

REPowerEU: will it be a new impulse for the long-needed energy policy reforms in Poland?

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1. Introduction

The global energy market crisis, which started in mid-2021 as a result of the COVID-19 pandemic, has been further exacerbated by the Russian invasion of Ukraine in February 2022. The record-high prices of fossil fuels and the need for a rapid reduction in the dependence of the European Union on energy imports from Russia, in particular natural gas, required an urgent review of short- and medium-term energy policy measures. As a result, in May 2022 the European Commission presented the REPowerEU plan – a detailed roadmap for achieving independence from Russian fossil fuels. It proposes the revision of the Fit for 55 package that is currently being negotiated by the EU institutions and calls for an update and extension of the National Recovery and Resilience Plans (NRRP), with a focus on investments in improving energy security in the EU Member States. Notably, the changes proposed under the REPowerEU plan will also affect the process of updating the National Energy and Climate Plans over the next two years.

The negotiations on the final shape of the plan are about to begin, and although they are likely to take months, from the Polish energy and climate policy perspective it is already necessary to understand the gap between the objectives set by the REPowerEU and the national targets. Regardless of the final provisions of the EU directives and regulations, the current crisis makes it necessary to follow the logic of the REPowerEU plan, including speeding up investments in renewable energy and energy efficiency, while at the same time limiting the consumption of natural gas at the level of the entire European Union – at a much more rapid pace than previously assumed. The current work on updating the domestic energy policy should respond to the challenges that Poland will face in the upcoming years in a new, much more demanding political and economic environment.

The authors of this publication sincerely thank the participants of the roundtable “REPowerEU: a new impulse for the national reforms supporting the transformation?”, which took place on 7 June 2022. The discussion on making the best use of the opportunities arising from the REPowerEU plan allowed us to better understand both the perspective of representatives of public administration and business and non-governmental organisations, constituting a key contribution to this publication. We believe that the development of a coherent energy transformation strategy for Poland can only be achieved through the dialogue of representatives of all sectors involved in the process of change.

2. The logic behind the REPowerEU plan

The goal of the REPowerEU plan

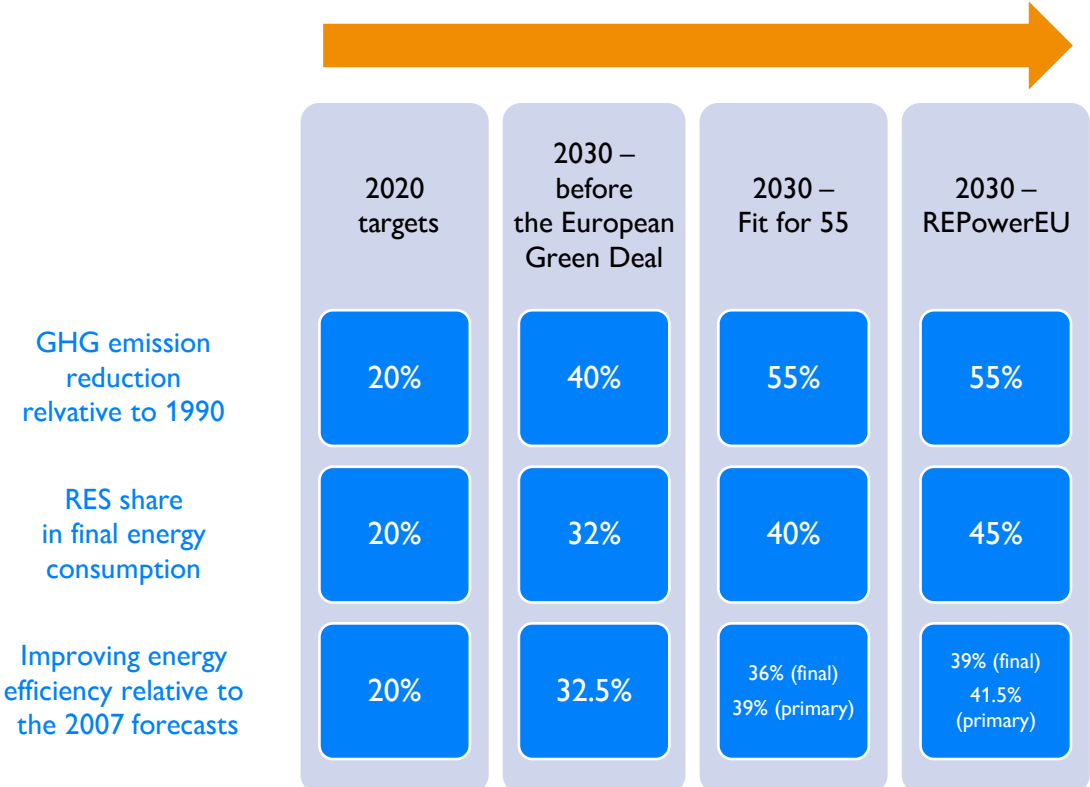
REPowerEU is the European Commission's plan to quickly reduce the dependence of the EU on the import of Russian fossil fuels, in particular natural gas. According to the Commission's estimates, full independence from Russian gas imports will be achieved by 2027 through diversification of the supply and more rapid actions to develop RES and improve energy efficiency. From the perspective of climate action, additional investments in renewables will balance the slower than previously assumed withdrawal of coal from the European energy system due to the impossibility of using natural gas as a transition fuel for energy transformation. Importantly, the exact proportion between coal and natural gas in the EU energy mix will be determined by the prices of these fuels and emission allowances, and as such is not directly addressed by the REPowerEU plan. Instead, the plan focuses on an additional acceleration of investments in renewables and energy efficiency compared to the proposals included in the Fit for 55 package.

