operation rebounded to about 10 Gt, or 2% higher than in 2019 and about 5% higher than 2020.

• To align with the Net Zero Scenario, carbon emissions from buildings operations need to more than halve by 2030.
CO₂ emissions from the buildings sector in the Net Zero Scenario, 2010-2030

Annual investment in energy efficiency in the buildings sector in the Net Zero Scenario, 2017-2030
Thank you!
Any questions?

Petr Karel
Alice Machová
EY, Partner, Climate Change and Sustainability Services
Climate Change and Sustainability Services (CCaSS) and EY Sustainability

Local presence with global reach

EY’s sustainability and ESG services and solutions across Assurance | Consulting | Tax | Strategy and Transactions | Sector | Industry | Area | Region

► Why EY?

What we do

Our Climate Change and Sustainability Services (CCaSS) practice helps clients to build more sustainable and profitable enterprises by addressing their environmental and social challenges. We provide Environment, Social, Governance and Sustainability advisory and assurance services designed to manage risk, reduce cost, spur innovation and achieve measurable results.

Did you know...

**20+**

EY has worked in sustainability for over 20 years, with a dedicated, stand-alone service line for over 10, serving large, global companies across sectors.

**1,800+ 50+**

Today, we have over 1,800 specialists in 50 countries fully dedicated to helping EY’s clients navigate climate change and sustainability issues, 50+ in the Czech Republic.

**500+**

Over 500 companies have been analyzed on EY’s Climate Risk Barometer, a tool that helps to assess companies’ responses to climate risk from their public disclosures.

**TCFD**

EY played a key role in the development of the TCFD as one of the project managers.

CCaSS named Enablon’s “Partner of the Year”

EY received the “Partner of the Year” award from Wolters Kluwer’s Enablon, a leading provider of Environmental, Health and Safety (EHS), Risk, and Sustainability Management Software. The award distinguishes EY as the 2019 leading services provider and is a recognition of the CCaSS commitment to providing cutting-edge EHS digital services.

#1 Sustainability advisor

In an independent survey of global corporate sustainability leaders conducted by Verdantix, EY was named the #1 company with the strongest perceived capabilities to advise on global sustainability strategy.
As EY, we’ve dedicated our firm to become carbon negative in 2021 and net zero in 2025

We became the first of the “Big Four” organisations to be carbon neutral in 2020 (globally, across our entire carbon footprint) and have now increased our ambition go further to ensure we play our part in helping protect and preserve the planet.

We are committing to a 40% reduction in our absolute emissions and then every year removing or offsetting more than the remainder. From 2021 onwards, we will be removing more carbon from the atmosphere than we emit and be carbon negative. A big statement but one that we in EY are committed to.

EY’s transformation to carbon negative is coupled with a focus on supporting our clients with their ambitions for our planet.

We believe that sustainability is both good for business and good for the planet, offering opportunity to create and protect value.

EY’s ambition to be carbon negative in 2021 and net zero in 2025

Taking action to protect the planet is core to our purpose of building a better working world and one of the ways we create long term value for our people, clients and society.

Our focus on becoming a more sustainable organisation includes:

1. Setting a Science Based Target and reducing our total emissions up to 40% by FY25 (across all three emission scopes)
2. Reducing business travel emissions by 35% by FY25 against an FY19 baseline
3. Including emissions created from EY people working at home in our carbon calculations
4. Using 100% renewable energy for office electricity by FY25
5. Working with our suppliers on a requirement for 75% of them to set Science Based Target for emissions reduction by 2025
6. Investing in services to help clients decarbonize and deliver on sustainability plans
Sustainable Trends in Real Estate
How to achieve energy and material independence and self-sufficiency
Petr Vogel
EkoWATT, CZGBC Board Secretary
Sustainable Trends in Real Estate
Energy independence?

Ing. Petr Vogel
Partner EkoWATT
Board Secretary Czech Green Building Council
petr.vogel@ekowatt.cz

LEED Accredited Professional BD+C, ID+C
BREEAM Accredited Professional
DGNB Consultant
SBToolCZ konzultant
Sustainable trends in the Czech Real Estate
Professional investors and owners

1. Market demand (new-build: offices, industrial, retail, rented residential)
2. Corporate responsibility (ESG)

EU Taxonomy

Third party certifications
PRIVATE INVESTORS AND OWNERS

1. Obligatory standards – Energy certificate (new-build: residential)
2. Incentive programs (new-build + existing: residential + public)
Net – zero and beyond: is it possible?
CHRONOLOGY TO GET TO NET ZERO

1. Shape + building skin

Source: Prof. Cody TU Graz Form Follows Energy
2. High efficient technology – Heat pumps (compressor units)

Source: IEA Increase in heat pumps sales in selected regions, 2021 relative to 2020

Source: Daikin + TRANE
3. On-site and community based renewables

4. Last step: Green electricity and carbon offsets
Thank you! Please ask...

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petr.vogel@ekowatt.cz
Thank you!
Please ask...

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Sustainability in Real Estate
Massimo Bettanin
EY, Partner, Climate Change and Sustainability Services
Materiality assessment

Real Estate & Construction sector case study

November 2022
ESG

ESG refers to the three main factors in measuring sustainability / ethical impact of an investment

**E**
Reduce the impact on natural environment
- Resource use
- GHG emissions
- Air emissions
- Wastewater effluent
- Waste management
- Soil/groundwater contamination
- Biodiversity
- Public nuisance

**S**
Improve the impact on social environment
- Occupational health and safety
- Labor relationship
- Local communities
- Diversity agenda
- Product responsibility
- Privacy and data security

**G**
Ensure transparency and fairness
- Board diversity
- Anti-bribery and anticorruption
- Anti-money laundering
- Business ethics
- Compensation policies
- Lobbying and political contrib.
## Key ESG data for the RE Sector

<table>
<thead>
<tr>
<th>Environment</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10 Gt</strong></td>
<td><strong>269 Fatalities</strong></td>
</tr>
<tr>
<td>of CO\textsubscript{2eq} are emitted by RE Sector and 3.4Gt by the manufacturing of construction materials - 40% of total energy-related GHG</td>
<td>in construction sites representing up to 8% of total number of fatal incident in EU (3,408)</td>
</tr>
<tr>
<td><strong>839 Mt</strong></td>
<td><strong>37%</strong></td>
</tr>
<tr>
<td>of waste are produced by the EU Construction sector (35.9% of total waste) and 38.5% is landfilled</td>
<td>of EU companies surveyed in the Construction section reported “Corruption” as material issue for doing business</td>
</tr>
<tr>
<td><strong>539 km\textsuperscript{2}/year</strong></td>
<td><strong>25%</strong></td>
</tr>
<tr>
<td>of land taken by the RE sector between 2012 and 2018 in EU</td>
<td>of RE workers received training, which is lower than the average for EU (35%) and 26% of women and 11% of men have a female boss</td>
</tr>
</tbody>
</table>

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GAV Construction: 676 Bln (5%)

GAV Real Estate: 1,300 Bln (11%)

Employees RE and Const.: 12.8 Mil (6.6%)
Materiality according to GRI and SASB

**GRI**

<table>
<thead>
<tr>
<th>Identify and assess impacts on an ongoing basis</th>
<th>Determine material topics for reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the organization’s context</td>
<td>Test the material topics with experts and information users</td>
</tr>
<tr>
<td>Identify actual and potential impacts</td>
<td>Prioritize the most significant impacts for reporting</td>
</tr>
<tr>
<td>Assess the significance of the impacts</td>
<td>Test the material topics against the topics in the Sector Standards</td>
</tr>
</tbody>
</table>

1. Use the Sector Standards to understand the sectors’ context
2. Consider the topics and impacts described in the Sector Standards

**SASB**

- 2021 Standards changed the materiality approach in order to minimize biases and incorrect interpretations by removing the ‘influence on stakeholders’ standalone factor.

- The GRI Universal Standards 2021 focuses on organizations' impacts on the economy, environment, and people.

- SASB Standards identify the sustainability information that is financially material. This information designed for companies whose primary objective is to improve economic decisions.

- The SASB Standards vary by industry based on the different sustainability risks and opportunities within an industry.
Materiality and Double Materiality

Recent changes in the regulatory context underline the need for a more robust materiality assessment

**FINANCIAL MATERIALITY**

To the extent necessary for an understanding of the company’s development, performance and position...

**ENVIRONMENTAL & SOCIAL MATERIALITY**

...and impact of its activities

Primary audience: INVESTORS

Primary audience: CONSUMERS, CIVIL SOCIETY, EMPLOYEES, INVESTORS

**RECOMMENDATIONS OF THE TCFD**

**NON-FINANCIAL REPORTING DIRECTIVE**

* Financial materiality is used here in the broad sense of affecting the value of the company, not just in the sense of affecting financial measures recognised in the financial statements.
Methodology and steps in our materiality assessment

A methodology based on GRI’s four-step process for determining materiality

1. Understanding the context
   - ESG trends that affect the RE and construction sector/industry
   - Actual and emerging regulatory requirements applicable to the business
   - Relevant stakeholders
   - Competitors positioning

2. Identifying actual and potential impacts
   - Activities, services and products which generate or could potentially generate E&S impacts across the value chain

3. Assessing the significance of the impacts

4. Prioritizing the most significant impacts
   - Topic 1...
   - Topic 2...
   - Topic 3...
   - ...

Determine material topics

Review of relevant literature
- Analysis of applicable regulations/standards
- Engage with the company’s stakeholders
- Benchmarking of company’s peers

Environmental & Social Materiality

...and impact of its activities

Primary audiences:
- Consumers
- Civil Society
- Employees
- Investors

EY
Sustainability in Real Estate
### Methodology and steps in our materiality assessment

**The results of the ‘impacts’ prioritization process**

#### ESG Aspects

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</tr>
</thead>
<tbody>
<tr>
<td>Customer H&amp;S / Wellness</td>
<td>1.5</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
<td>2</td>
<td>2</td>
<td>12</td>
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<tr>
<td>Local Communities</td>
<td>1.5</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>11.5</td>
</tr>
<tr>
<td>GHG emissions</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
<td>2</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Material/resource efficiency</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>9.5</td>
</tr>
<tr>
<td>Occupational H&amp;S</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
<td>1.5</td>
<td>5</td>
<td>0.5</td>
<td>9</td>
<td>9.5</td>
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<tr>
<td>Climate Change Adaptation</td>
<td>2</td>
<td></td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>0.5</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>1.5</td>
<td></td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>0.5</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Corruption</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
Methodology and steps in our materiality assessment (cont’)

The material topics

Identifying and assessing impacts
1. Understanding the context
2. Identifying actual and potential impacts
3. Assessing the significance of the impacts

Determine material topics
4. Prioritizing the most significant impacts
  - Topic 1...
  - Topic 2...
  - Topic 3...
  - ...

