Aligning Belarusian economy with the European Green Deal

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List of abbreviations

AFIR – Alternative Fuels Infrastructure Regulation

BAT – Best Available Techniques

BREF – BAT Reference Document

BSCE – Belarusian Currency and Stock Exchange

CAP – Common Agricultural Policy

CCUS – Carbon Capture, Utilisation and Storage

CEF – Connecting Europe Facility

COM – European Commission Communication

CO_2 – Carbon Dioxide

CSRD – Corporate Sustainability Reporting Directive

EAEU – Eurasian Economic Union

EBRD – European Bank for Reconstruction and Development

EC – European Commission

EED – Energy Efficiency Directive

EGD – European Green Deal

EIB – European Investment Bank

ENTSO-E – European Network of Transmission System Operators for Electricity

EPBD – Energy Performance of Buildings Directive

ESG – Environmental, Social and Governance

ESRS – European Sustainability Reporting Standards

ETS – EU Emissions Trading System

ETS 2 – EU Emissions Trading System for Buildings and Road Transport (from 2027)

EU – European Union

EV – Electric Vehicle

FAO – Food and Agriculture Organization of the United Nations

FQD – Fuel Quality Directive

GEF – Global Environmental Facility

GHG – Greenhouse Gas

GoOs – Guarantees of Origin

HDV – Heavy-Duty Vehicle

ICE – Internal Combustion Engine

IED 2.0 – Industrial and Livestock Rearing Emissions Directive

IEA – International Energy Agency

IFC – International Finance Corporation

IFOAM – International Federation of Organic Agriculture Movements

IPARD – Instrument for Pre-Accession Assistance in Rural Development

IRENA – International Renewable Energy Agency

LCP – Large Combustion Plant

LDV – Light-Duty Vehicle

LIFE – EU Programme for Environment & Climate Action

LULUCF – Land Use, Land-Use Change and Forestry

Mtoe – Million Tonnes of Oil Equivalent

MRV – Monitoring, Reporting and Verification

NDICI – Neighbourhood, Development and International Cooperation Instrument (EU)

N_2O – Nitrous Oxide

PV – Photovoltaics

RED – Renewable Energy Directive

TED – Tenders Electronic Daily (EU public procurement portal)

UNDP – United Nations Development Programme

VAT – Value-Added Tax

1. Introduction

The prospect of Belarus' integration into the European Union (EU) raises fundamental questions about the alignment of its economy with the EU's increasingly ambitious environmental and climate policy framework. Since 2019, the EU has advanced a comprehensive agenda under the European Green Deal[1] (EGD), supported by extensive legislative reforms aimed at delivering climate neutrality by 2050. These initiatives have tightened emissions caps, set ambitious renewable energy deployment targets, strengthened energy efficiency obligations, and expanded sustainability reporting requirements. For countries aspiring to join the Union, this acquis represents not only an environmental benchmark but also a demanding entry condition that directly shapes their economic models, investment priorities, and regulatory institutions.

Following the adoption of the revised enlargement methodology[2], the EU acquis is structured around six thematic clusters. For Belarus, the cluster on the Green Agenda and Sustainable Connectivity – which includes the acquis on transport policy, energy, trans-European networks, environment, and climate change – would represent one of the most challenging yet strategically important areas of alignment. Unlike countries already integrated through the Energy Community framework, Belarus remains outside EU-linked energy governance structures and has only limited experience with legislative approximation in this cluster. Progress to date has been uneven: while steps have been taken to diversify the energy mix and promote energy conservation, many core elements of the acquis – such as carbon pricing, renewable energy guarantees of origin, best available techniques in industry, and clean vehicle procurement – are absent or only partially developed.

The aim of this report is therefore twofold. First, it seeks to identify EU energy and climate regulations, particularly those stemming from the European Green Deal, most relevant for Belarus' key economic sectors. Second, it assesses the readiness of Belarus to comply with these regulations and the potential impacts that such harmonisation would entail. By combining regulatory mapping with sectoral impact analysis, the report offers a structured basis for understanding both the challenges and the opportunities of EU integration for the Belarusian economy.

The scope of the analysis is energy-relevant EU environmental legislation and its implications across the five largest sectors of the Belarusian economy: agriculture, manufacturing, electricity, gas, steam and air conditioning supply, construction, and transport. These sectors are both economically significant and highly exposed to EU rules on emissions, efficiency, and sustainability. While other important areas of the acquis – such as waste management and biodiversity – also warrant attention, they fall outside the scope of this report.

The report is organised into six sections. Section 2 introduces the European Green Deal and the key energy–environmental legislation most relevant for Belarus, ranging from the EU Emissions Trading System and the Renewable Energy Directive to the Energy Performance of Buildings Directive and CO2 standards for vehicles. Section 3 compares the EU legislation with Belarus' current energy–environmental legislation and identifies the main institutional, legal, technical, and capacity gaps that would need to be closed to achieve harmonisation. Section 4 assesses economic impacts of harmonisation at the sectoral level, focusing on cost structures, trade opportunities, technological transitions, and access to EU funding. Section 5 explores Belarus' broader potential for low-carbon development, including renewable energy expansion, energy efficiency, transport electrification, and nuclear safety alignment. Section 6 concludes with reflections on the broader developmental implications of accession, highlighting both the scale of the challenge and the potential long-term benefits in terms of competitiveness, sustainability, and economic modernisation.

2. Key legislation under the European Green Deal relevant for Belarus

2.1 European Green Deal: A brief overview

Adopted in 2019, the European Green Deal[1] (EGD) is the EU's overarching growth strategy to achieve climate neutrality by 2050. It sets out a comprehensive framework of legislative, financial, and governance measures to transform the EU's economy while ensuring fairness and competitiveness. Building on the "Fit for 55" package[3] and subsequent policies, the EGD strengthens targets for emissions reductions, renewable energy deployment, energy efficiency, and sustainable mobility. It also broadens the scope of environmental law by linking climate action with industrial policy, biodiversity protection, and social justice. For prospective members such as Belarus, the Green Deal defines the benchmark for accession, requiring harmonisation across a wide set of sectoral and cross-sectoral regulations that are central to the EU's low-carbon transition.

2.2 Key energy-environmental legislation under the EGD

Given Belarus' economic structure and the need to align with the EU acquis as part of prospective integration into the European Union, the core energy-environmental legislation introduced or reinforced under the EGD represents the most relevant benchmark for assessing the scope and depth of required harmonisation. Table 1 summarises these regulations and directives, which are discussed in greater detail below.

EU Emissions Trading System (ETS)

The EU Emissions Trading System (ETS) is the cornerstone of European climate policy as well as the world's first and one of the largest carbon market. Launched in 2005[4], it operates on a "cap-and-trade" principle: a cap is set on total greenhouse gas (GHG) emissions from covered sectors, which account for roughly 40% of total EU emissions. Companies must monitor and report their emissions annually and surrender a corresponding number of allowances, each representing the right to emit one tonne of CO_2-equivalent. Allowances are largely auctioned, but some are allocated for free under strict conditions. They are tradable on the EU carbon market, where prices provide an incentive for cost-effective emission reductions. Member States use the revenues from this trade for climate action, innovation, and just transition measures.

Under the EGD, the ETS Directive was revised in 2023[5], substantially strengthening the system to align it with the EU climate targets of reducing its net GHG emissions by at least 55% by 2030, compared to 1990 levels, and achieving climate neutrality by 2050. The emissions cap will now decline faster, delivering a 62% cut in covered sector emissions by 2030 compared to 2005. Maritime shipping was added in 2024, free allocation of allowances is being phased out, and a new ETS 2[6] will cover emissions from buildings and road transport starting from 2027. The reforms also expanded the Market Stability Reserve to manage allowance supply and created the Social Climate Fund[7] to mitigate social impacts of carbon pricing on vulnerable households and small businesses.

Renewable Energy Directive (RED III)

The Renewable Energy Directive (RED) is the central instrument for scaling up renewable energy across the European Union, which sets binding EU-wide renewable energy targets and supports cooperation between Member States. Renewable energy is a central pillar of the EGD, seen as a reliable and affordable energy source that also reduces dependence on external suppliers and therefore increases the EU's energy security. To accelerate the clean energy transition, reflecting the urgency of the climate and energy security crises, the 2018 RED II[8] was revised in 2023, with the amending RED III[9] entering into force on 20 November 2023. Building on the 2009 (RED I[10]) and 2018 (RED II) directives, RED III introduces stronger measures to accelerate the deployment of renewables in line with the EU's goal of climate neutrality by 2050. It sets a new headline target for renewables to account for at least 42.5% of the EU's final energy consumption by 2030, with an aspirational goal of 45%. To address existing bottlenecks, RED III streamlines permitting procedures, including the designation of "renewables acceleration areas" where approval times for renewable projects and related infrastructure are significantly shortened.

Energy Efficiency Directive (EED)

The 2023 Energy Efficiency Directive[11] significantly raises the EU's ambition by establishing the principle of "energy efficiency first" as a legal principle guiding investment and policymaking, both in the energy system and across other sectors. The 2023 revision, part of the EGD and strengthened further through the REPowerEU plan[12], sets a binding target of reducing EU energy consumption by 11.7% by 2030 compared to projected use in the 2020 reference scenario, with overall primary energy use capped at 992.5 Mtoe and final energy at 763 Mtoe. The EED also updates efficiency standards for district heating and cooling with the aim of achieving full decarbonisation of these systems by 2050 and introduces mandatory monitoring of data centres to track energy and water use.

Energy Performance of Buildings Directive (EPBD)

The Energy Performance of Buildings Directive (EPBD), first adopted in 2002[13] and most recently revised as Directive (EU) 2024/1275[14], followed by reforms under the 'Fit for 55' package and the REPowerEU plan,

which made building renovation central to the EU's climate, social, and energy security goals, is the EU's key legislative instrument for improving the efficiency and decarbonisation of the building stock. The revised EPBD aims to deliver a zero-emission and fully decarbonised building stock by 2050. It strengthens minimum energy performance standards, prioritises the renovation of worst-performing buildings, and introduces new tools such as digital building logbooks and renovation passports. The directive also supports integration of renewable energy in buildings, modernisation of heating and cooling systems, and improved financing and technical assistance, thereby reducing energy bills, creating jobs in the construction sector, and improving living conditions across the EU.

Industrial and Livestock Rearing Emissions Directive (IED 2.0)

Originally adopted in 2010[15], the amended Industrial and Livestock Rearing Emissions Directive (IED) is the EU's main instrument for reducing industrial and intensive livestock pollution to air, water, and land. It regulates pollution from large industrial installations through permits based on Best Available Techniques (BAT)[16]. The 2024 updated IED 2.0[17] aligns with the EU's zero-pollution ambition by tightening emission limit values, expanding coverage to new sectors (such as battery manufacturing, metal mining, and more intensive pig and poultry farms), and strengthening enforcement through higher penalties and expanded public rights, including the ability to claim compensation for health damages. Special provisions also continue to apply to Large Combustion Plants (LCPs), reflecting their role in pollutant emissions. Overall, IED 2.0 not only tightens compliance for traditional heavy industries but also broadens EU oversight to intensive farming and new industrial activities, ensuring a more comprehensive approach to reducing pollution and stimulating industrial decarbonisation.

