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ACTION PLAN FOR THE TRANSITION OF INDUSTRIAL ENTERPRISES TO ZERO EMISSION BY 2050

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FEASIBILITY STUDY ON THE USE OF CO2 CAPTURE AND STORAGE, HYDROGEN, AND OTHER INNOVATIVE TECHNOLOGIES IN LITHUANIAN INDUSTRIAL ENTERPRISES OPERATING IN THE MOST ADVERSELY AFFECTED AREA

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1. Introduction

Lithuania stands at a decisive moment in shaping the future of its industrial system. Over the past decades, the country's industrial structure has remained concentrated in several strategically important zones across Central and Northern Lithuania, where a combination of chemical production, cement manufacturing, oil refining, waste-to-energy facilities, district heating systems and specialized manufacturing form the backbone of national value creation. At the same time, these activities account for a substantial share of national CO_2 emissions, placing three counties: Kaunas, Šiauliai and Telšiai at the centre of Lithuania's long-term decarbonisation challenge. The present Action Plan builds on the main findings of the *„Report on the assessment of the possibilities of the use of hydrogen and other innovative technologies and carbon capture and utilisation (CCU), carbon capture and storage (CCS) technologies in industrial enterprises, and on the legal analysis“*, together with detailed sectoral assessments of the region's main industrial emitters. It establishes an integrated pathway for reducing emissions while preserving industrial competitiveness and safeguarding economic resilience.

The underlying technical report provides a clear foundation for this work. Its assessment of Lithuania's industrial and policy landscape highlights several critical realities. First, the largest industrial emitters produce CO_2 not merely as a result of fuel combustion but as an inherent output of essential chemical and thermal processes ammonia synthesis, nitric acid production, clinker formation, petroleum refining, and other high-temperature reactions that cannot be decarbonized through efficiency improvements or fuel switching alone. Second, the report confirms the growing importance of innovative technologies, such as electrification of heat, renewable hydrogen, advanced biomass applications and carbon capture systems as core enablers of industrial transformation. Third, the legal and regulatory analysis underscores the need to align national frameworks with EU-wide developments in CCUS, hydrogen markets and cross-border CO_2 transport, pointing to the importance of coherent national infrastructure planning and long-term strategic commitment.

These broader insights intersect with the results of the three-county industrial analysis, where the region's emission profile reveals a pattern common to many European industrial clusters. Kaunas County hosts Lithuania's largest single industrial point source of CO_2, centered around chemical and fertiliser production and complemented by a modern waste-to-energy CHP plant and a sizeable district heating network reliant on natural gas. Šiauliai County is defined by its cement and construction materials industry, producing process emissions that can only be addressed through carbon capture and dedicated storage pathways. Telšiai County, meanwhile, is home to the Mažeikiai refinery, the key petroleum processing hub in the Baltic region, generating high-temperature and multi-stream CO_2 emissions similar to those found in the industrial basins of Western Europe. Surrounding these anchor emitters is a diverse layer of medium-sized industries, such as food processing, wood processing, chemicals, sugar refining, and packaging, and a long tail of agricultural and municipal boilers, each requiring tailored but coordinated interventions.

Together, these counties form a coherent industrial corridor whose emissions profile and technological needs are highly complementary. Kaunas provides high-purity chemical CO_2 streams ideally suited for early CCUS deployment. Šiauliai contributes unavoidable process emissions from clinker formation, strengthening the case for regional CO_2 storage or export. Telšiai provides the critical mass and operational flexibility of a refinery complex capable of anchoring shared CO_2 transport infrastructure, renewable hydrogen integration and deep energy-efficiency upgrades. The combined picture mirrors the evolution of integrated industrial clusters in Germany, France and the United Kingdom, where cross-regional cooperation and shared infrastructure solutions have been essential to achieving cost-effective decarbonisation.

This Action Plan therefore, adopts a regional, integrated perspective. It recognises that decarbonizing the industrial base of Kaunas, Šiauliai and Telšiai counties requires coordinated investments in infrastructure, technology deployment, regulatory alignment and phased project development extending from 2025 to 2050. CCUS emerges as a central pillar for the counties' largest emitters, while electrification of process heat, expansion of sustainable biomass and biogas, industrial heat pumps, renewable hydrogen, and district heating transformation provide critical complementary pathways for medium and smaller emitters. The plan further acknowledges the need to modernize legal frameworks to enable CO_2 transport, support cross-border storage solutions, and unlock hydrogen and synthetic fuel production in line with EU strategies.

Ultimately, the purpose of this consolidated chapter is to bring these elements together into a coherent regional transition framework. The counties' industrial systems are interconnected, not only through supply chains and energy flows but also through shared technological challenges and decarbonisation opportunities. By integrating the insights of the national assessment report, the three-county emission analysis and the broader strategic requirements of Lithuania's climate-neutrality trajectory, this Action Plan provides a structured, forward-looking basis for implementing a resilient, innovation-driven industrial transformation across Central and Northern Lithuania.

2. Main findings on the current situation in terms of industrial decarbonization

Lithuania stands today as the largest economy among the Baltic States, with an increasingly modernized industrial base and one of the most dynamic growth rates in the European Union. Over the last three decades, the country has transformed its production structure from one heavily reliant on agriculture and basic manufacturing into a service-oriented and technologically adaptive economy. While the services sector now accounts for more than 70 % of gross value added, industry still contributes close to one-fifth of national output, hosting strong clusters in chemicals, wood processing, electronics, metalworking, machinery, and precision technologies. Lithuania has also achieved international recognition for its niche leadership in laser manufacturing, with local producers supplying a significant share of the global high-energy picosecond systems market.