**ESG Aspects**
- Customer H&S / Wellness: 12
- Local Communities: 11.5
- GHG emissions: 11
- Material/resource efficiency: 9.5
- Occupational H&S: 9.5
- Climate Change Adaptation: 9
- Biodiversity: 9
- Corruption: 9

**Total Scoring**

ESG aspects which align with the business values and business strategy

ESG aspects that have ‘material’ financial effects, value creation and/or value erosion in the short, medium and long term

Impact on cashflows, capital
Impact of key natural and social resources on the business model
Methodology and steps in our materiality assessment (cont’)

*Impact materiality and financial materiality are inter-related*

- Material topics
- Financial materiality
RE is characterized by significant (positive and negative) ESG impacts. Adopting a sustainability strategy can aid a real estate company in reviewing its progress and lowering the risks related to the environment, society and economy.

Materiality assessment help to focus a company’s efforts on what matters and make decisions-making process, their actions and reporting more effective and efficient.
Thank you for your attention.

Any questions?

Massimo Bettanin
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Sustainability in Real Estate
Real Estate Case Studies and Panel Discussion
William Bucknell
Flow East, Managing Director
Sustainability in Real Estate
William Bucknell MRICS
Managing Director Real Estate
ABOUT FLOW EAST

• PROPERTY DEVELOPMENT AND INVESTMENT COMPANY
• FOCUSED ON PRIME REAL ESTATE IN CZECHIA SINCE 1990
• ACTIVE IN CZECHIA, UK, SPAIN and EXPANDING
• LONG TERM HOLDER OF PROPERTIES
• SUSTAINABILITY ALWAYS BEEN FOCUS
• NEW INVESTMENTS IN SOLAR ENERGY
PORTFOLIO

The Flow Building, Wenceslas Square 47
The Forum, Václavské náměstí 19
Richtrův dům, Malé náměstí 11
Ericsson Palace – Malé náměstí 1

U Kapra, Malé náměstí 14
Jindřišská 17
Kříženská 52
Mánesova 47

Mošekův 12
Dům V Templu, Celetná 27
Kubelíkova 32
The Villa U Vodlíčků

Hotel Jalta
Can Vistabella Ibiza
Hostal Sunset Ibiza
Auto Park Čestlice

Big Box Čestlice
Slatap
Big Box Home: Počernice

Sustainability in Real Estate
THE FLOW BUILDING

- LANDMARK DEVELOPMENT
- 21ST CENTURY DESIGN
- LATEST TECHNOLOGY
- NO GAS
- SMART BUILDING
- REDUCE ENERGY CONSUMPTION
- ORIGINAL TARGET BREEAM VG
- IMPROVE ENVIRONMENT
COMMUNAL TERRACE

NO PLANT ON THE ROOF BIRD & BUG BOXES

LOCAL MATERIALS

TRIPLE GLAZED INTELLIGENT FAÇADE WITH ADVANCED SOLAR SHADING

OPENABLE WINDOWS

AIR SOURCE HEAT PUMP TECHNOLOGY CROSS FLOOR HEAT RECUPERATION

Sustainability in Real Estate
INTERNAL

AUTO LED LIGHTING
SMART AC & VENTILATION

ENERGY EFFICIENT VERTICAL
TRANSPORTATION SYSTEMS

MIST SPRINKLER
SYSTEM

INTELLIGENT BMS

ENERGY CHARGING
STATIONS

CYCLE FACILITIES

GREEN WALL

FLOW ZONE
OUTCOME

- BREEAM OUTSTANDING
- 100% LEASED
- 50% LESS ENERGY
- HAPPY TENANTS
- IMPROVED LOCAL AREA
- LESSONS LEARNT NOW BEING ROLLED OUT
THE FLOW BUILDING
Thank you for your attention.

Any questions?

William Bucknell
Flow East, Managing Director
Skanska Residential Development

Miroslav Kobera
Green Business Manager

Sustainability in Real Estate
Skanska & Sustainable Development

1. Circular Economy & Bluegreen Infrastructure
2. Skanska Climate Goal
3. Longtime Value
Circular Economy

• 31% of recycled water

• 20% of recycled concrete in construction
  • (used demolition waste – bricks, concrete)

• 93% of recycled construction waste
  • from used materials on site
1. Circular Economy & Bluegreen Infrastructure

- Green Roofs
- Bike lanes
- Composters
- Photothermal & PV panels
- Recovery of heat from air & grey water
- Grey water system – flushing toilets & washing machines
- Waste recycling
- Accumulation of rainwater
- Electro&Eco mobility

Modřanský cukrovar
700+ residential units
Skanska Climate Goal – „Net Zero“ in 2045
Skanska Group carbon emissions (Scope 1 & 2)

-54%*

Absolute carbon reduction

- Group Scope 2
- Group Scope 1
- 70% target line
- Targeted Emission Reduction
- Intensity (total emissions/MSEK revenue)

Scope 1: direct emissions from owned or controlled sources
Scope 2: indirect emissions from the generation of purchased energy

* Results are preliminary pending external assurance
Carbon emissions in our value chain

- Material production 53%
- Construction operations 11%

Usage 36%

47% Energy Consumption

35% Building Materials
10% Renovations
5% Construction
Skanska way towards sustainable future

- Solar Thermal Panels (2012)
- BREEAM Certification (2015)
- Grey Water System (2016)
- Rebetong (recycled concrete) (2019)
- Low-emission Concrete (2020)
- CO2 methodics (2021)
- Cross Laminated Timber (2024)
- Photovoltaic Panels (2022)
3. Long Time Value
3. Long Time Value

Radlický Dřevák
177 residential units

Modřanský cukrovar
700+ residential units
Contacts, Q&A

Thank you!

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Rudolf Vacek
Penta Real Estate, Development Director
The British Chamber of Commerce, Czech Green Building Council and EY

Sustainability in Real Estate

Rudolf Vacek
22/11/2022
General approach

„Sustainability from beginning“

- LEED Platinum/Gold since 2011;
- ESG Strategy since 2022;
Masaryčka

„Best practice and innovations within big scale“

• Water management – rain water retention and adiabatic humidification left water collection – reusing for irrigation and WC flushing
  160 m3 / 2 weeks capacity

• Energy management – fully automated building with total monitoring – automatic adapting on current conditions

• Public participation – public inputs - newly designed front square, street and top terrace opened to public; approx. 70 new trees
Nová Waltrovka

“...best practice and innovations within big scale“

- Water management – rain water retention – reusing for irrigation and WC flushing 500 m³ / 4 weeks capacity

- Energy management – fully automated building with total monitoring – automatic adapting on current conditions; FTE panels (600 m²) – 90% lighting power capacity

- Public participation – public inputs - competition of elementary school students of public spaces and equipment, furniture, approx. 700 new trees;
Contacts, Q&A

Thank you!

Rudolf Vacek

Sustainability in Real Estate
ESG Strategy: New reporting requirements CSRD and EU taxonomy
ESG Strategy, CSRD and EU Taxonomy
 ► Sustainability is accelerating rapidly
 ► Moving from nice to have to must have
 ► More has happened in the last 10 minutes than in the last 10 years combined
Czech Republic: a minimum baseline emerging

Market Drivers
- Government Regulation (EU and National)
- Institutional Investment Community
- Physical Climate Change impacts
- Consumers and Society

Strategic Engagement with Sustainability
- Product design
- Supply chain
- Consumer engagement

Level of engagement by corporates

Compliance Focused
- Reporting
- Taxes

Operationally Focused
- Water, energy use
- Raw materials, waste

Environmental baseline for companies in the Czech Republic

No focus

2022

2025
EU’s Roadmap to Climate Neutrality Goals

The goal (Paris agreement): keep average global temperature increase to well below 2°C, ideally 1.5°C

Pledges and National plans  2020  Binding legislature, mechanisms and toolkits to achieve the goals

2015  2020  2021  2030  2050

Paris Agreement under the UN Framework Convention on Climate change
EU Green Deal adopted incl. EU taxonomy and 2030 Climate Target plan
EU „Fit for 55“ By 2030 Legislation and mechanism to achieve EU Green Deal
55% cut greenhouse gas emissions 32% share for renewable energy
Net-Zero Greenhouse Emissions
S&P ESG Sector Risk Atlas

## ESG and Real Estate sector

<table>
<thead>
<tr>
<th>Key ESG Factors of Real Estate Sector</th>
<th>SASB Real Estate Sector Material Issues</th>
</tr>
</thead>
</table>
| **Waste and pollution**<br>Building construction is energy intensive and generates substantial waste and pollution. As such, property developers and homebuilders are more exposed to risks from waste and pollution than real estate operators. | ► Energy Management  
► Water Management  
► Management of Tenant Sustainability Impacts  
► Climate Change Adaptation |
| **Governance structure**<br>About 20% of issuers are controlled by private-equity firms, family-owned businesses, or concentrated ownership structures that lack board independence or pursue aggressive financial policies or shareholder returns that are credit negative. | Source: Materiality Finder - SASB |
| **Risk management, culture and oversight**<br>For nearly one-third of companies in the sector, are governance shortcomings in their ability to mitigate risks and adapt strategies to changing market conditions in a manner that aligns with their capabilities. | |

Source: S&P Global Ratings: ESG Credit Indicator Report Card: Real Estate
Corporate Sustainability Reporting Directive (CSRD)

New directive extends the reporting obligations under the current Non-financial Reporting Directive (NFRD)

Scope of covered companies

- All large undertakings exceeding at least two of the following:
  1. a balance sheet total of EUR 20 mil;
  2. a net turnover of EUR 40 mil;
  3. and 250 employees on average over the year
- All listed companies on an EU regulated market (inclusion of SMEs under discussion)
- In total 49,000 companies (from 11,700 under NFRD)

Scope of reporting requirements

- Extended general and ESG-specific disclosure areas
- Detailed disclosure for each area (incl. forward-looking strategies, qualitative & quantitative info., targets etc.)
- Double materiality concept for topics prioritisation
- New binding European sustainability reporting standards (ESRS)

Verification of disclosure

Mandatory limited level of assurance (compliance with CSRD requirements)

Location of reports

Must be included in consolidated management report (financial and non-financial info) and in digital form

Timing of applicability

Timescale currently under discussion:

- 2024 for undertakings already subject to the NFRD (reporting in 2025, 2024 data);
- 2025 for large undertakings not currently subject to the NFRD (reporting in 2026, 2025 data)
- 2026 for listed SMEs, as well as for small and non-complex credit institutions and for captive insurance undertakings (reporting in 2027, 2026 data)
European Sustainability Reporting Standards (ESRS)
Initial drafts have been published for individual disclosure areas and general concepts

Uniform set of reporting standards developed by a team (PTF-ESRS) under European Financial Reporting Advisory Group (EFRAG).

