



ShowCASE

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Editorial

Breaking with a tradition of dedicating the December edition of showCASE to an assessment of the United Nations Climate Change Conference (COP) results due to the summit's postponement on account of the COVID-19 pandemic, in the present issue we discuss 'A Renovation Wave for Europe' strategy and its implications for Poland.

Polish energy transformation, as in most of the EU countries, has so far failed to recognise the role of buildings in the greening of the economy. Against this background, the implementation of the Renovation Wave in Poland creates a unique opportunity to modernise and reconfigure Polish building and heating strategies as well as to benefit from synergy with the dedicated EU funds.

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CASE Analysis

Energising the Renovation Wave Strategy. What does it mean for Poland?

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A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives' (COM(2020)662) is new strategy aimed at doubling the renovation rate of existing building stock across the European Union (EU) in the next decade that was announced earlier (October 14th) this year. By improving energy efficiency refurbishments and installation of zero-emission heat sources, as well as 'smart home' technologies and appliances, the Renovation Wave strategy is to be one of the ways for the EU Member States (MS) to achieve climate neutrality by 2050 in accordance with the broader **European Green Deal** objectives.

According to the strategy's authors, European residential and commercial buildings are responsible for 36% of greenhouse gas emissions across the EU. Hence, putting the building stock at the centre of climate action will help to meet the 2030 targets for reducing carbon dioxide (CO₂) emissions, increasing energy efficiency, and developing renewable energy sources (RES). This will lead to a change in the energy mix i.e., in the district heating. For the heat pump industry this is an equivalent of becoming a leader in the generation of heat and cold for buildings as the Commission is set to increase the RES target to approximately 40% by 2030. The requirement for a minimum level of RES in buildings will probably be established as well. In Polish conditions, this will mean a fast

greening of our individual and system heating.

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It is worth noting that the Commission's plan also includes extending the operation of the mandatory CO₂ emission allowance under the **EU Emissions Trading System (ETS)** to the entire heating sector. This will increase energy production costs from fossil fuels (i.e., coal and natural gas) for individual buildings. In the end, the Renovation Wave is a result of the strategy to integrate the energy sectors in order to increase the EU's CO₂ reduction target by 2030.

The Challenge

As much as **75%** of buildings in the EU are energy inefficient. As a result, single-family houses, blocks of flats, office buildings, industrial plants, schools, hospitals consume **40%** of final energy in the EU. In its strategy, the EC estimates that the reduction of CO₂

emissions from 2015 reference year is possible by up to 65% and up to 61% for residential and commercial buildings, respectively. Moreover, investments as part of the Renovation Wave could boost the post-pandemic economic recovery as the construction sector accounts for **almost 10% of the EU's GDP** and provides **around 18 million jobs**, while renovation will result in tangible savings for building users. In fact, it is estimated that the appropriate implementation of the strategy could directly create up to **160 thousand new jobs** by 2030 as the EC plans to increase the current renovation rate at least twofold. As a result, about 35 million buildings could be renovated by 2030.

New Legal Framework

The implementation of the new strategy will be based on the new legal framework and funding provisions. Specifically, among many legislative actions, the EC plans primarily to increase the targets for energy efficiency and RES, as well as to extend the EU ETS system to the building sector. The most important legislative activities in the area of buildings include:

1. **EU ETS Directive**. Currently around 30% of the heat consumed by buildings comes from installations covered by the EU ETS (e.g., utility combined heat and power [CHP] plants, or heat pumps supplied with electricity from the national power grid). The Commission points to the need for the EU ETS to cover all emissions from fossil fuel combustion units that provide heat and cold to buildings. These revenues from the EU ETS could finance national programmes to combat energy poverty.
2. **Energy efficiency directive**, which aims to increase the energy efficiency target for the EU for 2030 from the current level of 32.5% to 39-41% reduction in primary energy consumption¹ and 36-37% reduction in final energy consumption. Moreover, energy audits will have to be conducted in non-residential buildings as well and include e.g., hospitals, schools, and office buildings.
3. **RES directive**, which aims at increasing the EU RES share target for 2030 from 32% to 38-42% (which will result in an increase in the share of RES in heating and cooling to approx. 40%), the heating and cooling sector target (**currently 1.3 pp per year**, or 1.1 pp including waste heat or cooling), as well as additional greening targets for (1) district heating, (2) heating and cooling of buildings, (3) industry