Alternative Fuels Infrastructure Regulation (AFIR)

The Alternative Fuels Infrastructure Regulation[18] (AFIR) is a central element of the EGD's strategy for transport decarbonisation and electrification. Its objective is to ensure the EU-wide roll-out of charging and refuelling infrastructure, while guaranteeing interoperability, consumer transparency, and ease of use. AFIR establishes binding national targets for both fleet-based and distance-based installation of publicly accessible charging stations for light- and heavy-duty electric vehicles, alongside mandatory development of hydrogen refuelling stations and shore-side electricity supply in major maritime ports and airports. To enhance user-friendliness, it also requires transparent pricing, smart charging, and simple payment systems. By harmonising infrastructure standards, AFIR seeks to accelerate the widespread adoption of alternative fuel vehicles across all transport modes in the EU, thereby supporting the achievement of the Union's climate objectives.

Clean Vehicles Directive

The Clean Vehicles Directive (2019/1161/EU)[19] predates the EGD but remains highly relevant to its objectives. It promotes the uptake of low- and zero-emission vehicles by setting binding public procurement targets across Member States, requiring that cars, vans, trucks, and buses acquired through public contracts meet minimum

thresholds for "clean vehicles," defined by strict CO_2 and pollutant limits. The directive applies to a wide range of public service contracts, including road transport, refuse collection, postal delivery, and other municipal services, with compliance monitored via the EU's Tender Electronic Database (TED) to ensure transparency and consistency. By mandating demand through public procurement, the directive creates market certainty for manufacturers and accelerates the deployment of clean mobility solutions across Europe. For Belarus, alignment would necessitate restructuring procurement policies and financing mechanisms to support fleet renewal, creating both new challenges and opportunities to participate in the EU's clean mobility supply chains.

Fuel Quality Directive (FQD)

The Fuel Quality Directive (FQD, 2009/30/EC)20 sets common fuel quality standards across the EU for petrol, diesel, and biofuels used in road transport, as well as gasoil for non-road mobile machinery. Its purpose is twofold: to reduce air pollution and greenhouse gas emissions from fuels, and to ensure compatibility of fuels across all EU Member States, creating a single market for road fuels. The directive imposes strict limits on harmful fuel components such as sulphur, lead, manganese, aromatics, and polycyclic aromatic hydrocarbons, while regulating the blending of biofuels. Originally, the FQD also required a 6% reduction in the greenhouse gas intensity of transport fuels by 2020, but this target has since been absorbed into the RED III9, which now sets the EU's 2030 transport decarbonisation goals. Member States must still monitor and report on fuel quality and composition to ensure compliance.

CO_2 Emission Standards for Vehicles

The EU vehicle CO_2 standards (Regulations 2019/631[21] and 2019/1242[22]) were strengthened under the Green Deal through Regulation 2023/851[23], tightening the 2030 reduction targets and introducing a 100% CO_2 reduction requirement for all new cars and vans from 2035, effectively phasing out internal combustion engine (ICE) vehicles. Manufacturers that fail to comply face significant penalties. The Regulation is designed not only to cut emissions in line with the European Climate Law[24], but also to spur innovation in zero-emission technologies, strengthen EU competitiveness in the automotive sector, and deliver cleaner, more affordable mobility for citizens.

Corporate Sustainability Reporting Directive (CSRD)

Adopted in 2022, the Corporate Sustainability Reporting Directive[25] introduces mandatory sustainability reporting for large and listed companies, using detailed EU Sustainability Reporting Standards (ESRS). Companies must disclose their climate risks, transition plans, and environmental, social, and governance (ESG) impacts. By introducing uniform and detailed reporting rules, the CSRD strengthens transparency, comparability, and accountability across EU markets and complements the EGD's objectives. Importantly, its scope also extends to non-EU companies with significant activity in the EU market.

Table 1. Summary of the key legislation under the European Green Deal relevant for Belarus' integration

Legislation	Summary
EU Emissions Trading System (ETS, Directive (EU) 2023/959)	Market-based mechanism that caps CO_2 emissions from energy-intensive sectors and allows trading of emission allowances. Central to EU climate policy.
Renewable Energy Directive (RED III, Directive (EU) 2023/2413)	Sets binding renewable energy targets across sectors (electricity, heating, transport); introduces hydrogen and industrial renewable benchmarks.
Energy Efficiency Directive (EED, Directive (EU) 2023/1791)	Introduces binding national contributions to energy savings and mandates "energy efficiency first" across policy and investment decisions.
Energy Performance of Buildings Directive (EPBD, Directive (EU) 2024/1275)	Mandates higher energy performance standards for buildings, including zero-emission buildings and renovation targets.
Industrial and Livestock Rearing Emissions Directive (IED 2.0, Directive (EU) 2024/1785)	Requires permits and emission limits based on Best Available Techniques (BAT) for large industrial installations. The 2024 update tightens standards and expands scope.
Alternative Fuels Infrastructure Regulation (AFIR, Regulation (EU) 2023/1804)	Sets binding targets for the deployment of EV charging and alternative fuel infrastructure along key transport corridors.
Clean Vehicles Directive (Directive (EU) 2019/1161)	Requires public authorities to purchase a minimum share of clean, low-emission vehicles for public transport fleets.
Fuel Quality Directive (FQD, 2009/30/EC)	Sets fuel quality standards and mandates reduction in lifecycle GHG intensity of transport fuels.
CO_2 Emission Standards for Vehicles (Regulation (EU) 2023/851)	Sets fleet-wide CO_2 reduction targets for cars, vans, and heavy-duty vehicles to reduce road transport emissions.
Corporate Sustainability Reporting Directive (CSRD, Directive (EU) 2022/2464)	Requires large and listed companies to disclose detailed sustainability (ESG) data using the EU's reporting standards (ESRS).

3. Gaps between European Green Deal requirements and Belarus legislation and practices

While most policy areas covered by the ten core EU energy and environmental regulations are to some extent addressed in Belarusian law and state strategies, substantial institutional, legal, technical, and capacity gaps remain. These gaps reflect both differences in policy ambition and the absence of enforcement mechanisms comparable to those established in the EU. In particular, Belarus lacks comprehensive regulatory frameworks for carbon pricing, large-scale renewable energy integration, and energy performance in buildings; its environmental permitting and transport decarbonisation systems also remain at early stages of development.

Addressing these gaps would require not only new legislation but also the establishment of independent regulatory bodies, reliable monitoring and reporting systems, and enhanced administrative and technical capacity. The following sub-sections outline the main discrepancies between Belarusian practices and the EU acquis in each policy area. Table 2 summarises the key types of gaps – institutional, legal, technical, and capacity-related – identified across the key European Green Deal legislation.

3.1 Carbon market

Belarus currently does not have a fully operational carbon pricing framework, although the issue of carbon trading has received growing attention in recent years[26]. In 2025, the Belarusian Currency and Stock Exchange (BSCE) and the Ministry of Natural Resources signed a cooperation agreement aimed at developing mechanisms for green finance and carbon trading, including the creation of a trading platform to account for and exchange greenhouse gas emission quotas under a prospective national system[27]. While this initiative represents an initial step toward establishing a domestic carbon market, the framework remains at an early stage of development. Full alignment with the EU ETS would require the establishment of a dedicated carbon market authority, the adoption of comprehensive carbon pricing legislation, and the introduction of robust monitoring, reporting, and verification (MRV) systems across power generation, cement, chemicals, refining, and transport. Institutional capacity constraints and underdeveloped infrastructure present major challenges.

3.2 Renewable energy

Belarus has ratified key international climate agreements, adopted a national Green Economy Action Plan (2021–2025)[28], and increased solar and wind power installed capacity from 13 MW in 2014 to almost 400 MW in 2024[29]. However, the share of modern renewables in Belarus' final energy consumption still accounts for less than 10% and in electricity generation – about 3%[30]. Alignment with RED III[9] would therefore require a major scale-up of renewable energy deployment well beyond current levels, reform of grid infrastructure and permitting systems, and upgrading the existing certificate-of-origin scheme under the Law on Renewable Energy Sources[31] to align with the EU's Guarantees of Origin (GoOs). At the same time, compliance with RED III would offer opportunities for Belarus to reduce reliance on imported fossil fuels, strengthen its energy security, and access EU financial and technical support for the clean energy transition.

3.3 Energy efficiency

Belarusian energy efficiency policy is guided by a solid regulatory foundation, including the Law on Energy Saving, numerous government decrees, and the State Energy Saving Program (2021–2025)[32], which targets an 8% share of renewables in gross energy consumption by 2025 and a 7% reduction in GDP energy intensity compared to 2020 levels. The state concept for the Energy Saving Program for 2026–2030[33] emphasises reducing dependence on imported fuels and expanding the use of domestic energy resources, including electricity from the Belarusian nuclear power plant. In the building sector, Presidential Decree No. 327 (2019)[34] and related regulations promote energy-efficient construction and provide incentives for citizens to improve insulation and heating efficiency. The energy efficiency classes of buildings are regulated by several national technical standards[35]. New housing stock is considerably more efficient than that built before 1996, and national programs envisage further use of biomass, heat pumps, and solar technologies in the residential and communal sectors.

At the same time, Belarus' energy performance framework for buildings appears to rely primarily on technical design standards and efficiency indicators, rather than binding renovation targets or decarbonisation goals. In contrast, the EU's EED[11] and EPBD[14] require legally binding national energy savings targets, annual renovation rates, and the gradual transformation of the national building stock into a zero-emission stock by 2050. Therefore, alignment with these directives would likely involve strengthening monitoring and verification systems, introducing long-term renovation planning, and developing mechanisms to track and certify energy performance more systematically. For Belarus, alignment would imply large-scale renovation programs, stricter codes, and new certification systems.

3.4 Industry and agriculture

Belarus' industrial and agricultural sectors together account for a large share of national greenhouse gas (GHG) emissions, with agriculture alone contributing around 23.6% of total emissions in 2022 (excluding LULUCF)[36]. The country's agricultural policy focuses primarily on increasing production volumes, which can lead to rising emissions, though several measures have been introduced to mitigate this trend. These include improving energy efficiency in farming, using renewable energy sources such as biogas from agricultural waste, and developing the legal and institutional basis for organic farming, which is regulated under the 2018 Law on the Production and Circulation of Organic Products[37]. Organic farming in Belarus is still at an early stage but offers notable potential for reducing GHG emissions through soil carbon retention, reduced use of synthetic fertilisers, and integrated crop–livestock systems. The State Programme "Agrarian Business" (2021–2025)[38] also promotes resource-efficient technologies and the sustainable use of agricultural land, while future initiatives aim to align organic certification systems with international standards such as IFOAM[39].

At the same time, industrial and livestock emissions remain insufficiently regulated. Environmental authorities are under-resourced, and there is no permitting regime based on Best Available Techniques (BAT) comparable to that required under the EU Industrial and Livestock Rearing Emissions Directive (IED 2.0)[17]. Belarus lacks technical systems for applying BAT reference documents (BREFs), automated emissions reporting, and systematic monitoring of large livestock farms, where emissions controls are minimal. Aligning with the IED 2.0 would therefore require modernising the country's industrial permitting framework, developing sector-specific emission benchmarks, strengthening environmental inspection capacity, and expanding oversight to intensive livestock farms. While Belarus has taken initial steps toward improving efficiency and environmental management in both agriculture and industry, achieving full compliance with EU environmental standards would demand substantial institutional, legal, and technical reform.