Policy tools

The REPowerEU plan focuses on three main areas:

- Energy efficiency – the European Commission proposes an additional increase in the EU's binding target for improving energy efficiency by 2030: it should increase by 13% compared to current policies (the initial Fit for 55 provisions set the target at 9%).
 - Short-term actions: support for a change in behaviour of energy consumers,
 - Long-term actions: increasing the stringency of the provisions of the Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD).
- RES development – the European Commission proposes an increase in the RES target for 2030 from the current 32% to 45% (the initial Fit for 55 provisions set the target at 40%). This will be possible by:
 - removing administrative barriers for RES investments,
 - accelerating the development of PVs through the implementation of the EU solar energy strategy,
 - increasing the production and use of renewable gases – hydrogen and biomethane.
- Diversification of energy suppliers:
 - launch of the EU Energy Platform,
 - potential implementation of the joint procurement mechanism,
 - development of long-term cooperation with suppliers of energy carriers.

Diagram 1. Evolution of the European Union's climate and energy targets



Source: Reform Institute

Reforms at the EU level

The REPowerEU reforms related to the green transition generally follow the direction of changes proposed by the European Commission in the Fit for 55 package, including in particular the provisions of directives on energy efficiency (for the whole economy and buildings) and renewables. Thus, the Commission does not opt for a revolution in the objectives of the EU climate and energy policy, but rather significantly increases previously established targets with an aim to accelerate the elimination of the demand for fossil fuels. At the same time, the proposed amendments do not affect climate targets. Therefore, the Commission considers that the additional development of RES and the improvement of energy efficiency will compensate for a slower than previously predicted coal exit in the European power sector, in line with the logic of direct transition from fossil fuels to zero-emission energy sources, abandoning the approach that envisaged fossil gas as a “bridge fuel” in the net-zero transition.

Reforms at the Member State level

Implementation of the REPowerEU objectives will require actions by all the EU Member States. For this purpose, the Commission proposes to use the already existing National Recovery and Resilience Plans framework. According to the Commission's proposal, each country will have to add a new chapter when updating their National Recovery and Resilience Plans, which will describe what additional reforms and investments will be implemented by the country concerned in order to achieve the objectives of the REPowerEU.

In particular, new initiatives within the recovery plans should allow to:

- develop energy infrastructure enabling the diversification of the supply of crude oil and natural gas to the European Union,
- remove the bottlenecks in energy transmission,
- accelerate the modernisation of energy production and consumption system:
 - increase the production of energy from renewables,
 - improve the energy efficiency of buildings,
 - reduce emission intensity of industry,
 - increase the production and use of sustainable biomethane and green hydrogen,
 - support the development of zero-emission transport, including rail.
- support the above-listed objectives through the development of supply chains and faster reskilling of the workforce.