Current status:
☑ Approved by The Commission will adopt the first set of standards by June 2023 common to all companies (for sector specific standards - expected June 2024)

LESS INFORMATION & KPIs then in the first draft: the number of Disclosure Requirements has been reduced from 136 to 84 and the number of quantitative and qualitative datapoints has been reduced from 2,161 to 1,144.

General disclosure and concepts
- General provisions
- Strategy & business model
- Sustainability governance & organisation
- Sustainability material impacts, risks & opport.
- Policies, targets, action plans and resources

Environmental disclosure (5)
- Climate change
- Pollution
- Water & marine resources
- Biodiversity & ecosystems
- Circular economy

Social disclosure (7)
- Own workforce - general; working conditions; equal opportunities; other work-related rights
- Workers in the value chain
- Affected communities
- Consumers/End-users

Goverance disclosure (3)
- Business Conduct
## European Sustainability Reporting Standards (ESRS)

**Example of requirements for selected environmental topics**

### CLIMATE CHANGE

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Implementation</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy &amp; business model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Transition plan in line with the Paris Agreement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Resilience of the strategy and business model to climate-related transition and physical risks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Climate-related targets and KPIs in relation to compensation schemes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Internal carbon pricing schemes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impacts, risks &amp; opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Processes to identify material climate-related impacts, risks &amp; opp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Material climate-related impacts, risks and opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Policies implemented to manage climate change mitigation and adaptation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Targets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Measurable targets for climate change mitigation and adaptation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Climate change mitigation and adaptation action plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Resources allocated to climate change mitigation and adaptation actions plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Energy consumption and energy mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Energy intensity per revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHG emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Scope 1, Scope 2, Scope 3 and total GHG emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- <em>Optional</em>: GHG removals; GHG offsets; Avoided GHG emissions from products and services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- GHG intensity per revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Taxonomy Regulation for climate change mitigation &amp; adaptation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Financial exposure to climate risks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- <em>Optional</em>: Financial opp. related to climate change (not in Taxonomy)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EU Taxonomy for sustainable activities

EU Taxonomy in context of the overarching EU ESG strategy

Taxonomy is one of the 10 concrete actions of the EU Action Plan on Financing Sustainable Growth, which helps to meet the objectives of the Green Deal for Europe.

Taxonomy for Sustainable Activities is a European regulatory classification system and transparency tool defining which economic activities can be considered sustainable, with the aim of promoting sustainable investment and preventing greenwashing.

The classification system sets criteria in accordance with 6 environmental objectives

- Climate change mitigation
- Climate change adaptation
- Transition to circular economy, waste prevention and recycling
- Sustainable use and protection of water and marine resources
- Prevention of pollution
- Biodiversity conservation and restoration and ecosystems

- Under the Taxonomy Regulation, a company subject to the Non-Financial Reporting Directive (NFRD) will have to disclose the proportion of economic activities that are taxonomically aligned as environmentally sustainable.
- To be considered sustainable, activities must be aligned with the following three elements:

  - Make a significant contribution to at least one of the 6 objectives
  - Cause no significant harm to any of the other 5 objectives
  - Comply with minimum social guarantees

  Environmentally sustainable activity
The most relevant economic activities for real estate:

- Construction of new buildings (primary energy demand at least 10% below the threshold set for low-energy buildings)
- Renovation of existing buildings (energy savings of 30% or in line with the EU Building Directive)
- Acquisition and ownership of buildings (acquired building has to have low energy demand - top 15% of national or regional stock)
- Individual measures (investments in building insulation, photovoltaic systems etc)

Energy performance is defined by Energy Performance Certificate (EPC). Using an EPC, you can rate a property's energy efficiency from A (the most efficient) to G (the least efficient), and this rating is valid for ten years.
EU taxonomy application example

Accion eligibility EU case study

### Activities covered by the Taxonomy

<table>
<thead>
<tr>
<th>Activities</th>
<th>Revenues (M€)</th>
<th>% Revenues</th>
<th>EBITDA (M€)</th>
<th>% EBITDA</th>
<th>Capex (M€)</th>
<th>% CAPEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity, gas, steam and air conditioning supply</td>
<td>2,520</td>
<td>35</td>
<td>840</td>
<td>73</td>
<td>560</td>
<td>87</td>
</tr>
<tr>
<td>Production of electricity from wind power</td>
<td>1,330</td>
<td>19</td>
<td>605</td>
<td>53</td>
<td>460</td>
<td>72</td>
</tr>
<tr>
<td>Production of electricity from solar PV</td>
<td>495</td>
<td>7</td>
<td>80</td>
<td>7</td>
<td>79</td>
<td>12</td>
</tr>
<tr>
<td>Production of electricity from hydropower</td>
<td>390</td>
<td>5</td>
<td>92</td>
<td>8</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Production of electricity from Concentrated Solar Power</td>
<td>155</td>
<td>2</td>
<td>42</td>
<td>4</td>
<td>2.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Production of electricity from bioenergy</td>
<td>150</td>
<td>2</td>
<td>22</td>
<td>2</td>
<td>0.5</td>
<td>0.07</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>1,960</td>
<td>27</td>
<td>184</td>
<td>16</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>Infrastructure for low carbon transport</td>
<td>1,960</td>
<td>27</td>
<td>185</td>
<td>16</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Passenger cars and commercial vehicles</td>
<td>0.4</td>
<td>0.01</td>
<td>-1</td>
<td>-0.1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Water supply, sewerage, waste management and remediation</td>
<td>407</td>
<td>6</td>
<td>18</td>
<td>1.5</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>Centralized Wastewater treatment systems</td>
<td>177</td>
<td>2.5</td>
<td>-2</td>
<td>-0.2</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Water collection &amp; treatment and supply</td>
<td>161</td>
<td>2.5</td>
<td>12</td>
<td>1</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>Separate collection &amp; transport of non-hazardous waste in source-segregated fractions</td>
<td>68</td>
<td>1</td>
<td>8</td>
<td>0.7</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Construction and Real Estate activities</td>
<td>50</td>
<td>0.7</td>
<td>10</td>
<td>0.9</td>
<td>5</td>
<td>0.8</td>
</tr>
<tr>
<td>Construction of new buildings</td>
<td>43</td>
<td>0.6</td>
<td>5.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Individual renovation measures, installation of renewables on-site and professional, scientific and technical activities</td>
<td>6.5</td>
<td>0.1</td>
<td>4.5</td>
<td>0.4</td>
<td>4.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>15</td>
<td>0.2</td>
<td>2.5</td>
<td>0.2</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Growing of perennial crops</td>
<td>15</td>
<td>0.2</td>
<td>2.5</td>
<td>0.2</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4,350M€</strong></td>
<td>*<strong>69 %</strong></td>
<td><strong>1,050M€</strong></td>
<td>*<strong>22 %</strong></td>
<td><strong>630M€</strong></td>
<td>*<strong>99 %</strong></td>
</tr>
</tbody>
</table>

Source: EU LOW CARBON TAXONOMY: ACCIONA’S CASE STUDY
The EY ESG Suite is the path to an Environmental, Social and Governance (ESG) readiness assessment for the ESRS framework.

## Solution - EY ESG Suite

The EY ESG Suite is a comprehensive tool EY leverages to facilitate an ESG readiness assessment, based on the relevant sustainability frameworks for companies. The EY ESG Suite will be updated as and when EFRAG revises the ESRS, which is expected to be every three years. Additional frameworks (e.g., ISSB or TCFD) can be added for comparison.

<table>
<thead>
<tr>
<th>Customized landscape</th>
<th>A fully customized application that facilitates an individual overview to meet your goals and requirements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards</td>
<td>An overview and separate listing of current relevant sustainability standards provided in one place (e.g., ESRS, ISSB, GRI, TCFD, etc.).</td>
</tr>
<tr>
<td>Assessment</td>
<td>An engagement leveraging the EY ESG Suite includes a (high level) readiness, a materiality and a (deep dive) gap assessment.</td>
</tr>
<tr>
<td>Roadmap and KPIs</td>
<td>A roadmap is generated to assist you with your next steps. Your KPIs can be observed in a dashboard output.</td>
</tr>
</tbody>
</table>
EY CAP is the global digital asset leveraged by EY engagement teams in the delivery of the climate-related risks assessments.

Value proposition: On-demand delivery of granular physical and transition climate-related financial and non-financial reporting, disclosure and analyses for corporates to:
- meet regulatory obligations (EU Taxonomy, CSRD, CBAM, etc.) and requirements from regulators (TCFD, NGFS, etc.)
- optimally future-proof their assets and activity in light of climate change impacts.

**Physical risk module**
GIS acute and chronic physical risk and vulnerability model
*Data sources: IPCC, WRI, ESA, ESGF data*

**Transition risk module**
General Equilibrium model including market & policy financial impacts
*Data sources: NGFS data, GTAP, EY proprietary CGE model*
Implications for the real estate sector
Proposed requirements bring new opportunities and risks to the real estate sector

Opportunities

► Get a better overview of sustainability of own operations, cost savings (energy, waste etc.) and incorporate long-term sustainability risks into decision-making
► Future proof assets to climate shocks and stressors, enhance resiliency, and reduce climate change-related risk.
► Putting together plans to increase health and wellness, and safety.
► Increased pool of financing and better conditions

Risks

► Increased emphasis on proper data governance and systems to process complex ESG information
► Additional administrative costs requiring timely preparation and collection of data under the CSRD
► Mandatory assurance of reports leading to greater scrutiny of companies to ensure disclosure of accurate data and meeting set targets
► Increased pressure on energy efficiency, obsolescence of the buildings that do not fit the criteria
Contacts, Q&A

Thank you!
Any questions?

Alice Machova
Partner, Assurance, FAAS, FAAS Financial&AccountingAdv
+420 731 627 086
alice.machova@cz.ey.com
ESG at CPI Property Group
CPIPG is dedicated to high sustainability standards

Significant investments in green buildings and energy efficiency improvements. CPIPG has set performance targets for its greenhouse gas production and water consumption by the end of 2030, and recently increased the level of ambition of its GHG intensity target to be in line with Paris Agreement goals. The Group has also set a target to switch to 100% renewable energy purchases by 2024.