Industrial growth is supported by a favourable business environment and targeted incentive frameworks. The network of Free Economic Zones, particularly those in Kaunas, Klaipėda, and Šiauliai, offers tax exemptions and streamlined permitting processes. At the same time, the Green Corridor and FDI Invest LT+ programmes attract large-scale investments and foreign partners. County level specialization has evolved around resource endowments and existing infrastructure: oil refining in Telšiai (ORLEN Lietuva), maritime and plastics industries in Klaipėda, construction materials and machinery in Šiauliai, heavy vehicles and metal engineering in Panevėžys, advanced electromechanical systems in Kaunas, and biotechnology and ICT in Vilnius. These territorial patterns create a diversified industrial landscape capable of serving both domestic and export markets.

Since independence, Lithuania has achieved one of Europe's steepest reductions in greenhouse-gas emissions over 60 % from 1990 to 2023 driven by the decline of carbon-intensive energy production, efficiency gains, and the expansion of renewables. The Energy sector remains one of the main emitters, responsible for roughly two-thirds of national CO_2 output, followed by agriculture and industry. Energy related emissions are primarily driven by transport, which in 2023 accounted for more than half of the sector's total. Industrial point sources are comparatively few but highly concentrated, with the fertilizer producer Achema, the oil refinery ORLEN Lietuva, and the cement manufacturer Akmenės Cementas, as well as large heat and power utilities, collectively accounting for nearly one quarter of Lithuania's total CO_2 emissions.

The country's energy profile has undergone radical restructuring. After the closure of the Ignalina nuclear power plant, primary energy production fell sharply but has been partially compensated by renewables. By the third quarter of 2025, around 81% of installed electricity-generation capacity derived from wind, solar, biomass, biogas and hydro resources. The electrification of end-uses, rapid deployment of solar photovoltaics, and expansion of onshore wind are reshaping the national mix, while energy-efficiency improvements have brought the ratio between primary and final consumption to historically high levels. Despite this progress, Lithuania remains a net importer of electricity, underscoring the need for regional grid integration and domestic energy storage solutions.

Transport infrastructure remains one of the country's strategic assets. Lithuania's location at the intersection of the North Sea–Baltic corridor gives it outsized logistical importance relative to its size. The Via Baltica road system, the Rail Baltica project, and the Port of Klaipėda collectively underpin its role as a gateway between Western Europe and the East. The port has become both the busiest and one of the greenest in the Baltic region, advancing LNG bunkering, shore-power systems, and hydrogen pilot initiatives. National airports are implementing decarbonization measures under the Net Zero 2050 strategy, while intermodal terminals in Vilnius and Kaunas support modal shifts toward rail and reduced-carbon logistics. Nevertheless, transport emissions remain Lithuania's fastest-growing source of CO_2, underscoring the need for accelerated electrification and the adoption of alternative fuels.

Parallel to physical infrastructure, Lithuania has developed a sophisticated business and scientific ecosystem that strengthens its decarbonization capacity. The country's Global Business Services and ICT sectors employ over 26,000 professionals and serve as conduits for digital innovation, automation, and green technology integration. Universities play an essential role: the Lithuanian Energy Institute and Kaunas University of Technology lead research in hydrogen production, solid-state storage, and fuel-cell materials; Vilnius University advances electrochemical and catalytic processes; Klaipėda University anchors marine-energy and hydrogen logistics studies; and the Vytautas Magnus University and the Nature Research Centre contribute socio-economic, agricultural, and geological expertise. Collectively, these institutions provide the scientific foundation for future low-carbon industrial pathways.

Research efforts have also begun to address carbon capture, utilization, and storage (CCUS), though activity remains fragmented. Studies at Kaunas University have yielded low-lime rankinite-based cements and CO_2-curing methods capable of achieving substantial emission cuts in construction materials. Geological surveys by Vilnius University and the Nature Research Centre have mapped more than 600 deep wells across the Baltic Basin, identifying Cambrian and Pärnu–Kemeri aquifers suitable for long-term sequestration. Yet, most national R&D still operates at laboratory scale, underscoring the need for pilot facilities, demonstration projects, and stronger public-private coordination to raise technologies beyond TRL 4.

Lithuania's alignment with European policy frameworks, notably the Net-Zero Industry Act and the European Hydrogen Bank, positions it to participate in emerging clean-tech value chains. National targets call for a 70% economy-wide emission reduction by 2030 (compared to 1990 levels) and climate neutrality by 2050. Domestic support instruments, including a €36 million hydrogen-production scheme and green public procurement requirements, aim to catalyse early investments in electrolysers, renewables, and low-carbon materials. However, patent activity in climate-neutral technologies remains modest compared with EU leaders, signalling that further innovation incentives and industrial scaling are essential.

Overall, Lithuania enters the next phase of industrial decarbonization with a solid economic base, an improving innovation ecosystem, and a supportive policy environment. The principal challenges lie in bridging research with implementation, expanding renewable and hydrogen infrastructure, and addressing transport-sector emissions. Success will depend on mobilizing coordinated regional initiatives, especially in Kaunas, Telšiai, and Šiauliai counties where industrial density and skilled labour can transform pilot technologies into commercially viable, export-oriented solutions. If effectively governed, these dynamics can transform Lithuania into a fast-growing, low-carbon manufacturing hub for the wider Baltic and Northern European region.