As with other parts of the NRRP, the new chapter should include reforms and investments, together with the corresponding milestones and target values. Its assessment will be subject to the same procedures as the rest of the plan. As an important exception, there will be no need to achieve the minimum share of digital investment in the expenditure covered by the new chapter. The application of the “Do No Significant Harm” (DNSH) principle with regards to certain investments in fossil fuel infrastructure will also be more flexible.

Additional investment needs and their financing

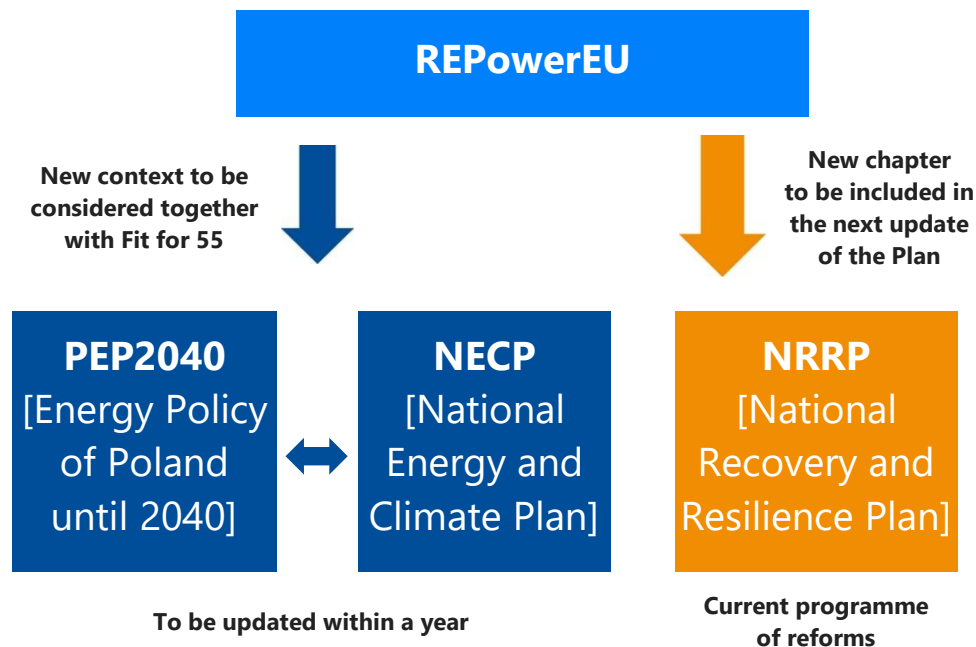
Additional EUR 210 bn in investments by 2027, beyond what is needed for the implementation of the Fit for 55 package, will be required to meet the REPowerEU objectives. The Commission proposes to rely on the resources already available under the Recovery and Resilience Facility, which currently supports investments envisaged by the NRRPs. At the EU level, around EUR 225 bn EUR is still available under the Facility in the form of loans not yet used by the EU Member States. The Commission proposes that these measures can be made available to the other Member States if the countries that are currently entitled to use them decide not to. For example, Poland has now used only EUR 11.5 bn of available EUR 34.2 bn in loans. The Commission also proposes to increase flexibility when it comes to the transfer of funds that have been allocated to the Member States as a part of cohesion and rural development policies to the investments listed in the NRRP.

These actions, as well as the launch of new EU-wide calls for projects under the Connecting Europe Facility (CEF) and the announced increase in the scale of the Innovation Fund, do not generate new funding compared to what was already in place or at least discussed within the Fit for 55 package. The only initiative in the framework of the REPowerEU providing the Member States with completely new financial resources is the proposal by the Commission to increase the grants available under the Recovery and Resilience Facility by EUR 20 bn EUR across the EU. The additional funding will come from auctioning a portion of the emission allowances remaining in the EU ETS Market Stability Reserve. However, this solution is controversial given that an increase in the supply of allowances may lead to a decrease in their price, thereby reducing the revenues of the Member States from auctioning within the system.

3. REPowerEU and Polish reforms

National Recovery and Resilience Plan will be the main tool for implementing the proposed changes at the national level. If the Commission’s proposal is adopted, Poland will have to expand its NRRP during its next update by including a chapter consistent with the objectives of the REPowerEU. An additional incentive to update the current Plan will be the risk of losing access to currently unutilised loans, with their attractiveness significantly increasing, given the limited possibility of obtaining cheap financing from other sources.