3.5 Transport

Belarus has taken notable steps toward promoting electromobility and cleaner transport, supported by a series of presidential decrees and government programmes. The first incentives were introduced in 2018 through Presidential Decree No. 273 "On Stimulating the Use of Electric Vehicles"[40], later replaced and expanded by Decree No. 92 of 12 March 2020[41] and amended by Decree No. 447 of 22 November 2021[42]. These acts provide a wide range of fiscal and administrative incentives, including exemption from customs duties, value-added tax (VAT), and transport tax on electric vehicles; reimbursement of VAT for individual buyers; preferential credit terms; investment deductions for legal entities; and government procurement preferences for electric vehicles. Complementary measures were adopted to stimulate domestic production and infrastructure. The Programme for the Development of Electric Transport (2021–2025)[43] aims to support the design and manufacture of electric vehicles and components, alongside the rollout of a national charging network[44]. These initiatives have facilitated steady growth in the sector: the number of electric vehicles increased from around 1,000 in 2020

to approximately 24,000 by the end of 2024, with projections of up to 100,000 EVs by 2027[45]. The number of charging stations expanded from roughly 250 in 2020 to 1,200 by 2024 and is expected to exceed 2,800 by 2028.

Despite this progress, Belarus still lacks an overarching legal framework or coordinating authority for transport electrification, as well as binding national targets for alternative fuels infrastructure. Technical standards, a unified EV charging database, and grid-readiness planning remain under development. Alignment with the AFIR[18] would require establishing a comprehensive institutional and legal basis, introducing standardisation protocols, developing hydrogen refuelling capacity along major transport corridors, and modernising airport and port facilities to provide shore-side and ground power supply.

Similarly, there is no binding requirement for public procurement of low- or zero-emission vehicles and no centralised monitoring of municipal fleets. Local governments face financial and technical constraints in renewing vehicle stock. Bringing Belarusian policy closer to the Clean Vehicles Directive[19] would thus require establishing procurement thresholds and introducing transparent reporting systems.

Fuel standards are regulated domestically, but national norms do not yet fully align with the Fuel Quality Directive[20], which sets limits on sulphur, aromatics, and lifecycle greenhouse gas emissions. Systems for verifying and reporting fuel GHG intensity remain limited, and refineries would need to modernise operations to meet EU blending and sustainability requirements.

Finally, there is no emissions testing regime in Belarus comparable to the EU's, and vehicle import and taxation policies are not yet linked to CO_2 performance. Full alignment with CO_2 emission performance standards for vehicles[23] would therefore require creating certification and testing capacities, reforming import and excise frameworks, and continuing investment in charging infrastructure to support the gradual electrification of transport.

3.6 Corporate sustainability reporting

Belarus has begun developing frameworks for non-financial and sustainability reporting within the broader concept of sustainable development, as outlined in the National Sustainable Development Strategy until 2035[46] and the State Programme for Public Finance Management[47]. These initiatives aim to improve corporate disclosure on environmental, social, and governance (ESG) aspects, reflecting a growing recognition of corporate responsibility. However, the adoption of ESG practices remains uneven and largely voluntary. They are mainly applied by enterprises engaged with international partners or financial institutions, while many domestic companies – especially small and medium-sized enterprises – lack the awareness, capacity, and incentives to implement structured ESG reporting. The absence of a legal requirement for sustainability reporting, a national supervisory authority, and a digital reporting infrastructure further limits progress. In this context, alignment with the Corporate Sustainability Reporting Directive[25] (CSRD, Directive 2022/2464/EU) would require Belarus

to introduce binding disclosure rules, develop standardised reporting formats based on EU Sustainability Reporting Standards (ESRS), and build institutional and professional capacity for ESG data collection, verification, and external assurance.

3.7 Summary

Overall, Belarus has made measurable progress in improving its environmental and energy policy frameworks – particularly in renewable energy deployment, energy efficiency, and the promotion of electromobility. However, the gap between current practices and the European Green Deal acquis remains wide, especially in terms of enforcement, institutional independence, and technical capacity.

Bridging this gap would require a comprehensive regulatory overhaul, including the establishment of independent authorities for carbon pricing and energy efficiency, harmonisation of building and industrial standards with EU norms, and stronger data systems for emissions, energy use, and corporate sustainability. The process of alignment could, however, generate significant co-benefits: enhanced energy security, improved competitiveness, access to EU financing mechanisms, and the gradual integration of Belarusian industries into European clean technology and sustainability value chains.

Table 2. Summary of gaps between Belarusian and EU Green Deal legislation

Legislation	Institutional gap	Legal gap	Technical gap	Capacity gap
ETS (EU Emissions Trading System)	No dedicated carbon market authority or registry	No carbon pricing law or emissions trading legislation	No MRV (Monitoring, Reporting, Verification) protocols or emissions registry	Limited expertise in emissions trading; underdeveloped compliance infrastructure
RED III (Renewable Energy Directive)	No central authority coordinating renewable energy targets or cross-sector integration	Certificate-of-origin scheme not aligned with EU Guarantees of Origin (GoOs) system	Grid integration challenges for modern RES; insufficient tracking of RES share in heating and transport	Limited administrative capacity for RES auctions, permitting, and support schemes

Legislation	Institutional gap	Legal gap	Technical gap	Capacity gap
EED (Energy Efficiency Directive)	Minimal gap. Dedicated state agency for energy efficiency	Energy saving goals are established and enforced but should be harmonised with the EU targets and methodologies	Industrial and municipal practices remain energy-intensive and inefficient, necessitating technology transfer to achieve EU-level performance	Minimal gap. Relatively high capacity and experience among government and industry experts
EPBD (Energy Performance of Buildings Directive)	Municipal authorities lack technical support in renovation planning and implementation	Building codes do not reflect zero-emission standards	Limited availability of data on building energy performance	Minimal gap. Relatively high capacity and experience among government and industry experts
IED 2.0 (Industrial and Livestock Emissions Directive)	Environmental control agencies under-resourced; fragmented institutional oversight	Absence of BAT-based permitting regime; limited access to justice and compensation for health damages from environmental violations	Low automation of emissions data	Minimal control of intensive livestock farms
AFIR (Alternative Fuels Infrastructure Regulation)	No coordinating authority or strategic plan for nationwide EV & alternative fuels infrastructure	No binding legal mandates or national targets for EV charging, hydrogen refuelling, or shoreside supply	Weak grid readiness; no unified EV charging database	Weak private-public partnerships
Clean Vehicles Directive	No institutional body responsible for enforcing clean procurement in public fleets	No legal obligation for public authorities to procure low- or zero-emission vehicles	No central tracking of fleet greening	Limited municipal capacity and funding for vehicle fleet renewal

Legislation	Institutional gap	Legal gap	Technical gap	Capacity gap
FQD (Fuel Quality Directive)	No single national authority dedicated to lifecycle GHG tracking	No legal requirement for lifecycle GHG intensity reduction in fuels	Limited capacity for verification and reporting of fuel GHG intensity; absence of harmonised biofuel blending rules	Limited experience with EU-level sustainability certification and reporting procedures
CO2 Emission Standards for Vehicles	Type-approval and emissions testing integrated within the EAEU framework, not fully aligned with EU CO2 performance regulation	No adoption of EU-based CO2 reduction targets for light- and heavy-duty vehicles	No adoption of EU-based CO2 reduction targets for light- and heavy-duty vehicles	Limited experience with CO2-based compliance and lifecycle emissions analysis
CSRD (Corporate Sustainability Reporting Directive)	No designated supervisory or assurance body for sustainability reporting	ESG disclosure not mandatory; no reporting standards or metrics	No digital infrastructure for data collection or audit verification	Low ESG awareness among firms; shortage of trained auditors and consultants

4. Potential impacts on Belarus economy of harmonisation with the European Green Deal

Adopting the EU Green Deal (EGD) acquis would have uneven implications for Belarus' main economic sectors, reflecting differences in their energy intensity, trade orientation, and regulatory exposure. The country's economy remains dominated by manufacturing (≈25% of GDP), followed by agriculture (≈7.8%)[1], transport (≈8%), construction (≈7%), and electricity, gas, steam, and air-conditioning supply (≈4%). Given their high energy consumption and strong export orientation, these sectors would face the most immediate pressures to align with EU energy, climate, and environmental legislation.

This section assesses the economic impacts of harmonisation at the sectoral level, focusing on cost structures, trade opportunities, technological transitions, and access to EU financial and technical support. A systematic mapping of the EGD legislation shows that several core EU regulations and directives, including the EU Emissions Trading System (ETS), Renewable Energy Directive (RED III), Industrial and Livestock Rearing Emissions Directive (IED 2.0), Energy Efficiency and Energy Performance of Buildings Directives (EED and EPBD), Alternative Fuels Infrastructure Regulation (AFIR), and Corporate Sustainability Reporting Directive (CSRD), would directly or indirectly affect these sectors. Table 3 summarises the key EU Green Deal regulations and directives[2] most relevant to Belarus' five largest economic sectors. The following subsections analyse the sectoral implications in greater detail.

Table 3. Key EU Green Deal legislation relevant to Belarus' main economic sectors

Sector	Key EGD legislation
Crop and Animal Production, Hunting and Related Service Activities (7.8%)	- Industrial and Livestock Rearing Emissions Directive (IED 2.0 2024/1785/EU) - Renewable Energy Directive (RED III 2023/2413/EU) - EU Emissions Trading System (ETS) - Corporate Sustainability Reporting Directive (CSRD 2022/2464/EU)

[1] 6.1% according to the President's Administration

[2] Only legislation directly related to energy, climate, and environmental performance has been retained, while broader EU sectoral directives (e.g., on waste, water, or biodiversity) fall outside the scope of this analysis.

Sector	Key EGD legislation
Manufacturing (24.9%)	- EU Emissions Trading System (ETS) - Industrial and Livestock Rearing Emissions Directive (IED 2.0 2024/1785/EU) - Energy Efficiency Directive (EED 2023/1791/EU) - Fuel Quality Directive (2009/30/EC) - Corporate Sustainability Reporting Directive (CSRD 2022/2464/EU)
Electricity, Gas, Steam & Air Conditioning Supply (4.1%)	- EU Emissions Trading System (ETS) - Renewable Energy Directive (RED III 2023/2413/EU) - Energy Efficiency Directive (EED 2023/1791/EU) - Energy Performance of Buildings Directive (EPBD 2024/1275/EU) - Industrial Emissions and Livestock Rearing Directive (IED 2.0 2024/1785/EU) - Corporate Sustainability Reporting Directive (CSRD 2022/2464/EU)
Construction of Residential and Non-Residential Buildings (6.7%)	- Energy Performance of Buildings Directive (EPBD 2024/1275/EU) - Energy Efficiency Directive (EED 2023/1791/EU) - EU Emissions Trading System (ETS, indirect via materials) - Renewable Energy Directive (RED III 2023/2413/EU) - Corporate Sustainability Reporting Directive (CSRD 2022/2464/EU)
Land Transport and Transport via Pipelines (7.6%)	- EU Emissions Trading System (ETS 2, from 2027) - CO_2 Vehicle Emission Standards (Regulations 2019/631 & 2019/1242) - Alternative Fuels Infrastructure Regulation (AFIR 2023/1804/EU) - Clean Vehicles Directive (2019/1161/EU) - Fuel Quality Directive (2009/30/EC) - Renewable Energy Directive (RED III 2023/2413/EU) - Corporate Sustainability Reporting Directive (CSRD 2022/2464/EU)

4.1 Crop and animal production, hunting and related service activities

Agriculture remains one of Belarus' key economic sectors, contributing roughly 8% of GDP and playing a central role in rural employment and export revenues. Alignment with the EU Green Deal acquis and specifically with the Industrial and Livestock Rearing Emissions Directive (*IED 2.0*), Renewable Energy Directive (*RED III*), Energy Efficiency Directive (*EED*), and the Corporate Sustainability Reporting Directive (*CSRD*) would significantly reshape the sector's cost structure, production practices, and market access conditions.