3. Main findings on reducing CO_2 emissions in technological processes

Lithuania's progress toward industrial decarbonization increasingly hinges on the integration of innovative technologies, particularly hydrogen, electrification, and carbon-neutral manufacturing systems. The analysis confirms that hydrogen occupies a strategic yet complex role within the national decarbonization portfolio. Although widely regarded as a cornerstone for deep industrial emissions reduction, its immediate deployment faces economic and infrastructural constraints. Production remains costly, with the levelized cost of hydrogen in Lithuania exceeding €6/kg for electrolysis, while the national infrastructure for storage, transport, and distribution is only at an embryonic stage. The conversion losses and technical limits of current hydrogen carriers, such as ammonia, methanol, and liquid organic hydrogen carriers compound these challenges. Despite this, hydrogen continues to represent a long-term pathway for transforming high-emission sectors such as fertilizers, oil refining, chemicals, heavy duty and marine transportation.

The study highlights that hydrogen's strategic importance must be evaluated pragmatically. Lithuania's market size, absence of large industrial offtakers, and lack of economies of scale impede cost parity with conventional fuels. As demonstrated across Europe, infrastructure retrofitting, particularly the adaptation of natural gas pipelines poses material and safety challenges, including hydrogen embrittlement and pressure degradation. Hence, a cautious, phased approach integrating renewable-based electrolysis with local industrial clusters is recommended. Short-term feasibility lies in coupling electrolysers with solar and wind generation to optimize capacity utilization and reduce electricity costs. This hybrid approach could yield utilization rates near 90%, improving the economics of green hydrogen while ensuring compatibility with Lithuania's renewable expansion.

Beyond hydrogen, the report underscores the growing relevance of other decarbonization levers: renewable electricity generation, heat electrification, digitalization, and circular-economy measures. Lithuania has already made substantial progress in onshore wind and solar photovoltaics, achieving 5,638 MW summarized capacity by the end of 2025. Yet, industrial uptake of renewables remains uneven, particularly for process heat. Geothermal and biomass solutions appear promising in western regions with higher heat-flow potential and established biomass supply chains. The geothermal anomaly of western Lithuania, where subsurface temperatures reach up to 150 °C offers a credible opportunity for local district heating and small-scale power generation.

Innovative efficiency measures stand out as the most immediate and cost-effective decarbonization options. The use of waste-heat recovery, high-efficiency motors, and insulation upgrades can reduce industrial energy consumption by 10–30% with short payback periods. The integration of digital technologies and artificial intelligence adds a transformative layer: predictive maintenance, process optimization, and AI-driven energy management systems are increasingly linked to measurable reductions in emissions and operational costs. AI also plays an emerging role in optimizing carbon capture and storage (CCS) systems by enhancing process control, site selection, and long-term monitoring.

Material substitution and product innovation are equally critical. The transition toward carbon-neutral cement production through calcined clays, carbonation curing, and mechano-chemical activation has the potential to cut sectoral emissions by up to 60%. Parallel progress is observed in bioplastics and bio-based chemicals, which can replace fossil-derived inputs with renewable alternatives. In fertilizer and chemical industries, integrating carbon capture into steam-methane-reforming units or replacing grey hydrogen with electrolytic hydrogen represents the most direct emission reduction path, though costs remain high.

The study also details the socio-economic implications of technological deployment. In the short term, the transition will generate structural labour shifts, demanding workforce reskilling and institutional adaptation. However, over the medium term, industrial decarbonization will catalyse the emergence of high-value employment, new service sectors, and green innovation clusters particularly in Kaunas, Šiauliai, and Telšiai counties. These regions already possess complementary capabilities: Kaunas in engineering and digitalization, Šiauliai in building materials and cement, and Telšiai in energy-intensive refining and biogas production. Coordinated investment in these hubs could maximize spill-over effects and support equitable regional development.

Environmentally, the widespread application of innovative technologies will yield immediate air-quality benefits and measurable CO_2 reductions across multiple sectors. Electrification of heat and the introduction of renewable generation will curtail particulate matter and sulphur emissions, while industrial electrification, when combined with renewable sourcing, can reduce lifecycle emissions by more than 70%. Over the longer term, integrated carbon management systems and waste valorisation strategies will reinforce Lithuania's compliance with EU sustainability directives and contribute to ecosystem restoration.

The report concludes that Lithuania's pathway to industrial decarbonization must be guided by economic realism, technological readiness, and social inclusiveness. Hydrogen and CCS will likely play niche but strategic roles in hard-to-abate sectors, while electrification, renewables, and AI-enabled efficiency measures will dominate short-term emission reductions. Policy coherence, targeted state aid, and active participation in EU programs, such as the Innovation Fund, the Hydrogen Bank, and the Net-Zero Industry Act are essential to bridge current cost gaps and de-risk early investments. If executed systematically, these measures can reposition Lithuania as a frontrunner in Central-Eastern Europe's transition to a competitive low-carbon industrial economy.