The Polish Landscape

To some extent, the Renovation Wave in Poland is already being implemented, including through instruments such as the **thermo-modernisation tax relief**, which allows to deduct expenses on energy efficiency works, ecological heating and photovoltaics from one's taxable income. After first calculations of the **PIT tax returns for 2019**, it turned out that over 200,000 people benefited from such a tax relief writing off over PLN 3 billion from their taxable income.

According to the **Statistics Poland**, the Polish building stock consists of over 15 million buildings. While modern buildings are characterised by relatively high energy efficiency, older ones have a high energy demand and typically require deep renovation. The condition of houses built

¹ Consumption reduction represents improvement of energy efficiency.

before 1945 accounting for **one fifth** of residential buildings is particularly worrying.

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What will the Renovation Wave Bring to Poland?

Polish energy transformation, as in most EU countries, has so far failed to recognise the role of buildings in the greening of the economy. The topic is typically related to a **poor air quality**, which is the result of many years of green infrastructure development and the lack of incentives to replace coal heating with clean technologies or improve energy efficiency. The otherwise much needed **Clean Air** priority programme has, however, not focused on climate goals when

Table 1. EU funds that can be used to finance the Renovation Wave (estimates)

Source	EU Budget	EU Budget dedicated to PL	Period
Grants			
Recovery and Resilience Facility (Next Generation EU)	Grants: EUR 312 bln (the whole instrument: EUR 672.5 bln)	EUR 23.1 EUR	2021-2023
Cohesion Policy – European Regional Development Fund and Cohesion Fund (EU budget 2021-27)	around EUR 220 bln	around EUR 45-55 bln	2021-2027
Cohesion Policy – ReactEU (Next Generation EU)	EUR 47.5 bln	around EUR 3.5-4 bln	2020-2022
Just Transition Fund (Next Generation EU + EU budget 2021-2027)	EUR 7.5 bln + EUR 10 bln	EUR 1.5 bln _ EUR 2 bln	2021-2023 2021-2027
ETS Modernisation Fund	around EUR 7-11 bln	around EUR 2,9-4.4 bln*	2021-2030
Loans and guarantees			
Next Generation EU	EUR 360 bln loans (instrument as a whole: EUR 672.5 bln)	EUR 34.2 bln	2021-2023
InvestEU (Next Generation EU + EU budget for 2021-27)	EUR 5.6 bln + EUR 2.8 bln	No individual allocations for MS	2021-2023 2021-2027
EIB public sector loan facility	EUR 1.5 bln + EUR 10 bln from the EIB resulting in EUR 30 bln investments	No individual allocations for MS	2021-2027

* The value of the ETS Modernisation Fund depends on the final absolute number of emission allowances and their price.

Source: Forum Energii. The calculations are based on the amounts established by the European Council on July 21, 2020, at 2018 prices.

fighting smog. As a result, taking care of the buildings under the new programme will not only allow Poland to solve the local problem of air pollution, but also to reduce CO2 emissions and develop RES. The government's focus on buildings and synergy with the planned activities of the EC will significantly **reduce the costs** of implementing clean heat and reduce the financial burden that would be otherwise placed on Polish families. At the same time, it is still necessary to develop programs to eliminate energy poverty, using large EU funds for this purpose.

The implementation of the tasks set out in the strategy is associated with high costs. It is estimated, in particular, that the implementation of the plans adopted by the end of 2030 will require EUR 275 billion additional funds per year (see Table 1). For this purpose, special funds will be made available for the Member States.