From a **cost perspective**, compliance with EU environmental and animal welfare standards would require substantial investment. Compliance with the *IED 2.0* would extend environmental permitting requirements to large livestock installations and introduce Best Available Techniques (BAT) for manure management, waste-gas treatment, and nutrient recovery. These obligations would require substantial investments in abatement technology, monitoring equipment, and administrative capacity. The *RED III* would increase near-term costs through integration of biogas and biomass facilities, installation of metering and certification systems, and participation in Guarantees of Origin (GoO) schemes. Similarly, compliance with the *EED* would necessitate efficiency upgrades in irrigation, ventilation, and storage systems, while the *ETS* would indirectly raise energy and fertiliser prices. Finally, the *CSRD* would impose new reporting obligations on large agri-food enterprises exporting to or partnering with the EU, adding administrative and verification costs.

At the same time, harmonisation would open **new trade and investment opportunities**. Meeting EU sustainability and traceability criteria could provide Belarusian producers with access to high-value organic and sustainable agri-food markets, particularly within the EU. The sector could also diversify into bioenergy production, especially biogas derived from agricultural residues and livestock waste, which aligns with both *RED III* and circular economy objectives. Furthermore, verified sustainability performance under *CSRD*-aligned reporting could enhance the export reputation of Belarusian producers and attract environmentally conscious investors.

Technological adaptation would be crucial to maintain competitiveness. Transitioning toward precision farming, low-emission fertilisation methods, and integrated pest management could help reduce costs over time and enhance yields while meeting environmental benchmarks, though they require capacity building and credit access.

In terms of **international cooperation and financing**, Belarus could benefit from experience-sharing and funding through pre-accession rural development programmes (IPARD), Horizon Europe partnerships on agri-tech and bioeconomy innovation, and European Green Deal diplomacy mechanisms supporting sustainable agriculture in the EU neighbourhood. Participation in international climate-finance or technical-assistance initiatives (e.g. EBRD, FAO, UNDP) could further ease the investment burden of harmonisation.

Overall, while short-term adjustment costs could be substantial, aligning Belarusian agricultural practices with the EU's environmental and sustainability standards could strengthen long-term resilience, productivity, and

market integration. The sector's compliance trajectory would also be affected by other EU legislation, including the Nitrates Directive (91/676/EEC)[48], Water Framework Directive (2000/60/EC)[49], the Sustainable Use of Pesticides Directive (2009/128/EU)[50], and the Organic Farming Regulation (2018/848/EU)[51], all of which shape environmental and land-use practices in the EU context.

4.2 Manufacturing

The manufacturing sector, accounting for about 25% of Belarus' GDP, represents the core of the national economy and would face some of the most complex adjustments in aligning with the EU Green Deal acquis. Owing to its diversity – from food processing and textiles to chemicals, metals, and machinery – harmonisation would result in uneven impacts across subsectors. The most relevant EU instruments include the EU Emissions Trading System (ETS), the Industrial Emissions Directive (IED 2.0), the Energy Efficiency Directive (EED), the Fuel Quality Directive (FQD) (for petroleum refining), and the Corporate Sustainability Reporting Directive (CSRD). While harmonisation with the EGD acquis would entail substantial upfront costs and administrative burdens for Belarusian manufacturers, especially in energy-intensive subsectors, it also offers significant opportunities for industrial modernisation, cleaner technologies, and deeper integration into European sustainable value chains. To illustrate these dynamics, this section focuses on several key subsectors that are both economically significant and directly exposed to EU energy and environmental legislation, namely the manufacture of food products, coke and refined petroleum, chemicals, non-metallic mineral products, and machinery and equipment.

Manufacture of food products (5.8%)

Producers in the food industry would face increased **costs** associated with energy and refrigeration efficiency standards, wastewater management, and compliance with packaging and waste regulations under the Energy Efficiency Directive (EED) and Corporate Sustainability Reporting Directive (CSRD). However, alignment would also open **access to premium EU markets** that demand traceability and sustainability certification, strengthening the competitiveness of Belarusian food exporters. The transition would encourage the **adoption of electrified process** heat systems, clean refrigerants, and anaerobic digestion of organic waste for energy recovery. These efforts could be supported by participation in EU Horizon and LIFE programmes promoting circular economy models and food waste reduction.

Manufacture of coke and refined petroleum (1.1%)

The petroleum refining industry would be among the most affected by EU alignment, primarily due to compliance with the EU Emissions Trading System (ETS) and Fuel Quality Directive (FQD). These instruments would require purchasing emission allowances, installing air pollution controls, and meeting stricter lifecycle greenhouse gas intensity standards for fuels. While long-term competitiveness in EU markets may decline due to

decarbonisation pressures, the transition could stimulate technological upgrading through hydrogen integration, carbon capture, utilisation and storage (CCUS), and process electrification. Although access to EU funds would be limited, EBRD and IFC climate finance mechanisms could support pilot decarbonisation projects in this subsector.

Manufacture of chemicals (4.2%)

Chemical production, another energy-intensive subsector, would face high ETS compliance costs and obligations to control nitrous oxide (N_2O) emissions. Compliance with the IED 2.0 and CSRD would further increase monitoring and reporting obligations but could also improve environmental performance and brand reputation. In the longer term, the development of green hydrogen feedstocks, electrification of processes, and solvent substitution would enhance efficiency and lower emissions. The EU ETS Innovation Fund and Horizon Europe programmes on clean industrial technologies could provide avenues for technological cooperation and funding.

Manufacture of other non-metallic mineral products (1.4%)

Producers of cement, glass, and ceramics would be highly exposed to carbon pricing and emissions control requirements under the ETS and IED 2.0, necessitating investments in flue gas treatment, alternative binders, and waste heat recovery. However, growing demand in the EU for low-carbon construction materials presents an opportunity for export diversification. Technological solutions such as CCUS, clinker substitution, and electrified kilns would be critical for maintaining competitiveness. Participation in the ETS Innovation Fund and Clean Energy Transition partnerships could help offset transition costs and foster cooperation with EU industrial clusters.

Manufacture of machinery and equipment (1.5%)

Although less energy-intensive, this subsector would face indirect compliance costs associated with ESG reporting and material footprint tracking under the CSRD. However, harmonisation could enhance the international competitiveness of Belarusian manufacturers by positioning them as suppliers of clean-tech equipment for the green transition. Technological innovation would centre on design for repair, durability, and recyclability, enabling integration into the EU's circular manufacturing ecosystem. Access to Horizon Europe industrial calls and green manufacturing clusters would offer valuable opportunities for cooperation, innovation, and investment.

4.3 Electricity, gas, steam and air-conditioning supply

The electricity, gas, steam, and air-conditioning supply sector, contributing around 4.1% of Belarus' GDP, lies at the heart of the country's low-carbon transition challenge. Aligning this sector with the EGD acquis would entail profound structural and regulatory changes, given its dependence on fossil-based generation and the emerging role of the Belarusian nuclear power plant in national energy supply. The most relevant EU instruments include the EU Emissions Trading System (ETS), the Renewable Energy Directive (RED III), the Energy Efficiency Directive (EED), the Energy Performance of Buildings Directive (EPBD), and the Industrial Emissions Directive (IED 2.0).

From a **cost** perspective, the introduction of an ETS-equivalent mechanism would significantly increase operational expenses for fossil-fuel power plants through the purchase of emission allowances. Compliance with IED 2.0 would further require investment in pollution-control equipment, modernisation of large combustion plants, and the gradual reduction of pollutant emissions. The EED would also impose stricter efficiency obligations on district heating and cooling networks, requiring large-scale upgrades in transmission systems and heat supply infrastructure to reduce losses and enhance system performance. Together, these measures would raise short-term costs but drive long-term efficiency gains and environmental benefits.

In terms of **trade and economic activity**, integration with EU energy markets could generate new opportunities. Belarus' potential synchronisation and interconnection with the European electricity grid (ENTSO-E) would facilitate cross-border electricity trade, particularly if low-carbon or renewable generation expands. Alignment with RED III would open possibilities for developing renewable-based district heating, biomass co-firing, and small-scale solar and wind installations, contributing to both energy diversification and energy security. These measures would also help reduce the country's reliance on imported fossil fuels, aligning with broader EU objectives of decarbonisation and strategic autonomy.

The **technological transformation** required for compliance would involve a progressive shift from fossil-based generation to renewable and low-carbon energy sources, increased deployment of energy storage, and enhanced grid flexibility through digitalisation and demand-side management. Decarbonising district heating would likely depend on waste heat recovery, heat pumps, and the integration of biomass and solar thermal technologies, bringing Belarusian practices closer to the standards envisaged in the revised EED and EPBD.

Finally, several **EU and international funding mechanisms** could support this transition. The EU ETS Innovation Fund, the European Investment Bank (EIB), and instruments under the Neighbourhood, Development and International Cooperation Instrument (NDICI) could provide financial and technical assistance for renewable deployment, grid modernisation, and heating system upgrades. Cooperation under Horizon Europe and regional partnerships on energy efficiency could further facilitate knowledge transfer and the diffusion of best practices.

In sum, while the transition of Belarus' electricity and heating sector toward EU standards would entail substantial capital investment and regulatory reform, it would also offer opportunities for diversification, export

integration, and technological modernisation consistent with the European Green Deal's long-term objectives. The sector's compliance trajectory would additionally be shaped by other EU legislation, including the Water Framework Directive (2000/60/EC)[49], Air Quality Directive (2008/50/EC)[52], Environmental Liability Directive (2004/35/EC)[53], and the Security of Gas Supply Directive (2017/1938/EU)[54], which together govern

4.4 Construction of residential and non-residential buildings

The construction sector, which accounts for about 6.7% of Belarus' GDP, would experience significant transformation under alignment with the EU Green Deal acquis, particularly through the Energy Performance of Buildings Directive (EPBD), the Energy Efficiency Directive (EED), the Renewable Energy Directive (RED III), and, indirectly, the EU Emissions Trading System (ETS) via the carbon footprint of construction materials. The sector is central to achieving energy savings, emissions reductions, and the broader decarbonisation of the built environment.