4. Main findings on carbon capture from technological processes

Carbon capture has emerged as one of the most decisive pillars in Lithuania's long-term industrial decarbonization strategy. The chapter shows that, while energy efficiency and fuel switching can reduce a portion of industrial emissions, carbon capture and storage (CCS) or utilization (CCU) remains the only scalable option for deep emission cuts in heavy industry, where process related CO_2 is unavoidable. The technology suite is evolving rapidly: post-combustion solvent systems are now complemented by looping, membrane, and cryogenic separation methods, while new biological and mineralization routes are under active exploration. The main finding is that Lithuania can integrate CCS not as a stand-alone measure but as part of a wider circular-carbon framework linking capture, transport, and reuse across its industrial clusters.

International experience confirms that CCS deployment follows policy rather than purely market logic. Projects expand fastest where regulatory certainty, carbon pricing, and investment support coincide. Pilot initiatives in Northern Europe demonstrate that capture costs fall sharply when shared pipelines and storage hubs serve multiple emitters. Lithuania therefore faces an opportunity to anchor its future capture network in Kaunas, Klaipėda, and Šiauliai, where chemical, fertilizer, and cement plants already dominate the industrial emissions landscape. Early mapping by *Amber Grid* indicates that these regions can host integrated CO_2 corridors linked to port facilities and potential offshore storage partnerships in the Baltic Sea.

Technically, capture readiness differs strongly across sectors. Cement production at Akmenė, responsible for nearly 800,000 t CO_2 per year, offers immediate potential through oxy-fuel and calcium-looping systems with efficiencies exceeding 85%. Fertilizer and hydrogen production where CO_2 streams are already of high purity represent another low-cost entry point, while refineries, glass production and pulp-and-paper plants require more complex retrofits. Pilot studies show that chemical-looping and amine-based post-combustion processes could remove up to 90% of plant emissions but raise energy use by roughly 5–10%. Despite these penalties, the resulting net emission cuts outweigh efficiency losses and position the facilities for compliance with EU climate rules and the forthcoming Carbon Border Adjustment Mechanism.

From a social and regional perspective, CCS deployment will transform industrial labour markets. The installation and operation of capture units demand new competencies in process control, chemical engineering, and environmental monitoring. The study anticipates that many current fossil fuel maintenance roles will evolve toward system diagnostics and automation tasks, creating higher skilled employment and strengthening cooperation between industry and technical universities Although, CO_2 capture itself does not remove particulate matter or sulphur oxides, most capture technologies require substantial flue-gas pre-treatment. As a result, CCS retrofits typically lead to upgraded filtration and desulphurisation systems, which in practice reduce PM and SOx emissions from industrial sites. These indirect air-quality improvements can significantly strengthen public acceptance.

Economically, CCS retrofits require substantial upfront investment, between US$30 and US$150 per ton of capacity, yet they remain cost-competitive compared with other deep-decarbonization options. Capital grants from the EU Innovation Fund, the Recovery and Resilience Facility, and national green-investment instruments will be essential to de-risk early projects. Over the medium term, these investments yield structural benefits: companies that internalize capture costs early avoid future carbon-allowance expenses and gain preferential access to low-carbon procurement markets. For export-oriented producers in cement and chemicals, CCS becomes an economic shield against rising ETS prices and CBAM levies. The chapter concludes that coupling public funding with carbon-pricing revenues offers the most coherent financing path.

Environmental impacts are broadly positive. Early installations in cement and ammonia plants will immediately reduce industrial CO_2 footprints while also cutting ancillary pollutants. As capture efficiency rises to 90–95%, overall industrial emissions could fall by several million tonnes annually by the mid-2030s, helping Lithuania meet its 70% reduction target for 2030 and paving the way for climate neutrality by 2050. In the long term, widespread capture could nearly eliminate CO_2 from the country's hardest-to-abate sectors while improving regional air and water quality. Integration with biogenic sources, such as biomass and waste-to-energy facilities introduces the additional potential for net-negative emissions, aligning national policy with EU directives on carbon removals.

The cost benefit analysis confirms that post-combustion capture remains the most viable option for existing plants, given its compatibility with current infrastructure and relatively low cost of carbon avoidance (US$30–50 per ton). For new installations, oxy-fuel systems show the best balance between efficiency and cost, while direct air capture and other negative-emission technologies remain prohibitively expensive except as demonstration projects. Industrial case studies reveal capture costs between US$20 and US$60 per ton for cement, petrochemicals, and biomass boilers levels that can already compete with ETS carbon prices projected for 2030. Once the EU carbon price surpasses €100 per ton, CCS economics will turn decisively favourable.

A particularly significant insight is the scale of Lithuania's *biogenic-first* opportunity. Analysis by Amber Grid estimates that biogas, biofuel, and waste-to-energy plants could yield more than 0.2 Mt CO_2 per year of high-purity biogenic emissions by 2030 and up to 3.5 Mt by 2040. Because these streams are already concentrated and largely carbon-neutral, capturing them would provide Lithuania with early low-cost experience while generating genuine negative emissions. By prioritizing such projects, Lithuania could build its CO_2-handling infrastructure ahead of large-scale fossil capture and secure its position in the emerging European carbon-management market.