Diagram 2. REPowerEU and the landscape of Polish strategic documents



Source: Reform Institute

Given the need for consistency between the NRRP, the National Energy and Climate Plan (NECP) and other national strategies, it is also necessary to take into account the impact that the REPowerEU will have on the revision process of the NECP (the Member States will have to submit the draft version of the updated plans by mid-2023) and Energy Policy of Poland until 2040 (PEP2040). At the end of March 2022, the Polish government decided to update the PEP2040 by strengthening the aspects related to energy security and energy independence. The process of updating the policy is scheduled to last at least until the end of 2022. Despite the publication of the government's assumptions for the new document, there is still no clear definition of quantitative objectives for RES development or the improvement of energy efficiency. For example, there is a lack of consistency between the declaration of achieving 50 GW RES installed by 2030 and the target of achieving the 50% renewables share in electricity production only by 2040. There is also no clear description of the approach to the management of an accelerated transformation directly from coal to zero-emission sources.

At present, it is the National Recovery and Resilience Plan and not the PEP2040 that contains the most detailed list of commitments of the Polish government with respect to both reforms and investments associated with energy transformation. The analysis of the NRRP makes it possible to compare the currently planned initiatives in individual sectors of the economy with

the needs arising from the REPowerEU plan. In a following part of the chapter, we review the current reform plans on the national level and indicate the missing actions that should be included in the new chapter of the NRRP and in the updated NECP, as well as PEP2040.

3.1 Supply of green electricity

Unlocking the development of the key RES sector – onshore wind energy – is one of the most discussed reforms envisaged in the energy part of the NRRP. It is complemented by the announcement of the RES auction plan for the next 5 years, which has the chance to ensure predictable conditions for investors interested in this support scheme. The NRRP also outlines plans for the implementation of new rules to facilitate the participation of new types of actors in the energy market, as well as to foster better integration of offshore wind energy. The plan also assumes a broad improvement in access to information on the energy system. These changes – as long as they are effectively implemented – mainly focus on making up for the lags from the previous years, which resulted in the underutilisation of the potential of wind power and distributed generation.

At the same time, NRRP completely overlooks the key area of REPowerEU – the simplification of procedures allowing for the acceleration of the necessary investments in RES and connecting them to the grid. In the case of grid constraints, it will be important not only to remove the formal barriers but also to adapt the pace of development of the physical infrastructure to the needs of transformation. This requires, among other things, reforming the grid tariff system to generate improved incentives, both when it comes to the expansion of the network and the integration of distributed energy sources. The adaptation of long-term network development plans to a rapid increase in production and the consumption of electricity from zero-emission sources is also needed. In this context, clearly defined RES targets are inextricably linked to the process of planning the grid development. This includes both the integration of photovoltaics with the modernisation of existing and construction of new buildings, as well as further expansion of onshore and offshore wind energy.

<p align="center">Key announced reforms – current NRRP provisions</p>	<p align="center">Reform priorities consistent with REPowerEU</p>
<ul style="list-style-type: none"> • Greater flexibility in applying the 10H rule which currently limits onshore wind deployment (spatial planning) – Q2 2022, • RES auction plan until 2027 – Q3 2022 • new rules for energy clusters, collective prosumers, energy communities – Q1 2023, • balancing market reform, facilitating the integration of offshore wind farms – Q4 2023, • Central Energy Market Information System (OIRE/CSIRE) – Q4 2024. 	<ul style="list-style-type: none"> • Simplifying procedures – faster issuing of permits, “go-to” areas for RES, • grid connections: 1) adaptation of the network development plan to accelerated transformation, 2) systemic reform of tariffs – incentives for the development of distributed energy and efficient network financing, • PVs as a standard for the building renovations and new buildings (solar rooftops), • plan to exploit the full potential of onshore and offshore wind energy.