In terms of **cost structure**, compliance with EU standards would initially lead to higher upfront construction costs, reflecting the need for better insulation materials, high-efficiency heating and cooling systems, and the use of low-carbon building materials such as green cement and recycled steel. However, these investments would generate long-term savings in energy bills and operational costs, while improving the durability and energy performance of the building stock. Meeting the requirements of the revised EPBD, which sets the goal of transforming the building stock into zero-emission buildings by 2050, would necessitate introducing stricter design codes and lifecycle performance standards.

The process of harmonisation would also stimulate **new trade** and **economic activities**. Growing demand for energy-efficient building components, windows, insulation, heat pumps, and smart control systems, would open opportunities for Belarusian manufacturers and construction firms to supply both domestic and EU markets. The renovation segment in particular could expand rapidly, as compliance with EU standards encourages the creation of a dedicated building-renovation industry capable of delivering large-scale energy retrofits and district-level efficiency projects.

Technological transition in the sector would involve the diffusion of Building Information Modelling (BIM) for project planning and energy optimisation, as well as wider adoption of passive-house technologies, heat pumps, and renewable-integrated building systems such as rooftop solar PV. Implementation of digital tools for energy monitoring and predictive maintenance would further enhance efficiency and reduce lifecycle emissions.

In terms of **financial and cooperative opportunities**, alignment with the EU framework could unlock access to EU Green Deal renovation initiatives, the European Investment Bank's energy efficiency financing, and municipal support schemes promoting sustainable urban development. Partnerships under Horizon Europe and regional energy-efficiency programmes could assist in capacity building, technology transfer, and workforce training in modern construction methods.

Overall, alignment of Belarus' construction sector with the EU Green Deal acquis would require significant investment and institutional adaptation but would ultimately lead to a more efficient, resilient, and competitive building industry. The sector's compliance trajectory would also be shaped by other EU legislation, including the Waste Framework Directive (2008/98/EC)[55], Landfill Directive (1999/31/EC)[56], and Environmental Impact Assessment Directive (2011/92/EU)[57], which together establish broader standards for waste reduction, recycling, and environmental protection in the construction lifecycle.

4.5 Land transport and transport via pipelines

The transport sector, accounting for around 7.6% of Belarus' GDP, plays a crucial role in domestic connectivity and cross-border trade but would face one of the most complex and costly transitions under alignment with the EU Green Deal acquis. The key pieces of legislation affecting this sector include the EU Emissions Trading System (ETS 2), the Alternative Fuels Infrastructure Regulation (AFIR), the Clean Vehicles Directive, the Fuel Quality Directive (FQD), the CO_2 Emission Performance Standards for Vehicles, and, indirectly, the Renewable Energy Directive (RED III) through biofuel blending requirements.

In terms of **cost structure**, alignment with these instruments would increase fuel and operational costs due to the gradual inclusion of road transport in the ETS 2, which introduces a carbon price for fuel distributors from 2027. This would affect both freight and passenger transport, incentivising the transition to lower-emission vehicles but also raising costs for consumers and businesses in the short term. In addition, compliance with the CO_2 emission performance standardsand the Clean Vehicles Directive would necessitate large-scale fleet replacement, particularly in public transport and logistics, as older ICE vehicles are phased out in favour of electric and alternative-fuel options.

Despite higher upfront costs, alignment could create **substantial trade and business opportunities**. By meeting EU fuel quality and emissions standards, Belarusian logistics and freight companies could integrate more easily into EU-certified supply chains, gaining access to green corridors and international transport markets. The development of electric vehicle (EV) servicing and maintenance industries and the expansion of alternative fuel distribution networks could also generate new domestic value chains, stimulating employment and technological innovation.

Technological transition would center on the electrification of vehicle fleets, deployment of compressed and liquefied natural gas (CNG/LNG) trucks as interim solutions, and the introduction of route optimisation and digital fleet management systems to reduce emissions and improve efficiency. The AFIR requires the installation of sufficient EV charging and hydrogen refuelling infrastructure along major transport corridors, which would entail extensive investment in both grid capacity and network planning.

In terms of **cooperation and financial support**, Belarus could potentially benefit from access to EU transport and energy transition funds, such as the Connecting Europe Facility (CEF Transport), which supports cross-border infrastructure projects, and financing mechanisms linked to the AFIR and the European Green

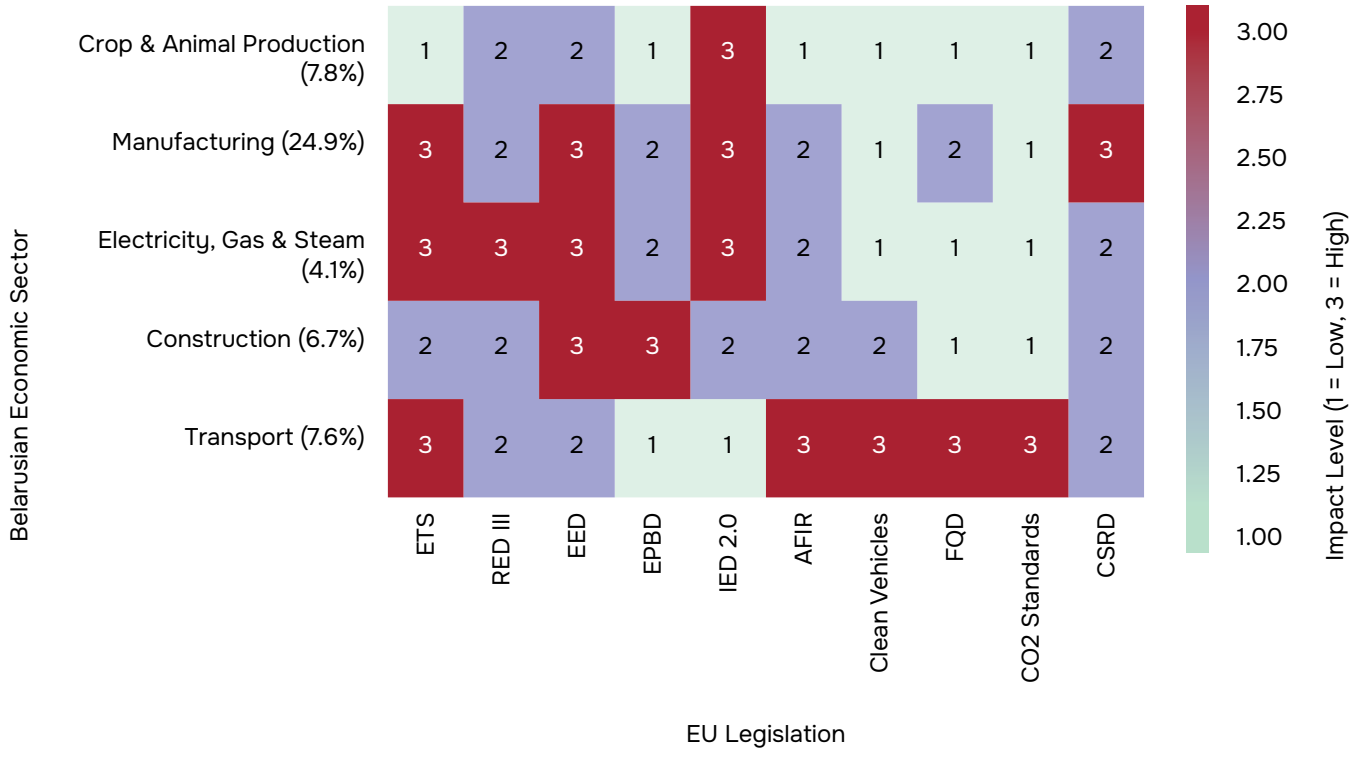
Deal diplomacy on clean mobility. These programmes could facilitate technology transfer, pilot projects on electric and hydrogen mobility, and public–private partnerships to expand charging infrastructure.

Overall, the transport sector's adaptation to the EU Green Deal acquis would involve considerable upfront costs and systemic modernisation, but it also offers a path toward greater integration with EU logistics networks, reduced fossil-fuel dependence, and improved environmental performance of Belarus' mobility system. The sector's compliance trajectory would further be influenced by other EU legislation, including the Air Quality Directive (2008/50/EC)[52], Noise Directive (2002/49/EC)[58], and Environmental Liability Directive (2004/35/EC)[53], which establish complementary standards for emissions, noise pollution, and environmental accountability in the EU transport context.

4.6 Summary

Harmonisation with the European Green Deal (EGD) acquis would require a far-reaching transformation across Belarus' productive sectors, with impacts varying according to each sector's energy intensity, carbon footprint, and trade exposure. Table 4 summarises how the main EGD regulations intersect with Belarus' key economic sectors, identifying the principal channels of impact, including carbon pricing, energy efficiency, renewable energy deployment, and transport decarbonisation. Figure 1 complements this analysis by visualising the relative level of impact of each EU regulation across sectors, highlighting the uneven effects that alignment with the EGD acquis would have on the Belarusian economy.

Figure 1. Sectoral impact matrix: Level of impact of EU Green Deal Legislation on Belarusian economic sectors



This heatmap illustrates the relative level of impact (1 = low, 3 = high) of ten key EGD legislative instruments across the main sectors of the Belarusian economy. Energy-intensive and export-oriented sectors – particularly manufacturing and electricity, gas, and steam supply – are most affected due to exposure to the EU ETS, EED, and IED 2.0. The transport sector is influenced by the widest range of instruments, including AFIR, Clean Vehicles, and CO_2 Emission Standards, reflecting the scale of infrastructure and fleet transformation required. Agriculture and construction experience moderate but diverse effects linked to renewable energy integration and building efficiency.

The **energy-producing and energy-intensive sectors**, including electricity generation, petroleum refining, chemicals, cement, and metals, would face the highest immediate compliance costs. These sectors fall under several core instruments of the Green Deal, most notably the EU Emissions Trading System (ETS), the Industrial Emissions Directive (IED 2.0), and the Energy Efficiency Directive (EED). Compliance would require extensive investment in emissions monitoring, efficiency upgrades, and clean-technology deployment. While costly, these measures would stimulate process optimisation and could position Belarusian industries for participation in low-carbon regional value chains.

The **transport sector**, which represents nearly 8 % of GDP, would be affected by at least five key EU regulations, including ETS 2, AFIR, the Clean Vehicles Directive, the Fuel Quality Directive, and CO_2 Emission Standards for Vehicles. Harmonisation would involve large-scale investment in electric vehicle charging networks, hydrogen refuelling corridors, and fleet modernisation. Though expensive, these reforms could strengthen Belarus' integration into EU logistics networks and stimulate domestic innovation in electric mobility and alternative-fuel technologies.

The **construction sector** (≈ 6.7 %) would experience high capital needs in the short term, primarily due to the implementation of the Energy Performance of Buildings Directive (EPBD) and EED requirements for nearly zero- or zero-emission buildings. However, these costs would be offset over time by lower operational energy demand, new business opportunities in energy-efficient renovation, and access to EU financial mechanisms under the Green Deal Renovation Wave and the European Investment Bank's efficiency programmes.