Overall, the study concludes that carbon capture and utilization form an indispensable bridge between current industrial realities and the vision of a climate-neutral economy. Lithuania's potential capture capacity up to 3.5 Mt CO_2 per year by the mid-2040s can only be realized through synchronized investment in transport networks, cross-border storage cooperation, R&D and regulatory clarity. When these enabling conditions converge, carbon capture will cease to be an experimental technology and become a structural feature of Lithuania's modern industrial base delivering emission neutrality, technological renewal, and long-term economic competitiveness in the European low-carbon transition. It is also important to mention, that Amber Grid considers biogenic CO_2 from biogas and biofuel production as the easiest to capture due to its high concentration, which by 2040 could amount to around 0.5 Mt. In contrast, CO_2

capture at hybrid plants requires flue gas treatment technologies, which involve significantly higher investment costs.

5. Main findings on carbon utilization

Lithuania's transition to a low-carbon economy increasingly depends on its ability to transform captured carbon dioxide into valuable resources. The study identifies carbon utilization, both direct and indirect, as a crucial bridge between industrial decarbonization and circular economy development. Direct utilization applies captured CO_2 in its gaseous form within industrial processes, while indirect utilization converts it into other compounds such as fuels or materials. Together, these approaches redefine CO_2 as a versatile industrial feedstock rather than waste, allowing industries to offset capture costs while reducing reliance on fossil-based raw materials.

The analysis emphasizes that Lithuania's future CCU strategy should focus on high-purity CO_2 sources and sectors where utilization aligns naturally with industrial demand. These include construction materials, chemicals, and fuels derived from renewable hydrogen. Incorporating CO_2 into concrete or mineral-based aggregates enables permanent sequestration through carbonation, enhancing structural strength and durability while locking away carbon for decades. Similarly, thermocatalytic hydrogenation processes, where CO_2 reacts with renewable hydrogen yield methanol, formic acid, or dimethyl ether, all of which serve as feedstocks for polymers, solvents, and low-carbon fuels. This transformation opens opportunities for Lithuania's chemical and energy industries to anchor themselves in the European green technology value chain.

Electrochemical and biological conversion pathways complement these developments. Electrochemical CO_2 reduction, powered by renewable electricity, can produce carbon monoxide, formate, or ethylene for polymer production, effectively coupling Lithuania's renewable energy expansion with industrial decarbonization. Meanwhile, biological methods, such as microalgae cultivation in CO_2-enriched environments generate biomass for biofuel or feed production, presenting a symbiosis between carbon reuse and bioeconomy growth. In the consumer sector, supercritical CO_2 extraction has already proven viable, replacing toxic organic solvents in food, cosmetics, and pharmaceuticals, reducing water use, and improving product quality.

The environmental and social impacts of CCU are interconnected. When integrated into local industries, CCU systems can reduce air pollutants, improve public health, and enhance environmental quality around industrial zones. For Lithuania, this translates into visible co-benefits for communities in industrial counties such as Kaunas, Telšiai, and Šiauliai. The expansion of CCU will also reshape labour markets, fostering demand for engineers, automation specialists, and process-control experts. As traditional fossil-based roles diminish, new, higher-skilled positions will emerge, contributing to Lithuania's human capital development. Public acceptance, however, remains critical; transparent communication and inclusion of stakeholders at early stages can ensure trust and long-term societal support for industrial-scale implementation.

Economically, the study acknowledges that early CCU deployment will require significant investment. Integration costs for conversion technologies, such as hydrogenation or electrochemical synthesis are high, and early plants will depend on public financing, EU innovation funds, and carbon-pricing incentives. Yet, the long-term economic logic is compelling. Transforming CO_2 into marketable products methanol, formic acid, urea, cyclic carbonates, and polymers creates new value chains that could diversify Lithuania's industrial base. In cement and construction, CO_2 curing can cut material costs, reduce embodied emissions, and improve product performance, offering immediate pathways to commercialization. In chemicals and fuels, pairing CCU with renewable hydrogen production could enable export of low-carbon methanol and synthetic fuels, leveraging Lithuania's renewable potential and access to Baltic logistics corridors. It is not easy to provide a good figure for the cost of carbon utilization processes, as there are extreme variations in processes, even if the carbon dioxide is used for the same objective. As an example, it is possible to mention that the cost of using captured carbon dioxide to produce methanol can vary from €300 to €2,500/tonne of CO_2, depending on the assumptions.

From a macroeconomic perspective, CCU aligns with Lithuania's strategy to reduce dependence on imported fossil resources and strengthen national energy security. Captured CO_2 becomes a domestic feedstock for industrial production, insulating the economy from volatile global markets. The study underscores that, as carbon prices rise under the EU Emissions Trading System and the Carbon Border Adjustment Mechanism, early adopters of CCU will gain competitive advantages. Firms that internalize carbon costs today will be better positioned to sell low-carbon products at premium prices tomorrow. Moreover, CCU's integration with hydrogen technologies could establish Lithuania as a regional supplier of e-fuels and sustainable chemicals within Northern Europe.

The environmental assessment demonstrates that CCU's contribution to net decarbonization depends heavily on energy sourcing. Processes powered by renewable electricity or waste heat can achieve near carbon-neutral or even carbon negative outcomes, whereas fossil fuel driven systems risk offsetting their climate benefits. Thus, Lithuania's implementation of CCU should remain closely linked to the ongoing expansion of renewables, ensuring that capture, conversion, and product use form a closed low emission cycle. Life-cycle evaluations show that mineralization and material synthesis deliver the highest permanence, while synthetic fuel pathways contribute to transition flexibility in transport and aviation sectors.