CPIPG has over 4,000 employees and fosters an inclusive and diverse culture. In a 2021 survey, 97% of our employees indicated they were proud to work for CPIPG. We pride ourselves on having an inclusive, family business-oriented corporate culture despite our size and geographic diversity.

CPIPG’s Code of Ethics, established in 2019, together with our Group policies, sets basic standards of conduct for all employees and agents. All policies were reviewed by Dentons in 2018/2019 and are available on our website.

CPIPG actively supports green mobility. The Group supports green mobility by actively promoting cycling, access to public transport and clean modes of transportation for tenants and employees. E-vehicle charging points increased by 35% in 2021 with plans for further expansion in the future. We have set a target to replace our corporate vehicle fleet in the CR with plug-in hybrids by 2024.

CPIPG has a continuous dialogue with tenants, employees, investors, and members of local communities and is involved in a wide range of community engagement initiatives and charitable activities. This is supervised and directed by the Board of Directors.

CPIPG follows the X Principles of Governance published by the Luxembourg Stock Exchange and is listed on the Frankfurt Stock Exchange. Significant improvements have been made since 2019 to continually improve Board independence and internal policies.

* https://www.bourse.lu/corporate-governance
CPIPG’s ESG journey

**2017–2018**
- Investment grade ratings achieved with S&P and Moody’s
- Establishes EMTN programme
- CPIPG becomes an established issuer on international debt capital markets

**2018**
- Appointment of a group sustainability officer
- Sustainability agenda / target-setting commences
- Environmental partnership with UCEEB
- First ESG rating from Sustainalytics

**2019**
- Board of Directors establishes a separate CSR Committee
- Increased Board and Board committee independence
- Environmental partnership with UCEEB
- First ESG rating from Sustainalytics
- Investment grade ratings achieved with S&P and Moody’s
- Establishes EMTN programme
- CPIPG becomes an established issuer on international debt capital markets

**2020**
- CPIPG issues debut green bond €750 m
- CPIPG joins the Czech Green Building Council
- New CSR policies
- CPIPG joins the Polish Green Building Council
- Partnership with CI2, a regional partner of CDP
- CPIPG reports on climate change in CDP for the first time
- Energy Management System implementation starts
- CPIPG joins New Green Deal Declaration
- CPIPG issues three more green bonds: £350 m, €750 m, HUF 30 bn

**2021**
- CPIPG issues sustainable finance framework
- CPIPG issues first sustainability-linked bond
- Environmental targets validated by SBTi
- Certification of Energy Management System, ISO 50001
- CPIPG joins the Polish Green Building Council
- Environmental Targets submitted for validation by SBTi

**2022**
- CPIPG revises its environmental strategy
- Environmental targets submitted for validation by SBTi
Climate change targets are becoming more ambitious

Industry / regulation-led tightening of environmental targets

<table>
<thead>
<tr>
<th>2020 climate and energy package</th>
<th>2030 climate and energy framework</th>
<th>2050 long-term strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 20% cut in GHGs (vs. 1990 levels)</td>
<td>• Min. 55% cuts in GHGs (vs. 1990 levels)</td>
<td>• Climate-neutral EU by 2050</td>
</tr>
<tr>
<td>• 20% of EU energy from renewables</td>
<td></td>
<td>• European Green Deal (January 2020)</td>
</tr>
<tr>
<td>• 20% energy efficiency improvement</td>
<td></td>
<td>• EU Taxonomy – Sustainable Finance</td>
</tr>
</tbody>
</table>

Guidance for CPIPG’s GHG target

SCIENCE BASED TARGETS

Sustainability in Real Estate
CPIPG’s environmental commitment

- CPIPG tightened its environmental targets for the future – in August 2022, the Group announced its commitment to reduce greenhouse gas (“GHG”) emissions intensity by 32.4% by 2030 across all emissions scopes 1-3 (up from the previous target of 20% set in 2019 and 30% set in 2021) and also to;

- Transition all electricity purchased by the Group to 100% renewable sources by 2024.

- Intensity is calculated as total GHG emissions (t CO2e) divided by GLA of property portfolio (m2)
Measures to tackle climate change

- Switching electricity from fossil fuel to renewable sources
- Operating efficiency improvements
- Tenant involvement and cooperation
- Energy efficient CAPEX
- New developments complying with net zero energy buildings regulations

CPIPG energy mix of buildings in use

<table>
<thead>
<tr>
<th>Year</th>
<th>Heat</th>
<th>Electricity</th>
<th>Fuels</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>30%</td>
<td>54%</td>
<td>16%</td>
</tr>
<tr>
<td>2021</td>
<td>28%</td>
<td>53%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Sustainability in Real Estate
**Part of a small group of multi-currency issuers**

**Strong position among European corporate green bond issuers**
Ranking by volume issued (€ billion)

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Volume (€ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENEL</td>
<td>11.1</td>
</tr>
<tr>
<td>TENET</td>
<td>11.1</td>
</tr>
<tr>
<td>IBERDROLA</td>
<td>9.4</td>
</tr>
<tr>
<td>POIDS</td>
<td>8.0</td>
</tr>
<tr>
<td>ENGIE</td>
<td>6.0</td>
</tr>
<tr>
<td>SCHAEFFLER</td>
<td>5.2</td>
</tr>
<tr>
<td>Vasakronan</td>
<td>4.3</td>
</tr>
<tr>
<td>E.ON</td>
<td>3.8</td>
</tr>
<tr>
<td>ENEL</td>
<td>3.5</td>
</tr>
<tr>
<td>Paprec</td>
<td>3.5</td>
</tr>
<tr>
<td>Ørsted</td>
<td>3.2</td>
</tr>
<tr>
<td>NORDEX</td>
<td>2.8</td>
</tr>
<tr>
<td>SCHAEFFLER</td>
<td>2.5</td>
</tr>
<tr>
<td>WindMW</td>
<td>2.4</td>
</tr>
<tr>
<td>Terna</td>
<td>2.3</td>
</tr>
<tr>
<td>MANN+HUMMEL</td>
<td>2.2</td>
</tr>
<tr>
<td>CPI</td>
<td>2.0 billion</td>
</tr>
<tr>
<td>VW</td>
<td>2.0</td>
</tr>
<tr>
<td>EnBW</td>
<td>2.0</td>
</tr>
<tr>
<td>NXP</td>
<td>1.8</td>
</tr>
<tr>
<td>ENGIE</td>
<td>2.0</td>
</tr>
<tr>
<td>EDF</td>
<td>2.4</td>
</tr>
<tr>
<td>E.ON</td>
<td>2.3</td>
</tr>
<tr>
<td>CPI</td>
<td>1.4 billion</td>
</tr>
<tr>
<td>NXP</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**Part of a small group of multi-currency issuers**

- **Top 20 among all European issuers**
- **#1 among CEE issuers**
- **#2 among European real estate issuers**

Source: Bloomberg, as of 28th September 2020
Greenbond framework and second-party opinion

- Framework includes eligible categories:
  - Green buildings
  - Energy efficiency project
  - Renewable energy
  - Sustainable management of living natural resources and land use

- Second-Party Opinion

- Bond Issuance
Green Bond allocation as at March 2022

**Split by eligible assets categories**
- **Certified green buildings**: €1,708.1 m (86.9%)
- **Energy efficiency projects**: €3.7 m (0.2%)
- **Sustainable farming assets**: €102.5 m (5.7%)
- **Renewable energy assets**: €145 m (7.4%)
- **Total**: €1,965 million

**Split by issuance**
- **EUR Green Bond, April 2027**: €732.5 m (37.3%)
- **GBP Green Bond, January 2028**: €88.5 m (4.5%)
- **EUR Green Bond, May 2026**: €735.9 m (37.5%)
- **GBP Green Bond, January 2028**: €408.0 m (20.8%)
- **Total**: €1,965 million

Certified green buildings: 0.3%
Energy efficiency projects: 0.2%
Sustainable farming assets: 5.7%
Renewable energy assets: 7.4%
Qualifying equity investments: 0.2%

Sustainability in Real Estate
Reporting - GHG emissions across scopes

GHG footprints are categorised into three different scopes: 1, 2, and 3 – 2021 figures

**Scope 1**
Direct emissions we have control over e.g. fuel, refrigerants in owned/operated assets

**Scope 2**
Indirect emissions we have control over e.g. electricity and district heating

**Scope 3**
All other emissions that are out of CPIPG’s operational control e.g. owned premises operated by tenants

Direct control

Limited control
• Building in operations January-February for the previous year
• Data gathered: general information, financial data, green certification
• **EU Taxonomy data:**
  • EPC data
  • Climate risks
  • Green lease/memorandum
  • Asbestos, Hazardous chemicals
• **Annual consumption data:**
  • Fuel
  • Electricity
  • Heat
  • Water
  • Refrigerants
  • Waste
## EPRA Environmental Performance Indicators by Asset Type

### Energy

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Office</th>
<th>Shopping centers</th>
<th>Retail</th>
<th>Residential</th>
<th>Hotels</th>
<th>Logistics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------</td>
<td>--------</td>
<td>-----------------</td>
<td>--------</td>
<td>------------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
</tr>
</tbody>
</table>

### Water

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Office</th>
<th>Shopping centers</th>
<th>Retail</th>
<th>Residential</th>
<th>Hotels</th>
<th>Logistics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------</td>
<td>--------</td>
<td>-----------------</td>
<td>--------</td>
<td>------------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
</tr>
</tbody>
</table>

### Certifications

- Green Building Council Australia
- LEED
- BREEAM

### EPRA Environmental Performance Indicators by Geography

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Office</th>
<th>Shopping centers</th>
<th>Retail</th>
<th>Residential</th>
<th>Hotels</th>
<th>Logistics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------</td>
<td>--------</td>
<td>-----------------</td>
<td>--------</td>
<td>------------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
</tr>
</tbody>
</table>

### Sustainability in Real Estate

Due to disparities in operational characteristics, EPRA environmental disclosures reported below relate only to built assets in operation, which comprise the majority of the Group’s assets. Ski resorts (Cazaux-Martres) and farms (Snupen family farm) are reported separately.
### EU Taxonomy – Eligibility 2021 and Alignment 2022

#### Turnover

<table>
<thead>
<tr>
<th></th>
<th>FY 2021</th>
<th>H1 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€ million</td>
<td>%</td>
</tr>
<tr>
<td>Total eligible activities</td>
<td>618.4</td>
<td>93.2%</td>
</tr>
<tr>
<td>Total non-eligible activities</td>
<td>25.4</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total Group activities</td>
<td>663.8</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### CapEx

<table>
<thead>
<tr>
<th></th>
<th>FY 2021</th>
<th>H1 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€ million</td>
<td>%</td>
</tr>
<tr>
<td>Total eligible activities</td>
<td>189.2</td>
<td>79.0%</td>
</tr>
<tr>
<td>Total non-eligible activities</td>
<td>28.9</td>
<td>21.0%</td>
</tr>
<tr>
<td>Total Group activities</td>
<td>218.1</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### OpEx

<table>
<thead>
<tr>
<th></th>
<th>FY 2021</th>
<th>H1 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€ million</td>
<td>%</td>
</tr>
<tr>
<td>Total eligible activities</td>
<td>89.5</td>
<td>81.9%</td>
</tr>
<tr>
<td>Total non-eligible activities</td>
<td>19.8</td>
<td>18.1%</td>
</tr>
<tr>
<td>Total Group activities</td>
<td>109.3</td>
<td>100%</td>
</tr>
</tbody>
</table>
Contacts, Q&A

Thank you!