In **agriculture** (≈ 7.8 %), alignment with the RED III and IED 2.0 would tighten environmental standards related to fertiliser use, manure management, and emissions from large livestock farms. Yet, these same reforms could open opportunities for expansion into organic agriculture, biogas production, and sustainable agri-food exports, supported by EU rural-development and innovation funds.

Finally, the Corporate Sustainability Reporting Directive (CSRD) would extend across all major industries, requiring large and listed companies to disclose environmental, social, and governance (ESG) data according to EU standards. This would impose new administrative obligations but also improve corporate transparency, investor confidence, and access to green finance.

While the transition to the EU acquis would inevitably be costly and administratively demanding, it could ultimately deliver substantial economic and environmental dividends. By modernising its industrial base, improving energy efficiency, and building institutional capacity, Belarus could strengthen its competitiveness, reduce import dependence, and attract sustainable investment. The key challenge will lie in sequencing reforms, mo-

bilising financial support, and building regulatory expertise to ensure that harmonisation becomes not only a compliance exercise but also a driver of long-term development and green growth.

Table 4. Mapping EGD legislation to the most-affected Belarusian economic sectors

Legislation	Most-affected Belarusian sectors	Primary channel of impact
ETS & ETS 2 (Emissions Trading System)	Electricity, gas, steam & air-conditioning (4.1%) Petroleum refining (1.1%) Chemicals (4.2%) Non-metallic minerals (1.4%) Fabricated metals (1.1%)	Carbon pricing and emission-allowance costs; incentives for fuel switching and efficiency
RED III (Renewable Energy Directive)	Electricity, gas, steam (4.1%) Crop & animal production (7.8%) Transport (7.6%) Construction (6.7%)	Renewable-energy targets in power, heating, transport biofuels, and on-site generation
EED (Energy Efficiency Directive)	Manufacturing (24.9%) Construction (6.7%) Transport (7.6%) Electricity & gas (4.1%)	Binding energy-savings targets, audits, and retrofit obligations for buildings and industrial processes
EPBD (Energy Performance of Buildings Directive)	Construction (6.7%) Electricity & gas (4.1%) Manufacturing (24.9%)	Zero-emission building standards, energy-performance certification, and long-term renovation strategies
IED 2.0 (Industrial Emissions Directive)	Manufacturing (24.9%) – esp. petroleum (1.1%), chemicals (4.2%), cement (1.4%); Crop & animal production (7.8%)	Stricter industrial and intensive livestock farms permitting and pollution control based on BAT
AFIR (Alternative Fuels Infrastructure Regulation)	Transport (7.6%) Electricity & gas (4.1%) Construction (6.7%)	EV charging and hydrogen refuelling infrastructure; interoperability and grid-integration standards

Clean Vehicles Directive	Transport (7.6%)	Binding procurement targets for low- and zero-emission public-sector vehicles
FQD (Fuel Quality Directive)	Petroleum refining (1.1%) Transport (7.6%)	Reduction of GHG intensity in fuels; stricter blending and reporting requirements for refiners and importers
CO_2 Standards for Vehicles	Transport (7.6%)	Phase-out of internal-combustion vehicles; fleet modernisation and infrastructure investment
CSRD (Corporate Sustainability Reporting Directive)	Manufacturing (24.9%) Petroleum (1.1%) Electricity & gas (4.1%) Construction (6.7%) Transport (7.6%)	Mandatory ESG disclosures for large and listed companies; new auditing and reporting infrastructure

5. Belarus' potential for low-carbon transition

This section assesses Belarus' broader potential for low-carbon development, focusing on electricity, heating, energy efficiency, and transport electrification. It draws on current progress, policy targets, and long-term opportunities for harmonisation with the European Green Deal (EGD) acquis.

5.1 Low-carbon electricity expansion[3]

The Ministry of Energy has set renewable energy targets of 7% by 2025. However, the 7 % share was already reached in 2018, and renewable deployment has since stagnated. Electricity accounts for about 15 % of final energy consumption, and while the commissioning of the Astravets Nuclear Power Plant has encouraged some electrification, the country's power mix remains highly carbon-intensive, with the share of low-carbon generation being still lower than in the majority of EU Member States[59].

Despite the addition of nuclear capacity, Belarus' electricity generation emits around 280 gCO_2eq/kWh[60], compared with the EU average of 207 gCO_2eq/kWh[61]. In 2023, natural gas supplied 61 % of generation, nuclear 36 %, and renewables only 3%[30]. Renewable generation is dominated by bioenergy (0.52 TWh), hydropower (0.37 TWh), solar (0.21 TWh), and wind (0.18 TWh). Since 2022, growth has stalled owing to excess supply from Astravets, low feed-in tariffs, restrictive quotas, and weak investment incentives[62]. These barriers, combined with outdated policy targets, leave limited scope for near-term renewable expansion[63].

Reliable assessments of long-term renewable potential are lacking. The Strategy for the Development of the Energy Potential of the Republic of Belarus[64,65] estimated technical wind resources at 2.4 TWh per year – around 12 times current output but still small compared with total generation of 40 TWh. IRENA identified modest wind and solar resources by global standards, with solar-thermal applications offering localised potential for space and water heating[63,66]. Hydropower potential is estimated at 2.3 TWh[64,65]. Taken together, it is unlikely that renewables alone can cover the electricity demand in the country, but these figures require revision using modern datasets.

The prospect of a second nuclear power plant has been recently discussed[67] suggesting that nuclear expansion may remain the dominant strategy over large-scale renewables. In the medium term, this pathway has

[3] The main source of energy statistics in Belarus has been the annual "Energy Balance" report published by the National Statistical Committee. However, the committee stopped publishing the digest in 2021, and the information presented below is a summary of various sources.

two implications for prospective EU integration: (1) the export potential of surplus electricity and (2) the need for nuclear-safety alignment. Electricity exports to the EU were halted in 2020 after Baltic transmission operators suspended parallel operation with Belarus and Russia, citing unaddressed safety concerns at Astravets. Any future resumption would require renewed cooperation with the IAEA and ENSREG and compliance with EURATOM safety standards and the Nuclear Safety Directive (2009/71/EURATOM, amended by 2014/87/EURATOM[68]. Support for such alignment could come from the EU Instrument for Nuclear Safety Co-operation[69], which finances safety upgrades, waste management, and regulatory strengthening in partner countries.

5.2 Low-carbon heating and energy efficiency

Given Belarus's high energy intensity and dependence on imported fossil fuels, improving energy efficiency is central to both decarbonisation and long-term energy security. Industry (33%) and households (27%) account for the largest shares of final energy consumption, and roughly half of this energy is used for heat – making the efficiency of heat supply and demand critical to reducing emissions.

In terms of **supply**, most heat in Belarus is produced by combined heat-and-power plants (58%) and boilers (34%), with the remainder provided by waste heat and a small share of solar and geothermal energy (0.02%). The majority of installations rely on imported natural gas, while around 10 % of generation comes from bioenergy – mainly solid biomass and, to a lesser extent, biogas. With extensive forest cover (around 40%) and significant agricultural residues, bioenergy remains the only renewable source that has shown consistent growth. The Strategy for the Development of the Energy Potential of the Republic of Belarus[64,65] estimated solid-biomass potential at 82 000 Tcal per year, exceeding total national heat consumption of 63 000 Tcal. However, IRENA stresses the need for updated assessments of feedstock quality, seasonal availability, and sustainability to support a viable biomass market[63]. Given Belarus' extensive district-heating infrastructure, a low-carbon heat supply could develop relatively quickly once biomass markets mature.

On the **demand** side, space heating accounts for around half of residential energy use, largely due to the ageing and inefficient building stock. Although energy-efficiency classifications, thermal passports, and related regulations have been introduced since the late 1990s, most buildings pre-date these standards. As a result, older buildings typically consume twice as much energy per square metre as new ones. Accelerated retrofitting with improved insulation, glazing, and heat-metering could therefore deliver significant near- and long-term energy savings.

Energy use in **industry** is also substantial. Large energy-intensive enterprises (consuming over 1 500 TCE) are required to undergo mandatory audits every five years under the Law on Energy Saving[70], with further plans to introduce the requirement of energy-management systems aligned with ISO 50001[71]. However, the domestic market for energy-performance contracting remains limited: energy service companies (ESCOs) operate mainly in the public sector, while residential and industrial markets are undeveloped. This points to the need for clearer regulation and the transfer of European experience in energy-performance services.

Long-term energy sector planning acknowledges the need for increasing the efficiency of energy consumption. The draft National Sustainable Development Strategy until 2040[71] identifies energy efficiency as a central goal. Current plans include the electrification of household energy use, modernisation of multi-apartment buildings, and the development of "smart, energy-efficient cities". For 2031–2040, the Strategy foresees widespread installation of individual heat-metering devices and integrated monitoring systems for heat, electricity, and gas. A small-scale pilot of smart heating – implemented with UNDP/GEF support[72] in 2018 – demonstrated the feasibility of such systems. Broader access to EU funding and closer alignment with EU energy-efficiency standards could significantly accelerate their roll-out.

Overall, there remains considerable potential for additional energy-efficiency measures that could accelerate Belarus's decarbonisation. The 2020 project Support for the Development of a National Energy Efficiency Action Plan for Belarus[73] identified and quantified the impact of such measures, showing that their implementation would significantly enhance alignment with the EU Energy Efficiency Directive. In the **residential sector**, the proposed actions include phasing out household cross-subsidies, improving metering and billing systems, modernising street lighting, establishing a central database of energy performance in public buildings, and adopting a comprehensive Building Renovation Strategy. In the **industrial sector**, they involve introducing energy-management systems and creating investment incentives such as "white certificates" and green-procurement schemes. Taken together, these interventions could raise cumulative energy savings between 2020 and 2030 from the 85 000 Tcal envisaged in the State Energy Saving Programme[74] to 131 000 Tcal – equivalent to roughly two years of national heat consumption.

5.3 Electrification of transport

The transport sector is the third-largest energy consumer in Belarus, accounting for roughly 23% of final energy use. In 2020, the sector remained dominated by fossil fuels, petrol and diesel made up about 83% of total consumption, while electricity contributed less than 3 %, almost entirely from rail transport and trolleybuses. Following the commissioning of the Astravets Nuclear Power Plant in 2021, however, the government placed stronger emphasis on promoting electric mobility and expanding charging infrastructure.

The Presidential Decree "On Stimulating the Use of Electric Vehicles"[42] introduced a package of consumer incentives, including waivers of registration fees, import tax exemptions, and free parking. These measures triggered rapid market growth: the number of registered electric vehicles (EVs) increased to 2 000 in 2021, and by early 2025 had reached 26 000[75]. Similar efforts are visible in public transport – Belarus was the first country in the Eurasian Economic Union to introduce electric buses, with 147 units now operating in several cities. By 2025, Belarus had around 1 400 charging stations, equivalent to 19 vehicles per charger (compared with 13 in the EU[76]). To expand this network, the government updated the Programme for the Creation of a State Charging Network for Electric Vehicles (2024)[44], which envisages 838 new chargers nationwide. The plan distinguishes between urban and highway models, placing new stations primarily in Minsk and regional centres,

and along major motorways at 50-70 kilometre intervals. For public transport, 33 new charging stations are to be installed by 2030, implying a slower pace of electrification in this segment.