Despite its promise, CCU faces inherent limitations: its scale remains small relative to national emissions, and most captured CO_2 globally is still used for enhanced oil recovery. Lithuania's success will therefore depend on focusing on durable, value-added applications cement curing, polymer synthesis, and CO_2-based aggregates rather than short-lived uses. Life-cycle management, continuous monitoring, and coupling with storage options will be vital to prevent re-emission and maintain environmental integrity.

In the broader policy context, carbon utilization is framed not as a substitute for emission reductions but as a complementary solution that transforms unavoidable CO_2 into productive assets. The study concludes that Lithuania possesses a realistic opportunity to lead in this domain, thanks to its strong academic base, emerging hydrogen infrastructure, and experience in renewable energy integration. By combining research, industrial innovation, and targeted financial support, the country can turn CCU into a key pillar of its circular carbon economy linking climate neutrality with industrial modernization, job creation, and sustainable economic resilience.

6. Main findings on carbon storage

Carbon storage is emerging as an indispensable pillar in Lithuania's pathway toward deep industrial decarbonization. The analysis shows that while electrification and renewable energy expansion can abate a large portion of emissions, residual CO_2 from hard-to-abate sectors, such as cement, fertilizers, power generation, and bioenergy will require permanent containment. In this context, geological storage remains the most mature and technically reliable option. Compressed carbon dioxide can be securely injected into depleted oil and gas fields, saline aquifers, or other rock formations capable of containing it for centuries. These reservoirs have been characterized through previous hydrocarbon extraction, providing proven structural integrity and well-understood behaviour under pressure. However, significant capital investments are required for infrastructure, particularly pipelines, compression facilities, and monitoring systems.

Alongside conventional geological storage, the study highlights the potential of emerging alternatives. Mineral carbonation where CO_2 reacts with magnesium or calcium-rich rocks to form stable carbonates offers permanent sequestration with minimal leakage risk. Although current costs and energy requirements remain high, continued advances in mineral processing and waste-heat recovery could make this technology increasingly competitive. Baltic Sea based storage, by contrast, remains speculative due to unresolved environmental and legal risks.

At the international level, carbon storage deployment is accelerating, driven by regulatory incentives and the establishment of cross-border partnerships. Regions with favourable geology and pre-existing industrial infrastructure are leading the way most notably the North Sea basin, where depleted hydrocarbon fields and shared pipeline networks provide low-cost entry points. Lithuania's participation in similar regional systems could yield both economic and strategic benefits, particularly if aligned with EU frameworks for cross-border CO_2 transport and storage.

From a socio-economic perspective, carbon storage projects offer both opportunities and challenges. Construction and operation of storage sites can generate employment, stimulate local economies, and foster new industrial capabilities in drilling, geological monitoring, and environmental management. Collaboration between universities, research institutes, and industry could expand Lithuania's technical capacity, developing specialized expertise in carbon capture, geological modelling, and environmental safety. Yet, the study also notes that public acceptance remains fragile. Concerns over leakage, seismicity, and groundwater contamination though rare and manageable necessitate transparent communication, strong community engagement, and visible safety assurances. Early pilot projects, if implemented responsibly, can play a pivotal role in building societal confidence in the technology.

Economically, storage infrastructure requires large upfront capital but delivers strategic cost reductions over time. By providing secure disposal routes for captured CO_2, Lithuania could lower compliance costs under the EU Emissions Trading System and preserve the competitiveness of key industries. Establishing carbon storage hubs around industrial clusters would allow shared transport infrastructure and economies of scale, spreading fixed costs and reducing the cost per tonne stored. In regions transitioning away from fossil fuel dependence, carbon storage can also serve as a bridging technology, maintaining employment and regional stability during the shift toward cleaner energy systems. However, policy design must ensure that such projects do not prolong reliance on fossil resources or delay renewable deployment.

Environmental implications are broadly positive when robust safeguards are in place. Long-term containment of CO_2 in geological formations prevents atmospheric release and buys time for low-carbon technologies to mature. Monitoring and verification protocols, including pressure management and seismic imaging, are essential to detect anomalies early and mitigate potential risks. Studies show that induced seismicity and leakage are rare under proper regulation and site selection. In addition, integrating carbon storage with bioenergy production (BECCS) could yield net-negative emissions, turning Lithuania's bioenergy potential into a tool for carbon removal rather than neutrality alone.

Strategically, Lithuania's transition to carbon capture and storage (CCS) depends on coherent policy, institutional coordination, and targeted infrastructure investment. Harmonizing national legislation with EU directives is essential to establish clear rules for long-term liability, site permitting, and monitoring. The study emphasizes the need to lift current restrictions on domestic geological storage and to launch pilot-scale exploration of deep saline aquifer structures. These steps would demonstrate feasibility and attract private participation. Furthermore, developing CO_2 transport networks pipelines for large flows and ships or barges for smaller volumes will be vital for linking capture sites with storage locations or export terminals. In the early stages, maritime transport may offer flexibility until pipeline networks are justified by scale.

The cost analysis indicates that transport and storage expenses vary widely by location and project scale. Pipeline transport typically becomes cost-effective beyond volumes of 0.5–1 million tonnes of CO_2 per year, with offshore pipelines 50–100% more expensive than onshore routes. Shipping, though less sensitive to distance, requires liquefaction infrastructure but can serve as an economical transitional solution. As a rule of thumb, transport costs by pipelines range from €5 to €25/tonne of CO_2, from €10 to €50/tonne of CO_2 for boat, from €10 to €60/tonne of CO_2 for railway, and from €15 to €42/tonne of CO_2 for truck.