Petra Hajná
Sustainability Officer
p.hajna@cpipg.com
Green Finance in Sustainable Development
Matúš Púll
Česká spořitelna, Chief Sustainability Officer
Financing Green Buildings

Matúš Púll
Chief Sustainability Officer
Česká spořitelna a.s.

22 November 2022
Global Sustainable Bond Market

Source: Climate Bonds Initiative climetebonds.net

Sustainability in Real Estate
European Green Bonds – Buildings second largest

Energy, Buildings, and Transport remained the three largest UoP categories, collectively contributing 81% to the total volume.

This is nevertheless a drop versus the record 85% in 2020.

NB: We do not yet have comprehensive UoP breakdowns for Social and Sustainability bonds.

Source: Climate Bonds Initiative climetebonds.net
## Sustainable Finance Structures

### Activity vs. Behavior

<table>
<thead>
<tr>
<th></th>
<th>Activity-based financing</th>
<th>Behavior-based financing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of proceeds</strong></td>
<td>Pre-defined – (preferably EU Taxonomy)</td>
<td>No definition for use of proceeds required</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Same as for conventional instrument</td>
<td>Sustainable performance target(s) linked to interest level</td>
</tr>
<tr>
<td><strong>Pricing Rationale</strong></td>
<td>Same as for conventional instrument</td>
<td>One-way or two-way pricing mechanism incorporated</td>
</tr>
<tr>
<td><strong>Verification (bonds)</strong></td>
<td>Recommended (via Second Party Opinion)</td>
<td>Required (e.g. in form of compliance certificate)</td>
</tr>
<tr>
<td><strong>Review (bonds)</strong></td>
<td>Recommended (allocation &amp; impact reporting)</td>
<td>Required</td>
</tr>
<tr>
<td><strong>Prerequisite</strong></td>
<td>None</td>
<td>Sustainability strategy or ESG Rating</td>
</tr>
</tbody>
</table>

**Sustainability in Real Estate**
## Sustainable Issues – Czech Republic

<table>
<thead>
<tr>
<th>Issuer (alphabetical order)</th>
<th>Bond Issue</th>
<th>Moody’s / S&amp;P / Fitch</th>
<th>Amount Issued (EUR)</th>
<th>Coupon (%)</th>
<th>Maturity</th>
<th>ESG Instrument</th>
<th>SPO Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESKA SPORITELNA AS</td>
<td>CESSPO 0 1/2 09/13/28</td>
<td>-/A-/A</td>
<td>500,000,000</td>
<td>0.500%</td>
<td>13.09.2028</td>
<td>Green bond</td>
<td>ISS ESG</td>
</tr>
<tr>
<td>CEZ AS</td>
<td>CEZCP 2 3/8 04/06/27</td>
<td>Baa1/A-/</td>
<td>600,000,000</td>
<td>2.375%</td>
<td>06.04.2027</td>
<td>Sustainability-linked bond</td>
<td>ISS ESG</td>
</tr>
<tr>
<td>CPI PROPERTY GROUP SA</td>
<td>CIPGPR 2 3/4 05/12/26</td>
<td>Baa2/BBB *-/</td>
<td>750,000,000</td>
<td>2.750%</td>
<td>12.05.2026</td>
<td>Sustainability-linked bond</td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>CPI PROPERTY GROUP SA</td>
<td>CIPGPR 1 5/8 04/23/27</td>
<td>Baa2/BBB *-/</td>
<td>750,000,000</td>
<td>1.625%</td>
<td>23.04.2027</td>
<td>Green bond</td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>CPI PROPERTY GROUP SA</td>
<td>CIPGPR 1 3/4 01/14/30</td>
<td>Baa2/BBB *-/</td>
<td>700,000,000</td>
<td>1.750%</td>
<td>14.01.2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 0 5/8 11/27/23</td>
<td>Baa3/BBB/-</td>
<td>400,000,000</td>
<td>0.625%</td>
<td>27.11.2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 0 1/2 06/21/25</td>
<td>Baa3/BBB/-</td>
<td>500,000,000</td>
<td>0.500%</td>
<td>21.06.2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 2 1/8 10/01/25</td>
<td>Baa3/BBB/-</td>
<td>650,000,000</td>
<td>2.125%</td>
<td>01.10.2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 0 7/8 01/20/26</td>
<td>Baa3/BBB/-</td>
<td>700,000,000</td>
<td>0.875%</td>
<td>20.01.2026</td>
<td></td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 0 5/8 09/27/26</td>
<td>Baa3/BBB/-</td>
<td>500,000,000</td>
<td>0.625%</td>
<td>27.09.2026</td>
<td></td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 0 3/4 02/18/27</td>
<td>Baa3/BBB/-</td>
<td>500,000,000</td>
<td>0.750%</td>
<td>18.02.2027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 1 1/4 06/21/29</td>
<td>Baa3/BBB/-</td>
<td>500,000,000</td>
<td>1.250%</td>
<td>21.06.2029</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTP NV</td>
<td>CTPNV 1 1/2 09/27/31</td>
<td>Baa3/BBB/-</td>
<td>549,500,000</td>
<td>1.500%</td>
<td>27.09.2031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CZECH GAS NETWORKS INV</td>
<td>CZGRID 0.45 09/08/29</td>
<td>-/BBB+/BBB+</td>
<td>500,000,000</td>
<td>0.450%</td>
<td>08.09.2029</td>
<td>Green bond</td>
<td>ISS ESG</td>
</tr>
<tr>
<td>RAIFFEISENBANK AS</td>
<td>RABKAS 1 06/09/28</td>
<td>Baa2/-</td>
<td>350,000,000</td>
<td>1.000%</td>
<td>09.06.2028</td>
<td>Green bond</td>
<td>ISS ESG</td>
</tr>
</tbody>
</table>

*Source: Bloomberg as of September 13, 2022*
Considerations

Loan or Bond?
• Bond from €500 million

Greenium
• Bond 10% of margin
• Loan – competition decreases price

Greenium dwindles for euro corporate bonds in 2021

Green bonds become less scarce with record issuance, eroding premium investors have to pay

Note: Negative value means green bonds offer lower yield, or ‘greenium’, relative to conventional equivalents
Source: Association for Financial Markets in Europe | Chart: Yoruk Bahceli, Reuters
EU Taxonomy criteria

Activity shall qualify as environmentally sustainable if:

- **contributes substantially to one** or more of the environmental **objectives**
- **does not significantly harm** any of the environmental objectives (DNSH)
- complies with **technical screening criteria**
- is carried out in compliance with the **minimum social safeguards**

Disclaimer: This is an opinion only, not a recommendation.
Construction of new buildings

Substantial contribution to climate change mitigation:
• The Primary Energy Demand (PED) is **10 % lower than nearly zero-energy building**
• The energy performance is certified using an as built Energy Performance Certificate (EPC).

**Nearly zero-energy building** – Decree (vyhláška) No. 264/2020 - reference building (referenční budova)

**Verification:**
• EPC class A – not more than 80% of PED of a reference building
• Others – compare reference (EPC protocoll part I) and calculated PED

**Challenges:**
• Annually increasing requirements for NZEB
• EPBD 4 – carbon neutral buildings by 2030
Construction of new buildings

Buildings larger than 5000 m²:

• testing for air-tightness and thermal integrity
• life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle
  • BREEAM
  • UCEEB and University of Chemistry and Technology
Do not significantly harm

Expert assessment recommended

- Climate Change Mitigation – only flood data widely available
- Circular economy – waste reuse and recycling; circular designs and techniques; adaptability; standardization
- Water – water flow limits, construction site
- Pollution prevention – harmful substances - document specification
- Biodiversity – EIA; protected areas; arable land
Acquisition and ownership of buildings

- built before 31 December 2020 – EPC class A or top 15% of the national or regional building stock expressed as operational Primary Energy Demand and at least distinguishes between residential and non-residential buildings
- Build after 31 December 2020 – same as new buildings
- Large non-residential buildings (heating, ventilation, A/C above 290 kW) it is efficiently operated through energy performance monitoring and assessment

Challenge:
- No assessment of top 15% available
## Sustainability-linked financing – Environmental KPIs

<table>
<thead>
<tr>
<th>KPI</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency</td>
<td>Improvements in the energy efficiency rating of building(s) owned or leased by the borrower. Improvements in energy efficiency can relate to in-use performance and/or the fabric of the building(s).</td>
</tr>
<tr>
<td>Greenhouse gas emissions</td>
<td>Reductions in greenhouse gas emissions associated with the building(s) or development being financed.</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>Reductions in liquid and solid waste disposals in relation to the building(s) or development being financed.</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>Increases in the amount of renewable energy generated or used by the borrower and/or in relation to the building(s) being financed.</td>
</tr>
<tr>
<td>Water consumption</td>
<td>Water savings made by the borrower and/or in relation to the building(s) being financed.</td>
</tr>
<tr>
<td>Sustainable sourcing</td>
<td>Increases in the use of verified sustainable raw materials/supplies in the construction or refurbishment of building(s) or development being financed.</td>
</tr>
<tr>
<td>Circular economy</td>
<td>Increases in recycling rates or use of recycled raw materials / supplies.</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>Improvements in conservation and protection of biodiversity, and contribution to biodiversity/ biodiversity net gain.</td>
</tr>
<tr>
<td>Global ESG assessment</td>
<td>Improvements in the borrower’s ESG rating and/or achievement of a recognised ESG certification.</td>
</tr>
<tr>
<td>Embodied carbon</td>
<td>Reductions in embodied carbon associated with the development being financed.</td>
</tr>
<tr>
<td>Clean transportation</td>
<td>Improvements in the use of low carbon transport and the related infrastructure, including electric vehicle charging points and dedicated bicycle spaces.</td>
</tr>
</tbody>
</table>
## Sustainability-linked financing – S and G KPIs

### Social

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable housing</td>
<td>Increases in the number of affordable housing units developed by the borrower.</td>
</tr>
<tr>
<td>Gender pay gap metrics</td>
<td>Improvements in gender pay gap metrics.</td>
</tr>
<tr>
<td>Community and social engagement</td>
<td>Improvements in community and social engagement.</td>
</tr>
<tr>
<td>Employee engagement, diversity and inclusion</td>
<td>Improvements in specific long-term goals relating to improvements in diversity and training and further education.</td>
</tr>
</tbody>
</table>

### Governance

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building strong corporate governance &amp; transparency</td>
<td>Improvements in expertise of individuals sitting on the borrower’s governance committees, e.g. audit committee, compensation committee, compliance committee and so forth.</td>
</tr>
</tbody>
</table>
What next

• Market standard – ČBA, CzGBC
• Sector cooperation
• Legislation – EPC availability
• Top 15% energy efficient buildings – EPBD 4
Contacts, Q&A

Thank you for your attention.
Any questions?