3.2 Decarbonisation of industry

The current reform plans in the area of decarbonisation of industry focus on improving existing tools to promote energy efficiency and launching a support system for investments with the lowest unit cost of reducing greenhouse gas emissions. In both cases, there is a lack of framework for qualitative change in production processes in the industry, which is essential for full decarbonisation and independence from fossil fuels. This concerns the current demand for electricity on the part of the industry, the additional demand resulting from direct electrification of industrial processes, as well as the indirect increase in demand for clean energy needed to replace the grey hydrogen currently used in the Polish industry. In particular, there is a lack of solutions which allow the industry to access large quantities of green energy (including, for example, a transparent legal framework for corporate Power Purchase Agreements or direct lines) as well as operational support (e.g. carbon contracts for difference) which would facilitate the financing of investments in zero-emission production processes based on clean electricity and zero-emission hydrogen. At a system level, there is a lack of integrated planning of key network infrastructure necessary for the decarbonisation of industry: both the power system and the complementary hydrogen and CO₂ systems.

Key announced reforms – current NRRP provisions	Reform priorities consistent with REPowerEU
<ul style="list-style-type: none"> • Facilitating the implementation of the energy saving obligation – Q2 2022, • support system for investments in RES and energy efficiency in enterprises – Q4 2022. 	<ul style="list-style-type: none"> • Removing systemic barriers to green electrification of industry, • systemic plan for replacing grey hydrogen with green hydrogen, • Carbon Contracts for Difference providing operational support for innovative industrial technologies, • inclusion of industrial decarbonisation in the plans for the development of network infrastructure: electricity, hydrogen and CO₂.

3.3 Renovation of buildings

The changes that are now announced in the area of buildings renovation focus on extending the pool of beneficiaries of state policy in this area. Such an approach is visible in the “Clean Air” programme, where planned reforms will enable those with higher incomes to benefit from the programme (assuming the pooling of loans and subsidies). The government also aims to introduce financial incentives to achieve energy performance above the existing standards in housing construction for low and medium-income beneficiaries. At the same time, NRRP introduces restrictions on the share of gas installations in total new sources used to replace old ones within programmes implemented with the support of NRRP funds (e.g. 40% for the “Clean Air” programme and 20% for the modernisation of schools). It should be noted, however, that the limits do not take into account the new market environment or the changing preferences

of the beneficiaries themselves, as demonstrated by the sharp decrease in the share of gas sources in all the new sources supported by the "Clean Air" programme from approx. 40% to approx. 25% in the first half of 2022. Similarly, the draft Strategy for district heating, published at the end of May 2022, still assumes a far-reaching deployment of cogeneration plants based on natural gas (addition of more than 5 GWe).

Despite the numerous announcements, the reforms indicated in the NRRP still do not sufficiently take into account the need for rewarding the investments in the deep and comprehensive energy modernisation of buildings, i.e. combining the improvement of energy efficiency with the replacement of heat sources with zero-emission technologies. This applies in particular to the largest programme – "Clean Air", as well as support for investments in public buildings, which should lead the modernisation to the zero-emission standard by their own example.

The new situation in the fuel market and the change in the strategic role of natural gas in the European energy transformation urgently requires a plan for departure from investments in gas heating, both at the level of individual sources and for district heating systems. Providing a number of milestones covering the end of state support for gas investments and the date of the ban for new investments in gas heating will enable the adaptation of investment plans and the development of the market for zero-emission alternatives in both individual and district heating. Also in this area, due to the crucial importance of electrification of heat sources and integration of sectors, it will be important to ensure an adequate increase in the supply of zero-emission electricity and to adapt the grid to new needs.

<p align="center">Key announced reforms – current NRRP provisions</p>	<p align="center">Reform priorities consistent with REPowerEU</p>
<ul style="list-style-type: none"> • Greater support for investment in energy-efficient housing construction for low and medium-income beneficiaries – Q2 2022, • inclusion of higher income households in the "Clean Air" programme (combining loans and subsidies) – Q1 2023, • restrictions on the share of gas sources in the modernisation of buildings (up to 40% in the "Clean Air" programme). 	<ul style="list-style-type: none"> • Promoting a deep and comprehensive energy modernisation of buildings, • plan for phasing out investments in gas-based heating, • better accounting for the integration of sectors and energy efficiency in the strategies for district and individual heating modernisation.