Belarus also possesses domestic manufacturing capacity for electric vehicles. Since 2016, companies – BKM Holding and MAZ – produce electric buses and trolleybuses, exporting limited numbers across the Eurasian Economic Union. In addition, the Chinese manufacturer Geely assembles its EX5 electric model locally, while BKM Holding has recently launched an electric truck prototype.

These policy and industrial developments have made Belarus the most dynamic EV market in the region: by mid-2025, national EV registrations exceeded those in Russia, despite Belarus's smaller vehicle fleet. Nevertheless, EVs still represent only 0.8% of private cars and 0.4% of buses[75] (Table 5). In comparison, neighbouring Lithuania and Latvia record significantly higher shares (1.9% and 8%, and 1.3% and 4.4% respectively[77]), supported by direct purchase subsidies of EUR 2 500-5 000 per vehicle. Introducing similar incentives in Belarus would help achieve the government's target of 300 000 EVs by 2030 – a ten-fold increase from current levels – raising the share of electric vehicles in the national fleet to 10%. According to Ministry of Energy estimates, meeting this goal would raise electricity demand by approximately 1.5 TWh per year, or 4% of today's supply.

Table 5. Electric vehicle penetration in Belarus compared with selected EU Member States

Country	Size of the fleet	Size of the electric fleet	Share of the electric fleet
Belarus	Private: 3,222,436 Public: 40,751	Private: 26,356 Public: 147	Private: 0.8% Public: 0.4%
Lithuania	Private: 1,845,070 Public: 7,523	Private: 34,927 Public: 605	Private: 1.9% Public: 8%
Latvia	Private: 881,423 Public: 2,235	Private: 11,753 Public: 99	Private: 1.3% Public: 4.4%
Poland*	Private: 31,400,307 Public: 88,610	Private: 186,590 Public: 803	Private: 0.6% Public: 0.9%
Slovenia	Private: 1,338,880 Public: 33,000	Private: 24,204 Public: 30	Private: 1.8% Public: 0.1%
Slovakia*	Private: 2,954,609 Public: 8,685	Private: 29,526 Public: 46	Private: 1% Public: 0.5%

Romania*	Private: 9,507,132 Public: 54,713	Private: 69,599 Public: 323	Private: 0.7% Public: 0.6%
Bulgaria*	Private: 2,922,531 Public: 54,713	Private: 26,413 Public: 72	Private: 0.9% Public: 0.1%

*For the size of the public transport fleet, 2022 is the latest data found.

To realise the full decarbonisation and energy-security benefits of transport electrification, Belarus must also modernise its ageing vehicle fleet. Complementary measures could include EU-style scrappage schemes that provide financial incentives for replacing old internal-combustion vehicles with electric ones, alongside the adoption of stricter fuel-economy and emissions standards. Such policies are already applied in several EU Member States, for example, Lithuania offers an additional subsidy of EUR 1 000 when an old car is scrapped in exchange for an electric vehicle.

Overall, Belarus' transport sector is clearly moving towards electrification. Alignment with EU regulations – such as the Alternative Fuels Infrastructure Regulation, the Clean Vehicles Directive, and the CO_2 Emission Standards for Vehicles – could accelerate this transition further by enabling access to EU funding mechanisms, technology partnerships, and cross-border logistics networks.

6. Conclusion

The European Green Deal (EGD) establishes an integrated framework of climate, energy, transport, and environmental legislation aimed at achieving climate neutrality in the European Union by 2050. Aligning Belarus' economy with the EGD acquis would entail significant economic and institutional changes across multiple sectors and would extend far beyond environmental policy, reshaping industrial competitiveness, investment patterns, and institutional governance.

The analysis presented in this report demonstrates that while certain foundations for alignment already exist, particularly in energy efficiency, renewable deployment, and electromobility, substantial legal, institutional, and technical gaps remain across all core legislative domains. The absence of a carbon pricing framework, limited renewable integration, and underdeveloped monitoring and verification systems are among the most pressing challenges. Moreover, regulatory approximation would demand the creation of independent authorities, enhanced data collection and transparency systems, and significant administrative capacity building.

Sectoral analysis shows that the impacts of harmonisation would be uneven. Energy-producing and energy-intensive sectors, such as electricity generation, refining, chemicals, and cement, would face the highest compliance costs under the EU Emissions Trading System (ETS), the Industrial and Livestock Rearing Emissions Directive (IED 2.0), and the Energy Efficiency Directive (EED). The transport sector would undergo deep structural transformation, requiring large-scale investment in electric-vehicle infrastructure, clean fleets, and low-carbon fuels under the Alternative Fuels Infrastructure Regulation (AFIR), Clean Vehicles Directive, and CO_2 Emission Standards. Construction would experience short-term cost increases due to stricter building codes under the Energy Performance of Buildings Directive (EPBD) but would benefit from long-term energy savings and job creation in the renovation sector. Agriculture would face higher environmental compliance costs under the IED 2.0 and RED III but could gain access to new markets for organic produce and bioenergy. Finally, all major enterprises would need to strengthen governance, transparency, and reporting systems to comply with the Corporate Sustainability Reporting Directive (CSRD).

Despite these challenges, the long-term benefits of harmonisation could be substantial. By integrating into the EU's regulatory and market systems, Belarus would gain access to European value chains, attract green finance, and accelerate industrial modernisation. Alignment would enhance energy security, reduce import dependence, and stimulate domestic innovation in renewable energy, clean technologies, and sustainable agriculture. The process could also help strengthen public institutions and governance through the adoption of EU standards in transparency, accountability, and environmental protection.

To realise these opportunities, Belarus would need a carefully sequenced reform strategy combining legislative approximation, institutional strengthening, and investment mobilisation. Effective coordination across government agencies, private industry, and international partners will be essential. Access to EU financial instruments, such as the European Investment Bank (EIB), the Neighbourhood, Development and International Cooperation

Instrument (NDICI), and Horizon Europe, could play a critical role in reducing transition costs and supporting technology transfer.

In sum, while the path toward alignment with the EGD acquis presents formidable economic and institutional challenges, it also offers a roadmap for sustainable modernisation and long-term competitiveness. If effectively managed, harmonisation could help Belarus meet EU environmental standards while strengthening its economic resilience and supporting the shift toward a low-carbon economy.

7. References

1. European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, and the Committee of the Regions The European Green Deal. COM(2019) 640 final. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2019:640:FIN (2019).

2. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions Enhancing the accession process -- A credible EU perspective for the Western Balkans. COM(2020) 57 final. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:57:FIN (2020).

3. European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, and the Committee of the Regions "Fit for 55": delivering the EU's 2030 Climate Target on the way to climate neutrality. COM(2021) 550 final. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021DC0550 (2021).

4. European Parliament & Council of the European Union. Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC. URL: http://data.europa.eu/eli/dir/2003/87/2024-03-01 (2003).

5. European Parliament & Council of the European Union. Directive (EU) 2023/959 of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union. (2023).

6. European Commission. ETS2: buildings, road transport and additional sectors. (2025).

7. European Parliament & Council of the European Union. Regulation (EU) 2023/955 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060. (2024).

8. European Parliament & Council of the European Union. Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast). URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L2001 (2018).

9. European Parliament & Council of the European Union. Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 PE/36/2023/REV/2. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1699364355105 (2023).

10. European Parliament & Council of the European Union. Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (Text with EEA relevance). URL: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex-%3A32009L0028 (2009).

11. European Parliament & Council of the European Union. Directive (EU) 2023/1791 on energy efficiency. (2023).

12. European Commission. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, and the Committee of the Regions REPowerEU Plan. COM(2022) 230 final. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:230:FIN (2022).

13. European Parliament & Council of the European Union. Directive 2002/91/EC on the energy performance of buildings. (2002).

14. European Parliament & Council of the European Union. Directive (EU) 2024/1275 on the energy performance of buildings (recast). (2024).

15. European Parliament & Council of the European Union. Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control). (2010).

16. European Commission & Joint Research Centre. Best Available Techniques (BAT) Reference Documents (BREFs). URL: https://eippcb.jrc.ec.europa.eu/reference (2025).

17. European Parliament & Council of the European Union. Directive (EU) 2024/1785 amending Directive 2010/75/EU on industrial emissions and Regulation (EC) No 166/2006. (2024).

18. European Parliament & Council of the European Union. Regulation (EU) 2023/1804 on the deployment of alternative fuels infrastructure. (2023).

19. European Parliament & Council of the European Union. Directive (EU) 2019/1161 on the promotion of clean and energy-efficient road transport vehicles. (2019).

20. European Parliament & Council of the European Union. Directive 2009/30/EC amending Directive 98/70/EC relating to the quality of petrol and diesel fuels. (2009).

21. European Parliament & Council of the European Union. Regulation (EU) 2019/631 setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles. (2019).

22. European Parliament & Council of the European Union. Regulation (EU) 2019/1242 setting CO2 emission performance standards for new heavy-duty vehicles. (2019).

23. European Parliament & Council of the European Union. Regulation (EU) 2023/851 amending Regulations

(EU) 2019/631 and (EU) 2019/1242 regarding strengthened CO_2 standards. (2023).

24. European Parliament & Council of the European Union. Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). URL: http://data.europa.eu/eli/reg/2021/1119/oj (2021).

25. European Parliament & Council of the European Union. Directive (EU) 2022/2464 as regards corporate sustainability reporting (CSRD). (2022).

26. UNDP. In Belarus, regional attention is being paid to carbon trading [В Беларуси на региональном уровне проявляют внимание к торговле углеродными единицами]. URL: https://www.undp.org/ru/belarus/news/v-belarusi-na-regionalnom-urovne-proyavlyayut-vnimanie-k-torgovle-uglerodnymi-edinicami (2023).

27. BelTA. The Belarusian Currency and Stock Exchange and the Ministry of Natural Resources signed a cooperation agreement in the field of green financing [БВФБ и Минприроды заключили соглашение о сотрудничестве в сфере зеленого финансирования]. URL: https://belta.by/economics/view/bvfb-i-minprirody-zakljuchili-soglashenie-o-sotrudnichestve-v-sfere-zelenogo-finansirovanija-732926-2025/ (2025).

28. Belarus Green Economy Action Plan (2021–2025) [О национальном плане действий по развитию «зеленой» экономики в Республике Беларусь на 2021–2025 годы]. URL: https://sdgs.by/wp-content/uploads/2023/10/o-natsionalnom-plane-dejstvij-po-razvitiju-zelenoj-ekonomiki-v-respublike-belarus-na-2021-2025-gody.pdf (2021).

29. IRENA. Renewable Capacity Statistics -- Time Series. URL: https://public.tableau.com/views/IRENARETimeSeries/Charts (2025).

30. International Energy Agency. Belarus. Energy System Overview. URL: https://www.iea.org/countries/belarus (2025).

31. Republic of Belarus. Law on Renewable Energy Sources [Закон Республики Беларусь о регулировании отношений в сфере использования возобновляемых источников энергии]. URL: https://pravo.by/document/?guid=12551&p0=H12200173 (2022).