Recommendations

There is no doubt that Poland can benefit greatly from the Renovation Wave. This, however, will occur under condition that actions necessary to meet the objectives and reach for the EU funds are undertaken by the Polish authorities. The following suggestions of the **Forum Energii** can serve as a starting point.

1. Prepare long-term national and regional strategies while, among others, considering the topic of clean heat in buildings as strategic at both national and local levels. These strategies should take into account the awaiting increase in climate ambitions, which will enter into force in the next two years in the form of new legal provisions on energy efficiency and RES.
2. Effectively use the EU funds while prioritising clean heating in the National Plan for Reconstruction and Resilience and eliminate subsidies for fossil fuels, including gas.
3. Protect citizens from the energy poverty i.e., by using revenues from CO2 emission allowances for this purpose.
4. Build intellectual capital and strengthen green skills on the labour market i.e., by supporting local activities related to the modernisation of buildings, which will create a huge positive impulse for the jobs creation; by supporting national and local knowledge centres to ensure the quality of thermal modernisation and selection of heating devices; education of employees of construction and renovation sectors, on the energy efficiency, use of RES for heat and electricity production, digital solutions for modern buildings as well as on the potential to reduce emissions in buildings.
5. Construct national industry of modern technologies for the purpose of building renovation in order to support domestic producers of cutting-edge zero-emission technologies.
6. Support research and development of zero-emission building technologies while increasing the scale of support for research and development of new technologies related to energy efficiency, digitalisation of buildings, innovative infrastructure for charging electric cars in buildings, and clean heating technologies.

Our Role

With these recommendations in mind, in the past couple of years CASE has been actively involved in delivering research and pilot projects to boost energy efficiency refurbishments in Poland and other EU Member States. *Developing, piloting and standardising on-tax financing for residential energy efficiency retrofits in European cities and regions (EuroPACE)* project implemented by a consortium coordinated by CASE thanks to funding from the EU's **Horizon 2020** programme is an innovative financial platform for home retrofits to improve existing buildings with energy efficiency equipment. The platform is financed through private capital and repaid in a form of on-tax financing scheme. In 2020 we were also actively involved in **Establishment of Energy Efficiency Experts Platform for the National Fund for Environmental Protection and Water Management (NFEP&WM)**. Despite significant progress in energy efficiency indicators, a lot still remains to be done. Thankfully, we have recently found out that a *GREEN HEAT - towards collaborative local decarbonization* project in which CASE is a major partner received funding from the **National Centre for Research and Development IdeaLab** competition 'Cities for the Future: Services and Solutions'. This three-year project will be implemented in a Polish-Norwegian transdisciplinary consortium. Its purpose is to develop and test a methodology for the process of replacing coal stoves with heating systems powered by renewable sources, so keep your fingers crossed!

Highlights

Trade, Innovation, and Productivity

On November 24th-27th, 2020, the **third round of negotiations on the Economic Partnership Agreement between the European Union and five Eastern and Southern Africa (ESA) countries** was held. For these countries, the EU is the most important trade partner, and the negotiations aim to strengthen and deepen the current interim Economic Partnership Agreement in force since 2012. The interim agreement is believed to have brought significant trade effects during the first eight years of its implementation. For instance, EU exports to some ESA countries (Madagascar, Seychelles, and Zimbabwe) have increased by almost 25% in 2018 since the agreement's implementation. The ESA countries have also seen a considerable improvement in their trade volume with the EU in the same period. In line with the current EU policy of signing new trade agreements, these negotiations aim to extend the current agreement beyond trade in goods to a comprehensive and extended economic agreement. These negotiations are also a part of the Africa-Europe Alliance for Sustainable Investment and Employment implementation process that started in 2018. The negotiations, ongoing since January 2020, focus on rules of origin, technical barriers to trade, customs, trade facilitation, sanitary and phytosanitary measures, agriculture, sustainable development, services trade, and investment liberalization, and digital trade. An extended trade agreement will contribute to a further increase in bilateral trade and investment flows between the involved partners and increase the current interim agreement's benefits. Also, it will contribute to regional economic development through regional value chain promotion.