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+420 956 765 964
MPull@csas.cz

Sustainability in Real Estate
Martin Veverka
EY, Senior Consultant
Agenda

1. Environmental rehabilitation (OPE)
2. Brownfields (RRP, SISF)
3. Photovoltaic power systems (RRP, MOFU, OPTAC, NGS)
4. Public lighting (EFEKT)
5. New apartment buildings (NGS)
6. Hot water preparation, solar heating (NGS)
7. Controlled ventilation systems with heat recovery (NGS)
8. Storage tanks for rainwater retention, wastewater recovery (NGS)
9. Outdoor shading technology (NGS)

Martin Veverka
Senior consultant Government & Public Sector
+420 730 191 873
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Abbreviations

AIS MPO - Agenda information system of the Ministry of Industry and Trade (Agendový informační systém Ministerstva průmyslu a obchodu)

BEEC - Building Energy Efficiency Certificate (PENB - Průkaz energetické náročnosti budovy)

CR - Czech Republic

EKIS - Energy consultation and Information center

IS KP21+ - Information System of Final Beneficiaries (Informační systém koncového příjemce)

M-EKIS - Mobile Energy consultation and Information center

MOFU - Modernisation Fund

NGS - New Green Savings Programme

OPE - Operational Programme Environment

OPTAC - Operational Programme Technology and applications for competitiveness

PVPS - Photovoltaic power systems

RRP - Recovery and Resilience Plan

SISF - State Investment Support Fund

SMEs - Small and Medium-sized Enterprises
Environmental Rehabilitation

Programme management
- Managing Authority: Ministry of Environment
- Intermediary Body: State Environmental Fund of the CR
- Supervision: Monitoring Committee
- Selection Committee

Supported activities
- Removal of contamination from environmental components
  - Underground or surface water, sediments, rock environment or soil air
  - Based on Risk Analysis
- Removal, encapsulation, immobilization or elimination of contamination in the given matrix
- Removal of the focus of contamination, including building construction or technology
- Geological work, rehabilitation and decontamination methods in-situ, on-site and ex-site (or a combination thereof)
- Mining or remedial pumping or lowering of the groundwater level
- Continuous sampling and analytical work
- Necessary construction or demolition work, transport and removal of excess waste, reclamation locations etc.

OPE Operational Programme Environment
Specific Objective 1.6 - Nature and Pollution
Call 15 - Rehabilitation of sites with environmental burden
Submission of applications:
07. 09. 2022 - 18. 01. 2023

Sustainability in Real Estate
Environmental Rehabilitation

Eligible applicants
- Public Sector
- Interest groups of legal persons
- Commercial companies and cooperatives
- Unit owners association, Owners association

Submission of applications
- Via the Information System of Final Beneficiaries (IS KP21+)
- Required to submit the application for the Statement of the Ministry of Environment by 30. 11. 2022 at the latest

Conditions
- OPE 2021-2027 Programming Document
- Rules for applicants and beneficiaries in the Environment Operational Program 2021-2027
- Call 15 - Rehabilitation of sites with environmental burden

Extent of funding & place of implementation
- Place of implementation: territory of CR
- Grant allocation: 1,200,000.00 CZK
- Minimal eligible project costs: 1,000,000.00 CZK

<table>
<thead>
<tr>
<th>Supported activities</th>
<th>Extent of funding*</th>
<th>Years of sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Rehabilitation of an old ecological burden</td>
<td>85 %</td>
<td>10</td>
</tr>
<tr>
<td>2) Environmental rehabilitation of a brownfield for the purpose of industrial or logistics area construction</td>
<td>70 %</td>
<td>5</td>
</tr>
<tr>
<td>3) Environmental rehabilitation of a brownfield for the purpose of residential construction</td>
<td>50 %</td>
<td>5</td>
</tr>
<tr>
<td>4) Rehabilitation of an old landfill</td>
<td>85 %</td>
<td>5</td>
</tr>
</tbody>
</table>

* % of the total eligible project costs

Requested documentation and technical attachments
- Statement of the Department of Environmental Risks and Ecological Damage of Ministry of Environment
- Documents proving that the applicant did not cause the given environmental burden and that the originator of the burden or his legal successor does not exist or is unknown
- Planning Decision or planning approval or combined planning and building permit
- Project documentation including budget
- Risk Analysis
- Feasibility Study (mandatory for activities 1-3)
- Land valuation

Submission of applications: 07. 09. 2022 - 18. 01. 2023
### RRP Recovery and Resilience Plan

**Component 2.8.3**

**Call 1** - Environmental rehabilitation of brownfields for commercial utilization programme

**Call 2** - Environmental rehabilitation of brownfields for non-commercial utilization programme

**Submission of applications:**
- Call 1: 19. 07. 2022 - 23. 09. 2022
- Call 2: 01. 08. 2022 - 31. 10. 2022

<table>
<thead>
<tr>
<th><strong>Supported activities</strong></th>
<th><strong>RRP</strong></th>
<th><strong>SISF</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Renovation of buildings to achieve energy savings</td>
<td></td>
<td>Revitalization and creating civic space and services - parks, buildings for education, culture, sport, social services, public services etc.</td>
</tr>
<tr>
<td>Demolition and construction of energy-efficient buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ineligible costs: demolition / demolition with infrastructure building</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Eligible applicants</strong></th>
<th><strong>RRP</strong></th>
<th><strong>SISF</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipalities (LAU 2) and regions (NUTS 3) in CR</td>
<td></td>
<td>Call 1: Territorial self-governing units located in Karlovy Vary Region, Moravian-Silesian Region and Olomouc Region</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call 2: Territorial self-governing units located outside Karlovy Vary Region, Moravian-Silesian Region and Usti nad Labem Region</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Extent of support &amp; place of implementation</strong></th>
<th><strong>RRP</strong></th>
<th><strong>SISF</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of funding: grant</td>
<td></td>
<td>Form of funding: subsidies and/or loan</td>
</tr>
<tr>
<td>Amount of support per project: 1,000,000.00-40,000,000.00 CZK</td>
<td></td>
<td>Allocation for Call 1: 200,000,000.00 CZK</td>
</tr>
<tr>
<td>Maximum of 100 % of the total eligible project costs</td>
<td></td>
<td>Allocation for Call 2: 300,000,000.00 CZK</td>
</tr>
<tr>
<td>At least 10 % of the total project costs must be financed from other sources</td>
<td></td>
<td>Amount of support per project: 400,000.00-50,000,000.00 CZK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beneficiary's own contribution: at least 10% of the total eligible project costs</td>
</tr>
</tbody>
</table>

**Conditions and Attachments to the call and the programme**: [Link to Handbook for applicants for support in the programme of Environmental rehabilitation of brownfields](#)
### Photovoltaic power systems (PVPS)

#### RRP Recovery and resilience plan

**Component 2.3**

**Call 1 - Photovoltaic power systems with/without accumulation (?)**

**Submission of applications:**

22.03.2022 - 30.11.2023

#### MOFU Modernisation Fund

**RES+ programme**

**Call 1/2022 - Photovoltaic power systems to 1 MWp**

**Submission of applications:**

10.08.2022 - 15.03.2023

#### OPTAC Operational Programme

**Technology and applications for competitiveness**

**To be specified**

#### NGS New Green Savings Programme

**Submission of applications:**

12.10.2021 - 30.06.2025

<table>
<thead>
<tr>
<th>Supported activities</th>
<th>RRP</th>
<th>MOFU</th>
<th>OPTAC</th>
<th>NGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photovoltaic power systems:</td>
<td>PVPS on the roofs for one supply point</td>
<td>PVPS on the ground, brownfields, partly on the roofs for more than one supply point</td>
<td>PVPS on the roofs for one supply point after the RRP funds are exhausted</td>
<td>New PVPS supplying electricity to common spaces of residential buildings and apartment units, to water heating or charging of electric vehicles of residents</td>
</tr>
<tr>
<td>Accumulation systems:</td>
<td>Territory of CR: 35 %</td>
<td>Territory of CR excluding Prague: 50 %</td>
<td>Territory of CR excluding Prague: 50 % of the eligible costs</td>
<td>Territory of CR excluding Prague: Extent of support to be specified</td>
</tr>
<tr>
<td></td>
<td>Territory of CR excluding Prague: 45 %</td>
<td></td>
<td></td>
<td>Territory of CR</td>
</tr>
<tr>
<td>Eligible applicants</td>
<td>SMEs and Large Enterprises</td>
<td>SMEs and Large Enterprises</td>
<td>SMEs and Large Enterprises</td>
<td>Owners of existing apartment buildings</td>
</tr>
<tr>
<td></td>
<td>European Cooperative Society</td>
<td>Current or future holders of a license to do business in the energy sectors</td>
<td></td>
<td>Unit owners association (in case of existing apartment buildings)</td>
</tr>
<tr>
<td></td>
<td>European Company</td>
<td></td>
<td></td>
<td>Authorized owners of apartment units (excluding new buildings)</td>
</tr>
<tr>
<td></td>
<td>European Economic Interest Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of support &amp; place of implementation</td>
<td>Photovoltaic power systems:</td>
<td>Territory of CR: 35 %</td>
<td>Territory of CR excluding Prague: 50 % of the eligible costs</td>
<td>Territory of CR</td>
</tr>
<tr>
<td></td>
<td>Accumulation systems:</td>
<td></td>
<td></td>
<td>Sum of unit amounts of support:</td>
</tr>
<tr>
<td></td>
<td>Territory of CR excluding Prague: 45 %</td>
<td></td>
<td></td>
<td>For 1 kWp of installed power – 15,000.00 CZK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For 1 kWh of electric storage system – 10,000.00 CZK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For a residential unit connected to the PVPS – 5,000.00 CZK</td>
</tr>
<tr>
<td>Funding</td>
<td>Ex-post</td>
<td>Ex-post</td>
<td>Ex-post</td>
<td>Ex-post</td>
</tr>
<tr>
<td>Procurement</td>
<td>Not mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Not mandatory</td>
</tr>
<tr>
<td>Mandatory technical attachments to the application</td>
<td>Assessment of the PVPS parameters</td>
<td>Distribution Agreement</td>
<td>To be specified</td>
<td>PENB (BEEC – Building Energy Efficiency Certificate)</td>
</tr>
<tr>
<td></td>
<td>Distribution Agreement</td>
<td>Project documentation</td>
<td></td>
<td>Project documentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy assessment</td>
<td></td>
<td>Expert opinion</td>
</tr>
</tbody>
</table>