3.4 Sustainable mobility

Compared to the buildings and industry sectors, the reforms concerning the transport sector contained in the NRRP are far-reaching in terms of a systemic approach to transformation and provision of incentives for choosing less carbon-intensive solutions. The reform plan envisages the use of tax incentives to reduce the number of emission-intensive vehicles, a solution widely used in other European countries,¹ as well as the regulation that directly requires the use of zero-emission technologies in large urban areas. These actions complement the requirements for strengthening the planning of sustainable mobility at a local level. The NRRP also envisions establishing the fund to support the expansion of the supply chain for zero-emission mobility, but its actual effectiveness will depend on the rules for selecting the initiatives to be financed.

Combined, the reforms included in the NRRP have a high potential to accelerate technological transformation in transport, depending on the detailed parameters of the implemented regulations. Nevertheless, less attention is paid to ensuring an adequate supply of clean electricity and the expansion of the grid infrastructure necessary for the development of electromobility. In addition, taking into account the need to eventually move away from fossil fuels also in the areas that are difficult to electrify, e.g. in aviation or heavy-duty vehicles, it is necessary to urgently define the plan for the use of zero-emission fuels in a complementary manner to wide-ranging direct electrification of transport. Given the relatively high cost and potential supply limitations of zero-emission fuels (e.g. sustainable hydrogen, advanced biofuels), it is crucial to set clear priorities regarding their supply and use.

<p style="text-align: center;">Key announced reforms – current NRRP provisions</p>	<p style="text-align: center;">Reform priorities consistent with REPowerEU</p>
<ul style="list-style-type: none"> • Mandatory low emission zones in selected cities – from 2025, • development fund for low- and zero-emission industries – Q2 2022, • tax incentives discouraging purchasing (Q4 2024) and owning (Q2 2026) emission-intensive vehicles, • obligation to purchase low- and zero-emission buses in cities with over 100 thousand inhabitants – from 2025, • Sustainable Urban Mobility Plans – Q1 2023, • support for the development of intermodal transport by eliminating bottlenecks – Q4 2022. 	<ul style="list-style-type: none"> • Integration of the electromobility development with modernisation and greening of the electricity grid, • development plan for zero-emission fuels which are complementary to direct electrification.

¹ Registration fees depending on the emission intensity and vehicle ownership charges are widely used in the EU, including in the countries of Central and Eastern Europe. (see <https://www.acea.auto/publication/acea-tax-guide-2022/>).

3.5 Green gases

NRRP provisions take into account the key first step for the emergence of the green gas market in Poland, i.e. defining its legal framework in 2023. The plan also includes a series of hydrogen investments, including 320 MW of installations producing hydrogen as well as refuelling stations. However, these actions are currently fragmented, due to the lack of defined strategic role of green gases in energy transformation. While the hydrogen strategy adopted by the government identifies a number of areas for the development of hydrogen technologies, it does not define their possible role in the climate-neutral energy and fuel system. This, in turn, translates into the uneven implementation of activities in individual sectors (e.g. priority given to supporting investment in hydrogen buses in the absence of systemic support for the replacement of grey hydrogen in the industry by zero-emission alternatives).

In addition, in the current situation in the natural gas market and in view of the need for a lasting decoupling of the entire European Union from supplies of this fuel from Russia, it becomes necessary to review the planned scale of domestic production of green gases by 2030. The supply of additional volumes of biomethane and green hydrogen over the next few years will require an urgent launch of the support system that goes beyond the preparation of individual projects. At the same time, this system should play the role of an early accelerator in the development of the new market so that the support can be phased out in the medium and long term, along with the improvement of the competitiveness of green gases.

Key announced reforms – current NRRP provisions	Reform priorities consistent with REPowerEU
<ul style="list-style-type: none">• Legal framework for the biomethane market – Q1 2023• Legal framework for the hydrogen market – Q4 2023	<ul style="list-style-type: none">• Defining the role of green gases in transformation, taking into account their complementary role to direct electrification and supply constraints,• implementing systemic support tools for the production of green gases at an early stage of market development.