On the storage side, depleted oil and gas fields present the lowest costs between €1 and €7 per tonne onshore and €2–14 offshore while saline aquifers range from €2–20 per tonne depending on site geology. Larger reservoirs, high injectivity, and favourable permeability drastically reduce costs, whereas extensive monitoring requirements and smaller sites raise them.

Stakeholder interviews reinforce the economic and institutional findings. Lithuanian industrial actors particularly in fertilizers, glass, and power sectors acknowledge the technical feasibility of carbon capture but identify cost and regulatory uncertainty as primary obstacles. Most express interest in starting with biogenic CO_2 sources from biomass facilities, which offer low-cost capture and align with negative-emission strategies. However, the absence of legal authorization for geological storage and the lack of shared transport infrastructure hinder progress. Stakeholders call for financial incentives, low-interest financing for first-mover projects, and a national CO_2 registry distinguishing biogenic and fossil sources. Coordinated action among government, academia, and industry is deemed essential to overcome initial barriers and establish Lithuania as a credible participant in the European CCS landscape.

In conclusion, carbon storage provides Lithuania with a technically mature and environmentally sound mechanism to manage unavoidable industrial emissions. By combining geological storage with biogenic capture and regional transport networks, the country can create a scalable, future-proof framework for deep decarbonization. Achieving this, however, will require regulatory reform, early demonstration projects, and sustained investment in infrastructure and expertise. If implemented systematically, carbon storage can become a cornerstone of Lithuania's low-carbon industrial strategy, ensuring both climate neutrality and long-term industrial resilience.

7. Main findings on geology for carbon storage

The Lithuanian segment of the Baltic sedimentary basin offers a geologically credible yet still under-explored foundation for carbon dioxide storage. The national territory lies within a thick sedimentary sequence reaching 2.3 km in the west that contains multiple aquifer systems with variable lithology and hydrogeological regimes. Among these, the Middle Cambrian and Lower-Middle Devonian formations emerge as the only structures meeting the thermobaric criteria for long-term CO_2 storage. Supercritical conditions, necessary for dense phase injection, are achieved below 800 m depth, where pressures exceed 74 bar and temperatures surpass 31°C. Within these parameters, CO_2 behaves as a highly stable, low-viscosity fluid capable of filling pore networks while remaining effectively trapped beneath impermeable seals, with a density (and volume) reduction of more than 97%.

Two main storage categories are identified: saline aquifers and anticline-type structures, including oil fields. The former provide broader capacity potential, while the latter—characterized by structural closures and clay-rich caprocks—offer greater sealing security. The Cambrian saline aquifer, located in western Lithuania and extending into Latvia and the Baltic Sea, stands out as the most promising. It contains thick quartz sandstones, 40–60 m on average, overlain by 400–800 m of carbonate-shale caprock, ensuring high containment reliability. Reservoir temperatures in this region reach up to 85°C, with pressures approaching 20 MPa—ideal for maintaining CO_2 in its supercritical state. The most favourable porosity range, between 16% and 25%, and permeability near 400 mD, occurs in the Syderiai and Vaškai saline aquifers, while western zones display declining reservoir quality due to quartz cementation.

Detailed assessments confirm that three structures, the onshore Syderiai and Vaškai saline aquifers and the offshore D11 saline aquifer hold the greatest potential. The Syderiai saline aquifer, situated near Mažeikiai refinery and Akmenės cement plant, lies at a depth of roughly 1.45 km and is sealed by a 560 m Ordovician shale-carbonate cap. Its storage capacity, based on both seismic and digital rock analyses, ranges from 21.5 to 232 Mt of CO_2. The Vaškai saline aquifer, though smaller and partially fault-bounded, retains an estimated 8.7–106 Mt capacity, while the D11 site offshore could accommodate 11.3–69 Mt. Collectively, these formations could store between 41.5 and 407 Mt, making Lithuania a viable candidate for medium-scale carbon sequestration in the Baltic region.

The geological character of these sites presents a number of advantages. The Cambrian sandstones exhibit favourable permeability anisotropy and uniform grain sorting, promoting predictable CO_2 flow and minimizing leakage risk. Their hydrogeological isolation bounded above by thick Ordovician-Silurian shales further supports long-term containment. Digital rock studies and reservoir modelling indicate that pore-scale homogeneity is high, with petrophysical variability remaining within a narrow range, which reduces uncertainty in storage capacity estimation. Moreover, the saline nature of formation waters (NaCl type, 100–200 g/L salinity) precludes any interference with potable aquifers, an important environmental safeguard.

Lithuania also possesses additional opportunities in oil fields, particularly the Gargždai zone of uplifts in western Lithuania, where six fields (Vilkyčiai, Diegliai, Pociai, and others) are linked along a 233 km^2 fault zone. Geological investigations suggest that, despite modest porosity (4–8%) and permeability (~10 mD), residual-oil zones can serve for combined CO_2-enhanced oil recovery (EOR) and permanent storage, with theoretical capacity between 31.3 and 267 Mt. The presence of well-defined faults and thick sealing shales makes this one of the few potential industrial-scale storage options in the Baltic basin.