**Page 125**

**Sustainability in Real Estate**
Public lighting

| EFEKT State energy savings support programme EFEKT III for 2022-2027
| Axis 2 - Consulting
| **Call 1/2023** - Energy consultation and information centers
| Submission of applications:
| 18. 10. 2022 - 30. 11. 2022

**Support axes in EFEKT III**

- Axis 1 Pre-project preparation
- **Axis 2 Consulting**
  - Creation of Energy consultation and information center (EKIS) and Mobile Energy consultation and information center (M-EKIS)
  - Advisory and consulting services in the field of increasing energy efficiency
  - Promoting the individual and national benefits of energy-saving projects for citizens, public administration representatives and entrepreneurs
- Axis 3 Education
- Axis 4 Energy management and concepts
- Axis 5 Pilot projects
Public lighting

Eligible applicants
- Entrepreneurs
- Public sector
- Non-governmental non-profit organizations
- Corporations

Submission of applications
- Via the Agenda information system of the Ministry of Industry and Trade (AIS MPO)
- One-year subsidy for the eligible period: 1.1.2023 - 31.12.2023
- Ex-ante funding

Conditions
- Call 1/2023 - Energy consultation and information centers
- Conditions for drawing a non-investment subsidy
- Rules for the activity of the Energy Consultation and Information Centers EKIS and M-EKIS 2023

Supported activities
- The EKIS consultation center consists of 3-6 advisers approved by the subsidy provider
- Consulting is provided by energy consultants who demonstrate professional competence
- Outputs of consulting activities are:
  - Personal consultation
  - Online (video) consultation
  - i-EKIS (web) consultation
  - Subsidy assistance – Proposal of energy measures
  - Consultation on Community Energy

Extent of funding & place of implementation
- Place of implementation: territory of CR
- Allocation per call: 32,000,000.00 CZK
- Maximum amount of subvention: 400,000.00 CZK per project
  - Maximum of 100 % of the eligible cost

Requested documentation and technical attachments
- Consent of the founder/owner to the implementation of the event (if relevant)
- Confirmation from the Tax Office about the absence of tax arrears
- Confirmation from the District Social Security Administration
- Confirmation of health insurance companies to which the applicant has obligations, on the absence of tax arrears (if relevant)
- Affidavits (generated automatically in AIS MPO)
- Copies of documents on professional education of consultants and documents on obtained authorizations according to Act No. 406/2000 Coll.
- List of EKIS center consultants
- Detailed map of EKIS location; photo of the building of the EKIS consultancy/office

Submission of applications: 18.10.2022 - 30.11.2022
New Green Savings Programme

Programme management
► Managing Authority: Ministry of Environment
► Intermediary Body: State Environmental Fund of the CR

Supported activities
► Reducing the energy consumption of apartment buildings (through insulation)
► Construction or purchase of apartment buildings with very low energy consumption
► Energy sources
  ► Replacement of non-environmental heat sources with heat pumps, boilers or local biomass sources
  ► Solar thermal and photovoltaic power systems
  ► Controlled ventilation systems with heat recovery (recuperation)
  ► Hot water preparation, solar heating
  ► Use of heat from wastewater
► Adaptation and mitigation measures in response to ongoing climate change
  ► Planting of trees on publicly accessible land near residential buildings
  ► Outdoor shading technology
  ► Storage tanks for rainwater retention, wastewater recovery
  ► Green roofs
  ► Purchase and installation of charging stations for electric vehicles
► Project support & bonus for combining multiple measures

Submission of applications: 12. 10. 2021 - 30. 06. 2025
Via the Agenda information system of the State environment fund (AIS SFZP)
Binding Instructions for applicants and recipients of New Green Savings program support within the National Recovery Plan
New apartment buildings

- **Supported activity**
  - Construction of an apartment building with very low energy consumption
  - Purchase of an apartment in a new building with very low energy consumption
  - Reconstruction of an existing building into a passive building

- **Eligible applicants**
  - Builder of an apartment building (in case of a construction subsidy)
  - A buyer who purchased an apartment from the first owner (builder) within 24 months of the completion of the building (with the subsidy for the purchase of an apartment)
  - Contributory organizations established by territorial self-governing units

- **Extent of funding & place of implementation**
  - 150,000.00 CZK per apartment unit
  - Ex-post funding
  - Territory of CR
  - Necessary condition: meeting the parameters of the building with very low energy consumption

- **Technical attachments**
  - Expert statement
  - If relevant:
    - Consent statement of co-owners of the property
    - Preliminary agreement, reservation agreement, or similar written agreement
    - PENB (BEEC – Building Energy Efficiency Certificate)
Energy sources

Controlled ventilation systems with heat recovery (recuperation)

- Supported activity
  - Acquisition and installation of a new controlled ventilation system with heat recovery, including their accessories and connections
    - Centralized systems of controlled ventilation with heat recovery
    - Decentralized systems of controlled ventilation with heat recovery

- Eligible applicants
  - Owners of an existing apartment building
  - Unit owners association (in case of existing apartment buildings)
  - Authorized owners of apartment units (excluding new buildings)
  - Contributory organizations established by territorial self-governing units

- Extent of funding & place of implementation
  - Fixed amount for each connected apartment unit:
    - Controlled ventilation with heat recovery / centralized - 35,000 CZK/b.j.
    - Controlled ventilation with heat recovery / decentralized - 25,000 CZK/b.j.
  - Ex-post funding

- Technical attachements
  - Expert statement
  - If relevant: PENB (BEEC – Building Energy Efficiency Certificate)

Hot water preparation, solar heating

- Supported activity
  - Acquisition and installation of a new system for the preparation of hot water using solar panels or a heat pump

- Eligible applicants
  - Owners of an existing apartment building
  - Unit owners association (in case of existing apartment buildings)
  - Authorized owners of apartment units (excluding new buildings)
  - Contributory organizations established by territorial self-governing units

- Extent of funding & place of implementation
  - Solar thermal water heating with additional heating - 13,000 CZK/kW
  - Solar photovoltaic water heating - 13,000 CZK/kW
  - Heat pump with electrical drive for water heating - 20,000 CZK/kW
  - Ex-post funding

- Technical attachements
  - Expert statement
  - If relevant: PENB (BEEC – Building Energy Efficiency Certificate)
Adaptation and mitigation measures in response to ongoing climate change

Storage tanks for rainwater retention, wastewater recovery

- **Supported activity**
  - Rainwater for watering the garden (support only for existing apartment buildings)
  - Rainwater as service (for flushing) and watering
  - Waste (grey) water as service water (for flushing) and for watering
  - Waste (grey) water combined with rainwater (two tanks)

- **Eligible applicants**
  - Owners of an existing apartment building, buyers of a new apartment building
  - Builders of an apartment building,
  - Authorized owners of apartment units
  - Unit owners association (in case of existing apartment buildings)
  - Contributory organizations established by territorial self-governing units

- **Extent of funding & place of implementation**
  - According to the formula specified in the [binding instructions for applicants and recipients of support](https://example.com)
  - The total amount of support depends on the type of system, the size of the tank and the number of connected housing units
  - Ex-post funding

- **Technical attachments**
  - Expert statement
  - If relevant: preliminary agreement, documents proving the discussion of the project with the sewage operator

Outdoor shading technology

- **Supported activity**
  - Subsidy for outdoor shading technology (blinds, etc.)
  - The system must be equipped with movable elements to adjust the shading level
  - Eligible only in combination with a subsidy for insulation

- **Eligible applicants**
  - Owners of an existing apartment building
  - Unit owners association (in case of existing apartment buildings)
  - Authorized owners of apartment units (excluding new buildings)
  - Contributory organizations established by territorial self-governing units

- **Extent of funding & place of implementation**
  - 1,500.00 CZK per m² of the opening filling area on which the shading system is installed
  - Ex-post funding

- **Technical attachments**
  - Expert statement
Thank you for your attention.
Any questions?

Martin Veverka
Senior consultant Government & Public Sector
+420 730 191 873
martin.veverka@cz.ey.com
Filip Sipek
EY, Senior Manager
Green bonds and ESG linked bonds - market trends & data

22nd November 2022
Global emission GtCO$_2$e in Real Estate

Real Estate has a significant share in energy consumption and emission GtCO$_2$e

<table>
<thead>
<tr>
<th>Global energy consumption</th>
<th>Source: Global Alliance for Buildings and Constraction, UN environment programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Construction of buildings</td>
<td>Non-residential buildings</td>
</tr>
</tbody>
</table>

1. The Real Estate sector is responsible for 38% of the global production of GtCO$_2$e emissions. In the European Union, the share of buildings in GtCO$_2$e emissions reaches 36% and has a share of 40% in energy consumption.

2. The Real Estate sector consumes 35% of the global energy. Of the total amount, 8% non-residential buildings, 22% residential buildings, 5% construction of buildings.
Green bonds in numbers

Green bonds issued globally grew from USD 37bn in 2014 to USD 517bn in 2021.

Real estate is the second largest use of proceeds category with 27% share in Europe (22% Globally).

Europe is leading region for green bonds, while Asia-Pacific region experienced highest annual growth in last two years.