3.6 Cross-cutting challenge – from financial support to a friendly regulatory environment for zero-emission technologies

The combination of the continued long-term decline in costs of green technologies, the progressive tightening of climate targets and the recent crisis in the fuel market makes investments that help to reduce the dependence of the economy on fossil fuels the most attractive option both from the economic competitiveness perspective and when the resilience to future global and regional shocks is being considered. Thus, it is becoming increasingly important not only to extend the financial support for energy transformation from public funds but also to remove regulatory barriers that slow down the investments in technologies and business models that have already reached market maturity (e.g. wind energy, photovoltaics, cPPA contracts), as well as to introduce zero-emission standards in sectors characterised

by high inertia (transport, buildings) and to implement coordinated development of network infrastructure, which will enable green electrification and integration of individual sectors.

In this context, it is extremely important to formulate a clear strategic framework for transformation, indicating both the final shape of the new energy system and the pace of changes in individual sectors. The combination of a strategic vision, efficient use of resources available to support transformation, ambitious zero-emission standards and removing the barriers which hinder investments in zero-emission infrastructure will be a very important signal for both the technology providers and workers. The prospect of high, predictable demand for zero-emission solutions will result in investment decisions regarding the development of supply chains and encourage workers to obtain new skills required in green sectors.

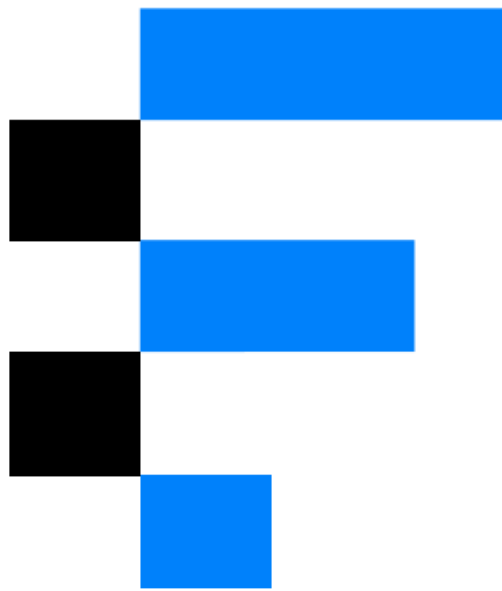
4. Summary

The REPowerEU plan intends to increase the pace of energy transition based on RES and energy efficiency compared to what was initially proposed within the Fit for 55 package. This is necessary to achieve independence from imports of Russian gas in a timely manner while respecting the target of a 55% GHG reduction by 2030. Given that natural gas will no longer be treated as a transition fuel (i.e. no reliance on large-scale coal-to-gas switch driven by carbon pricing), the role of regulatory changes that unlock the potential of RES substantially increases – it becomes key for the economy to move directly from coal to zero-emission sources, in line with the “coal to green” logic.

Despite the fact that the NRRP foresees a number of important reforms for the energy transformation of the Polish economy, the current provisions of the Plan are insufficient to achieve the objectives of the REPowerEU. The key directions for further reforms include:

- 1) defining **green electrification** (phasing out the use of fossil fuels through direct electrification, with a rapid increase in the volume of RES-based electricity) as a key process for reducing the dependency of buildings, transport and industry on fossil fuel imports. This requires the adaptation of both **demand-side support programmes** (renovation of buildings, modernisation of industry, sustainable mobility) and the update of the **energy system development plans**, especially these focused on investments in the grid infrastructure, which is currently a key bottleneck for green electrification,
- 2) eliminating **administrative barriers and legal gaps** which delay or block the investments in RES and grid infrastructure, **both in the power sector and on the demand side** (including electromobility and innovative industrial processes),
- 3) urgently translating the “**energy efficiency first**” principle into practical solutions for the design of energy transformation support systems and public investment,
- 4) implementing a **systemic approach to the use of green gases**, prioritising their use where direct electrification of demand is not possible and after implementing actions focused on energy efficiency. This approach should take into account the relatively high cost of producing green gases and their limited total volume available for the economy as a whole,
- 5) supporting the **increased potential to supply green solutions**, in particular via investments in the development of the supply chain, improving workers’ skills and more efficient use of necessary raw materials in accordance with the principles of a circular economy.

The scale and scope of the challenge of rapidly restructuring the energy system, far-reaching interdependencies between individual sectors and the key role of long-term investments in the network infrastructure mean that it is now particularly urgent to develop and adopt a comprehensive transformation strategy with ambitious mid-term objectives by 2030 and the vision for Poland in a climate-neutral Europe in 2050.



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