32. Council of Ministers of the Republic of Belarus. State Energy Saving Program (2021–2025) [Государственная программа «Энергосбережение» на 2021–2025 годы]. URL: https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://pravo.by/document/%3Fguid%3D3871%26p0%3DC22100103&ved=2ahUKEwiH8diesZeQAxX2AtsEHcTTAb8QFnoECCEQAQ&usg=AOvVaw3D5-xF1Ax29B-N6u7z_KHg (2021).

33. BelTA. Belarus has developed a concept for a state Energy Saving Program for 2026-2030 [В Беларуси разработана концепция госпрограммы "Энергосбережение" на 2026-2030 годы]. URL: https://belta.by/

society/view/v-belarusi-razrabotana-kontseptsija-gosprogrammy-energosberezhenie-na-2026-2030-gody-674705-2024/ (2024).

34. President of the Republic of Belarus. Decree No. 327 On Enhancing Energy Efficiency in Multi-Apartment Residential Buildings [Указ № 327 «О повышении энергоэффективности многоквартирных жилых домов»]. URL: https://president.gov.by/ru/documents/ukaz-327-ot-4-sentjabrja-2019-g-21947?TSPD_101_R0=08eaf62760ab2000fcfbb5dac09fef99323920ce60c41d32789d6ec62d57b2d7fd1968347d99702208ed2a123d1430003e9030609887ce2cede6cc341af496d689b753a247233f76b8a5a2f9e183eaef7ac5df09557dab2920a5e20572da7478 (2019).

35. Energo-Audit. Energy efficiency classes of buildings: a simple explanation of complex concepts [Классы энергетической эффективности зданий: простое объяснение сложных понятий]. URL: https://energo-audit.by/klassy-jenergeticheskoj-jeffektivnosti-zdanij-prostoe-objasnenie-slozhnyh-ponjatij/ (2025).

36. Ministry of Natural Resources and Environmental Protection of the Republic of Belarus. First Biennial Transparency Report of the Republic of Belarus [Первый двухгодичный доклад Республики Беларусь по вопросам транспарентности]. URL: https://unfccc.int/sites/default/files/resource/BTR_Belarus_2024.pdf (2024).

37. Republic of Belarus. Law on the Production and Circulation of Organic Products [Закон Республики Беларусь «О производстве и обращении органической продукции»]. URL: https://pravo.by/document/?guid=12551&p0=H11800144 (2018).

38. Council of Ministers of the Republic of Belarus. Resolution No. 59 of 01.02.2021 On the State program “Agrarian Business” for 2021-2025 [Постановление Совета Министров Республики Беларусь от 01.02.2021 г. № 59 «О Государственной программе “Аграрный бизнес” на 2021-2025 годы»]. (2021).

39. IFOAM. IFOAM Norms for Organic Production and Processing. URL: https://www.ifoam.bio/ (2025).

40. President of the Republic of Belarus. Decree No. 273 On Stimulating the Use of Electric Vehicles [Указ № 273 «О стимулировании использования электромобилей»]. URL: https://president.gov.by/fp/v1/166/document-thumb__166__original/166.1587034481.aba1d325f6.pdf (2018).

41. President of the Republic of Belarus. Decree No. 92 of 12 March 2020 On Stimulating the Use of Electric Vehicles [Указ № 92 от 12.03.2020 «О стимулировании использования электромобилей»]. URL: https://president.gov.by/ru/documents/ukaz-92-ot-12-marta-2020-g-23228?TSPD_101_R0=08eaf62760ab2000cabeb3242d24aea2416011c6956b7d27f46e5b7394d3e3852dc19a19ec62ef2e0817fe5fdd143000b5a44fa82561152591d6921c73de2a1fca7dfcfef48361aafe73d681a0db1fa886a94326669b613777fb02a96be43b5f (2020).

42. President of the Republic of Belarus. Decree No. 447 of 22 November 2021 amending Decree No. 92 on EV support [Указ № 447 от 22.11.2021 Об изменении Указа Президента Республики Беларусь от 12 марта 2020 г. N 92 “О стимулировании использования электромобилей”]. URL: https://pres-

ident.gov.by/ru/documents/ukaz-no-447-ot-22-noyabrya-2021-g?TSPD_101_R0=08eaf62760ab-200032c140803a77fb0ac3258e86382d5bcf2c2f4799fc2e88d2246294ade2872d2308f6eaf0491430007d7f-d0a05124b5e1dd4334299762dc3c8eb0f6839b63151d75a736a3b6b01c705782e3e830993745933404f-5164ab45f (2021).

43. Council of Ministers of the Republic of Belarus. Programme for the Development of Electric Transport (2021–2025) [Комплексная программа развития электротранспорта на 2021–2025 годы]. URL: https://pravo.by/document/?guid=3871&p0=C22100213 (2021).

44. Council of Ministers of the Republic of Belarus. Resolution No. 816 on the national EV charging network [Постановление № 816 о национальной сети зарядных станций для электромобилей]. URL: https://pravo.by/document/?guid=12551&p0=C22400816 (2024).

45. Digital Energy. Belarus: An Overview of Government Support Measures for Electric Mobility [Белоруссия. Обзор мер государственной поддержки электромобильности]. URL: https://www.digital-energy.ru/2025/06/20/analytics/13156-evrbli/ (2025).

46. National Sustainable Development Strategy until 2035 [Национальная стратегия устойчивого развития до 2035 года]. URL: https://economy.gov.by/uploads/files/Natsionalnaja-strategija-ustojchivogo-razvitija-Respubliki-Belarus-na-period-do-2035-goda.pdf (2020).

47. Council of Ministers of the Republic of Belarus. State Programme for Public Finance Management [Государственная программа «Управление государственными финансами и регулирование финансового рынка» на 2020-2025 годы]. URL: https://www.google.com/url?sa=t&source=web&rct=-j&opi=89978449&url=https://pravo.by/document/%3Fguid%3D12551%26p0%3DC22000143&ved=2a-hUKEwijjlOCspeQAxU0VvEDHY5LMXgQFnoECAsQAQ&usg=AOvVaw0mb_UQ7qEhNdRwJ3Eap8HX (2020).

48. Council of the European Communities. Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources. (1991).

49. European Parliament & Council of the European Union. Directive 2000/60/EC establishing a framework for Community action in the field of water policy (Water Framework Directive). (2000).

50. European Parliament & Council of the European Union. Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides. (2009).

51. European Parliament & Council of the European Union. Regulation (EU) 2018/848 on organic production and labelling of organic products. (2018).

52. European Parliament & Council of the European Union. Directive 2008/50/EC on ambient air quality and cleaner air for Europe. (2008).

53. European Parliament & Council of the European Union. Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage. (2004).

54. European Parliament & Council of the European Union. Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply. (2017).

55. European Parliament & Council of the European Union. Directive 2008/98/EC on waste (Waste Framework Directive). (2008).

56. Council of the European Union. Council Directive 1999/31/EC on the landfill of waste. (1999).

57. European Parliament & Council of the European Union. Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive). (2011).

58. European Parliament & Council of the European Union. Directive 2002/49/EC relating to the assessment and management of environmental noise. (2002).

59. Scarlat, N., Prussi, M. & Padella, M. Quantification of the carbon intensity of electricity produced and used in Europe. *Applied Energy* **305**, 117901 (2022).

60. Electricity Maps. Electricity Map of Belarus. URL: https://app.electricitymaps.com/map/zone/BY (2025).

61. European Environment Agency. Greenhouse gas emission intensity of electricity generation in Europe. URL: https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emission-intensity-of-1 (2025).

62. Novikau, A. Current challenges and prospects of wind energy in Belarus. Renewable Energy **182**, 1049–1059 (2022).

63. IRENA. *Renewables Readiness Assessment: Belarus*. (International Renewable Energy Agency, Abu Dhabi, 2021).

64. Council of Ministers of the Republic of Belarus. Resolution No. 1180 of 09.08.2010 On approval of the strategy for the development of the energy potential of the Republic of Belarus. [Постановление Совета Министров Республики Беларусь 9 августа 2010 г. № 1180 Об утверждении стратегии развития энергетического потенциала Республики Беларусь]. URL: https://minenergo.gov.by/dfiles/000490_409778__1180.doc?csspreview=true (2010).

65. Ministry of Energy of the Republic of Belarus. The strategy for the development of the energy potential of the Republic of Belarus. [Стратегия развития энергетического потенциала Республики Беларусь]. URL: https://iea.blob.core.windows.net/assets/imports/events/248/EnergyEfficiencyandRenewableEnergyPotentialinBelarus.pdf (2010).

66. IRENA. *Energy Profile: Belarus*. https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/Europe/Belarus_Europe_RE_SP.pdf (2024).

67. Euronews. Belarus proposes new nuclear plant to supply energy to Russian-occupied Ukraine. URL: https://www.euronews.com/2025/09/26/belarus-proposes-new-nuclear-plant-to-supply-energy-to-russian-occupied-ukraine (2025).

68. European Council. Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations. URL: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32014L0087.

69. European Commission. European Instrument for International Nuclear Safety Cooperation. URL: https://commission.europa.eu/strategy-and-policy/eu-budget/performance-and-reporting/programme-performance-statements/european-instrument-international-nuclear-safety-cooperation-performance_en (2025).

70. Department of Energy Efficiency of the Republic of Belarus. The Law on Energy Saving [Департамент по энергоэффективности - Закон Республики Беларусь “Об энергосбережении” (от 24.05.2021№111-З)] (2021).

71. Ministry of Economy of the Republic of Belarus. *Draft National Strategy for Sustainable Development of the Republic of Belarus for the Period up to 2040. [Проект Национальной Стратегии Устойчивого Развития Республики Беларусь На Период До 2040 Года].* https://economy.gov.by/uploads/files/NSUR/proekt-Natsionalnoj-strategii-ustojchivogo-razvitija-na-period-do-2040-goda.pdf (2024).

72. UNDP. Boosting Up Energy Efficiency in Belarus’ Small-Town Housing Sector. URL: https://www.undp.org/belarus/press-releases/boosting-energy-efficiency-belarus-small-town-housing-sector (2023).

73. ENVIROS. *Support for the Development of a National Energy Efficiency Action Plan (NEEAP) for Belarus [Поддержка Разработки Национального Плана Действий По Энергоэффективности Для Беларуси].* https://energoeffect.gov.by/downloads/cooperation/202005_plan_enviros_russa.pdf (2020).

74. Council of Ministers of the Republic of Belarus. Resolution No. 248 of 28.03.2016 On the State Program “Energy Saving” for 2016–2020 [Постановление Совета Министров Республики Беларусь от 28 марта 2016 №248 О Государственной программе «Энергосбережение» на 2016–2020 годы]. URL: https://minenergo.gov.by/wp-content/uploads/Postanovlenie-SM-RB-ot-28.03.2016-248.docx (2016).

75. National Statistical Committee of the Republic of Belarus. Availability of vehicles (at the end of the year) on the territory of the Republic of Belarus [Наличие транспортных средств (на конец года) по территории Республики Беларусь]. URL: https://dataportal.belstat.gov.by/osids/indicator-info/10209000005 (2024).

76. International Energy Agency. Electric vehicle charging – Global EV Outlook 2025. URL: https://www.iea.org/reports/global-ev-outlook-2025/electric-vehicle-charging (2025).

77. European Commission. European Alternative Fuels Observatory. URL: https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road (2025).