In Real Estate, 66% of the proceeds are allocated to existing buildings and 34% utilized for development of new projects.

The green bond premium varies between -1 - 9 basis points and exists particularly for the government issued bonds that follow green bonds governance and reporting procedures.

![Development of green bonds issued for real estate sector](source: Climate Bonds Initiative)

### Green bonds market score card

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>Percent change YoY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of the market</td>
<td>EUR 298bn</td>
<td>USD 523bn</td>
<td>75%</td>
</tr>
<tr>
<td>Number of issuers</td>
<td>636</td>
<td>839</td>
<td>32%</td>
</tr>
<tr>
<td>Number of instruments</td>
<td>1,749</td>
<td>2,089</td>
<td>19%</td>
</tr>
<tr>
<td>Average size of the instruments</td>
<td>EUR 160m</td>
<td>EUR 240m</td>
<td>51%</td>
</tr>
<tr>
<td>Number of countries</td>
<td>56</td>
<td>58</td>
<td>4%</td>
</tr>
<tr>
<td>Number of currencies</td>
<td>34</td>
<td>33</td>
<td>(3%)</td>
</tr>
</tbody>
</table>
Green bonds - European overview

Total volume and amount of green bonds issued in Europe
Source: Climate Bonds Initiative

- The highest number of issuances of green bonds in Europe is in Sweden, and the highest volume of issued bonds is in Germany and France (both close to EUR 200bn).
- Concerning the real estate green bonds, the highest number of issuers is in Scandinavia, almost 50%.
- The most popular issuers by market size are medium cap companies (EUR 1 - 5 bn) followed with large cap (>EUR 5 bn).

Among the most popular projects finance by green bonds in the real estate market are:
- Green buildings,
- Energy efficiency,
- Renewable energy,
- Clean transportation

Issuances by sub-sectors within Real Estate
Source: EPRA

- Industrial and Office: 27%
- Diversified: 13%
- Industrial and Office: 14%
- Office: 18%
- Retail: 5%
- Residential: 23%
Green bonds and other ESG bonds

Share of green bonds H1 2022

- Sustainability bonds: 14%
- Green bonds: 72%
- Social bonds: 14%

Source: Climate Bonds Initiative

In 2021, issue volume of EUR ESG corporate bonds reached a new record high at EUR 124bn, corresponding to 27% of total EUR corporate bond primary market and representing an increase of around 150% by previous year.

1. **Green bonds**
   Green bond shows its commitment to exclusively use the funds raised to finance or re-finance green projects or assets. Have been the most common ESG financing instrument for a long time.

2. **Social Bonds**
   Social bonds are used to finance or refinance social projects or activities that achieve positive social outcomes and/or address a social issue.

3. **Sustainability bonds**
   To qualify as sustainably bonds, the proceeds must finance or refinance a combination of green and social projects.
Certification of environmental friendliness of buildings

Sustainability is a big topic in the construction industry, so the environmental friendliness of buildings is evaluated with various voluntary certifications.

The EU is currently working on a unifying scheme for building certification that would promote comparability of assessments.

1. **Certification LEED (USA)**
The LEED (Leadership in Energy and Environmental Design) rating system requires objective evidence that specific requirements have been met in the areas of building sustainability, water efficiency and other areas.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 49</td>
<td>Certified</td>
</tr>
<tr>
<td>50 - 59</td>
<td>Silver</td>
</tr>
<tr>
<td>60 - 79</td>
<td>Gold</td>
</tr>
<tr>
<td>80 +</td>
<td>Platinum</td>
</tr>
</tbody>
</table>

2. **Certification BREEAM from the BRE company (Great Britain)**
Today, BREEAM (Building Research Establishment Environmental Assessment Method) is based on European standards and assesses ten different categories that examine economic, social and environmental sustainability. For example, it evaluates the use of land, the pollution produced by the building, daylight in the building or the innovations used.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30 %</td>
<td>Unclassified</td>
</tr>
<tr>
<td>&gt; 30 %</td>
<td>Pass</td>
</tr>
<tr>
<td>&gt; 45 %</td>
<td>Good</td>
</tr>
<tr>
<td>&gt; 55 %</td>
<td>Very Good</td>
</tr>
<tr>
<td>&gt; 70 %</td>
<td>Excellent</td>
</tr>
<tr>
<td>&gt; 85 %</td>
<td>Outstanding</td>
</tr>
</tbody>
</table>

3. **Certification DGNB (Germany)**
The DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen - German Sustainable Building Council) certification is the second generation of certification systems. The certification system is divided between three pillars of environmental criteria, economic criteria and socio-cultural and functional criteria.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 % +</td>
<td>Platinum</td>
</tr>
<tr>
<td>65 % +</td>
<td>Gold</td>
</tr>
<tr>
<td>50 % +</td>
<td>Silver</td>
</tr>
<tr>
<td>35 %</td>
<td>Bronze</td>
</tr>
</tbody>
</table>
## Green bonds regulation

**Green Bond Principles – 4 core requirements:**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Use of proceeds</strong></td>
</tr>
<tr>
<td>2</td>
<td><strong>Process for evaluation and selection of investments</strong></td>
</tr>
<tr>
<td>3</td>
<td><strong>Management of proceeds</strong></td>
</tr>
<tr>
<td>4</td>
<td><strong>Reporting</strong></td>
</tr>
</tbody>
</table>
Trends in Green Bonds

Europe will continue to be the engine of green bonds growth

- European Union plans to issue ca. EUR 250bn in green bonds until 2026.
- As reported by PwC: green, social and sustainability bonds should form 50% of all issuance by 2026 and it could reach total EUR 1.6 trillion only in Europe.
- Many countries outside Europe are considering selling the green bonds in 2022, for example Colombia, Singapore and India.
- Green bonds issuance will be also encouraged by Climate initiative.

The main factors of growth

- As the all UN member states adopted 2030 Agenda for Sustainable Development, ESG topic awareness rise.
- Investor’s interest and demand for more green bonds shows a fundamental shifts in addressing ESG awareness.
- The latest trend is 50% YoY increase in the green market and it is expected to continue this trend of funds becoming more ESG.
- The EU is planning to issue green bonds under the NextGenerationEU.
### Credit rating process

#### Credit rating process support

<table>
<thead>
<tr>
<th>Financial model</th>
<th>Shadow credit rating</th>
<th>Formal credit rating</th>
</tr>
</thead>
</table>
| - The financial model should cover both financial and operational cashflows and need to allow for sensitivity and scenario analysis.  
- The specific outputs, ratios and parameters required and used by rating agencies need to be prepared and analyzed before their submission.  
- Credit rating agencies consider both historical and projected financials. | - Identification of any gaps in the “credit story” and corporate governance.  
- Enable you to implement any recommendations ahead of undertaking the formal ratings process.  
- Provide forward estimation of credit rating enabling you to assess the impact of your future decisions on credit rating. | - Formally engaging with the rating agencies.  
- Preparation of the materials (“Rating book”) in a form and style consistent with your preferences.  
- Development of the presentation strategy & coaching for rating agency meeting - rehearsal interviews.  
- Meetings with rating analysts.  
- Rating assessment decision. |

#### Timing
- **Financial model**: Timing depends on the availability of model
- **Shadow credit rating**: 3 - 5 weeks
- **Formal credit rating**: 5 - 8 weeks
Phase I: Financial Model

Considerations
- The financial model should cover both financial and operational cashflows and need to allow for sensitivity and scenario analysis.
- The specific outputs, ratios and parameters required and used by rating agencies needs to be prepared and analyzed before their submission.

Our approach
- We would build-up an overlay over your current financial model/system with a view to accessing its suitability for presenting to the credit rating agencies while utilizing specific credit rating methodologies.
- The financial model should forecast integrated financial statements of your group for the period of next 5 years on an annual basis.
- The intergroup relationship, especially related to loans, receivables, guarantees needs to be properly forecasted.

Typical structure of the financial model for credit rating

**Inputs**
- Operational assumptions
  - Forecasted economic data
  - Technical specification

**Calculations**
- Detailed operational model

**Outputs**
- Integrated financial statements
- P&L
- CF
- BS
- Technical outputs
- Rating
- Leverage ratios

**Project assumptions**
- Capital expenditures
- Fixed costs analysis
- Maintenance expenses
- Personnel expenses
- Depreciation
- Tax
- Working capital

**Sensitivity analysis**
- Predefined scenarios
- Possibility to extend for financing options module
Phase II & III: Shadow & Formal Credit Rating

**Shadow Credit Rating Simulation**

- In-depth analysis of business activities
  - Business and financial profile
  - Historic performance
  - Underlying trends
  - Stability and predictability of earnings/cash flows
  - Current strategy, business plans & underlying assumptions

- Qualitative analysis management views
  - Market dynamics and growth prospects
  - Competitive environment and market share
  - Regulatory environment
  - Political, economic and country risks
  - Core competencies

- Benchmarking rated companies
  - Identify comparable rated companies
  - Key financial ratios
  - Ratings indications on comparable entities
  - Identify relative strengths and weaknesses

- Presentation of findings
  - Business and financial profile
  - Historic performance
  - Underlying trends
  - Stability and predictability of earnings/cash flows
  - Current strategy, business plans & underlying assumptions

**Formal Credit Rating Process**

1. Formal engagement of the rating agencies
2. Preparation of agency submissions
3. Management preparation
4. Rating agency meeting
5. Rating agency analytical process and follow-up
6. Rating committee decision
7. Rating report
8. Press release
Rating agency criteria for REIT

<table>
<thead>
<tr>
<th>Rating factors</th>
<th>Weight</th>
<th>Sub-factors</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale</td>
<td>5%</td>
<td>Gross assets</td>
<td>5%</td>
</tr>
<tr>
<td>Business profile</td>
<td>25%</td>
<td>Market positioning and assets quality</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operating environment</td>
<td>10%</td>
</tr>
<tr>
<td>Liquidity and Access to capital</td>
<td>25%</td>
<td>Liquidity and access to capital</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unencumbered assets / Gross assets</td>
<td>10%</td>
</tr>
<tr>
<td>Leverage and coverage</td>
<td>45%</td>
<td>Total debt + Preferred Stock / Gross assets</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Net debt / EBITDA</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secured debt / Gross assets</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fixed charge coverage</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Thank you for your attention.

Any questions?

Filip Sipek
Senior Manager
Strategy and Transactions, TCF-Lead Advisory,
TCF-LA:PF Infrastructure Adv+420 731 627 130
filip.sipek@cz.ey.com
Thank you.
Any questions?
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