Labour Market and Environment

According to the Ministry of Family, Labour and Social Policy, the **unemployment rate in Poland has remained unchanged for the last three months (6.1%)** despite the pandemic restrictions. The Ministry has thus concluded that the situation on the labour market in Poland has stabilised. Nevertheless, the **Diagnoza.Plus** study, performed by GRAPE in partnership with CASE, has shown that the assessment of the situation on the labour market based solely on the unemployment rate is misleading and completely unsatisfactory. This is because to be defined as unemployed in the official statistics a person has to meet several criteria i.e., being registered as unemployed in the Labour Office, actively look for employment, and being ready to undertake the employment. Yet, the **Diagnoza.plus** study showed that almost one in six people that do not work due to pandemic, did not register as unemployed. There are many reasons behind that, including the Labour Offices being closed, the unavailability of Active Labour Market Policies upskilling and reskilling the individuals as well as fear of being infected that prevented people from going outside. Only people in urgent need of the healthcare insurance or unemployment benefits were more keen on registering as unemployed during pandemic. The ability to undertake employment, one of the conditions to be defined as unemployed, also decreased due to the healthcare situation, possible quarantines, or lack of childcare assistance. Considering such circumstances, the best way to look

at the labour market situation during pandemic would be to observe the number of people employed as well as their working conditions. Read more on the topic at [Diagnoza.plus website](#).

Macro and Fiscal

Despite base inflation reaching values unobserved for years (4.3% in November [according to NBP](#)), prices of main Christmas products in Poland grew only slightly since last year. Online CASE CPI index points to ca. 1.3% increase in food category over the last 12 months. However, prices of some products were highly volatile. This concerns price of cabbage that went down by 12.3% over the last year, beetroots - decrease by 15.1%, coffee – down by 6.4%. Price of cold cuts went up by 5.1%, bread - by 1.5% and crucially, tangerines – increase by 18.6%. Unfortunately, some of the typical products used as gift are also more expensive. Prices of books went up by 5.9%, electronics – by 8.2%, and cosmetics - by 3.6% more. On the other hand, sweets and delicacies are 4.2% and 5.4% cheaper, respectively. Currently, the overall index for prices in Poland is mainly driven by significant increases in prices of services (7.8%) and electricity (9.1%).

Other CASE Products

The Weekly Online CASE CPI

The online CASE CPI is an innovative measurement of price dynamics in the Polish economy, which is entirely based on online data. The index is constructed by averaging prices of commodities from the last four weeks and comparing them to average prices of the same commodities from four weeks prior. The index is updated weekly. For more information on our weekly online CASE CPI, please visit: <http://case-research.eu/en/online-case-cpi>.

According to the December read-out of Online CASE CPI, average prices in Poland remain stable – compared to last month they were about 0.04% lower. This stabilisation can be observed in almost all categories of the inflation basket. The most substantial change happened in “Education” category where prices fell by 1% and “Transportation” where they increased by 1%. Other notable changes include: 0.65% decrease in “House” category and 0.48% increase in average prices in “Recreation and Culture”.

Our Weekly Online CASE CPI



Monthly CASE Forecast for the Polish Economy

Every month, CASE experts estimate a range of variables for the Polish economy, including future growth, private consumption, investments, industrial production, growth of nominal wages, and the CPI.

CASE economic forecasts for the Polish economy						
<i>(average % change on previous calendar year, unless otherwise indicated)</i>						
	GDP	Private consumption	Gross fixed investment	Industrial production	Consumer prices	Nominal monthly wages
2020	-4.0	-4.4	-8.3	-4.6	3.2	3.6
2021	3.8	4.0	3.4	5.2	2.6	3.2

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