Beyond national borders, the regional perspective reveals strategic complementarities with Latvian and Estonian geology. The shared Cambrian Deimena formation extends across all three countries, enabling the concept of cross-border CO_2 clusters. Latvia's North-Blidene, Dobele, and offshore E6 structures together exceeding 400 Mt capacity could supplement Lithuanian sources. This interconnection opens the door for integrated Baltic CCUS networks, linking major Lithuanian emitters (Orlen refinery, Akmenės Cementas, Achema) to both onshore and offshore storage hubs via pipeline or ship transport. Such a network could safely manage up to 15 Mt of fossil and biogenic CO_2 per year, exceeding the region's combined annual emissions and generating a net-negative balance.

Risk analysis underscores that geological conditions in Lithuania are largely stable, though local faulting requires targeted monitoring. Numerical simulations show that leakage risk becomes significant only if faults exhibit conductivities more than two orders of magnitude higher than the surrounding matrix an unlikely condition given the thick shale seals. Mechanical modelling also indicates negligible deformation under injection pressures, confirming the robustness of Cambrian reservoirs. Nevertheless, site-specific seismic, geomechanical, and pressure monitoring programmes remain essential to ensure long-term security.

In regulatory and technical terms, Lithuania's readiness for storage projects corresponds to Storage Readiness Levels (SRL) 2–3: theoretical capacity confirmed by research activities and screening completed, but requiring pilot testing, data acquisition, and permitting frameworks before operational deployment. The next steps include refining geological models, expanding seismic coverage, and conducting injection trials. Integration into EU initiatives such as the Innovation Fund and the Net-Zero Industry Act will be critical to mobilize financing and regional collaboration.

The overall assessment concludes that Lithuania's western geological formations possess the structural integrity, depth, and capacity necessary for safe and effective CO_2 storage. The combination of favourable Cambrian sandstones, secure caprock seals, and proximity to major emission sources provides a strong technical foundation for national CCS deployment. When aligned with Baltic regional infrastructure and supported by coherent policy and financing mechanisms, these geological assets could enable Lithuania to become a node in Northern Europe's carbon-management network anchoring industrial decarbonization, fostering cross-border cooperation, and reinforcing its pathway toward climate neutrality.

8. Main findings on promotion of CCUS and innovative technologies

The effective transportation of captured carbon dioxide is a critical link between emission sources and geological storage sites, determining both the technical feasibility and economic viability of Lithuania's broader carbon management strategy. The study finds that CO_2 transport systems must evolve in tandem with capture and storage infrastructure, forming an integrated value chain that ensures continuity from point-source collection to permanent sequestration. In practical terms, this involves a staged development approach beginning with flexible, small-scale logistics and progressing toward dedicated high-capacity pipeline networks as national capture volumes increase.

At present, Lithuania has no operational CO_2 pipeline infrastructure, and early phase deployment will therefore rely on road, rail, and maritime transport. Each mode presents distinctive cost structures and suitability thresholds. For short distances and smaller volumes (under 100,000 tonnes per year), road transport remains the most flexible and easily implementable option. Trucks offer modularity and scalability during demonstration projects but carry relatively high per-tonne costs due to fuel consumption, manpower, and compression requirements. Rail transport, by contrast, becomes advantageous for mid-range volumes and distances exceeding 100 kilometres, offering improved safety and cost efficiency per tonne but requiring dedicated loading terminals and cryogenic storage facilities.

Shipping emerges as the most cost-effective method for long-distance and cross-border CO_2 movement. The study highlights its critical role for Lithuania, given the country's access to the Baltic Sea and potential linkages to established storage hubs in the North Sea region. Shipping allows Lithuania to participate in multinational carbon-storage networks before domestic storage capacity is fully operational. Liquefied CO_2 can be transported in insulated pressurized tanks at approximately –50°C and 7 bar, with cost scaling that remains relatively insensitive to distance. For example, transport costs from Klaipėda to potential storage sites in the Danish or Norwegian North Sea are projected to be competitive with pipeline delivery beyond 1,500 kilometres, especially when handling volumes between 0.5 and 2.5 million tonnes per year.

Pipelines, however, represent the long-term backbone of any mature CO_2 transport system. Once capture volumes exceed roughly one million tonnes per year, pipelines achieve clear economies of scale, reducing per-tonne costs dramatically compared to other modes. . One of the latest official EU documents shows[1] that transport costs can also vary significantly depending on distance, volume, and geographical location. Recent EU estimates range from 2 to 15 EUR/t for pipelines and 12 to 30 EUR/t for shipping. It worth to mention that in case of Lithuania, completely new CO_2 transport infrastructure should be built and it could lead even to higher prices. Offshore pipelines are substantially more expensive typically 50–100% higher due to installation complexity and maintenance requirements. Nevertheless, once established, pipeline systems offer

[1] European Commission, Joint Research Centre, Martinez Castilla, G., Tumara, D., Mountraki, A., Letout, S., Jaxa-Rozen, M., Schmitz, A., Ince, E. and Georgakaki, A., *Clean Energy Technology Observatory: Carbon Capture, Utilisation and Storage in the European Union - 2024 Status Report on Technology Development, Trends, Value Chains and Markets*, Publications Office of the European Union, Luxembourg, 2024, https://data.europa.eu/doi/10.2760/0287566, JRC139285.

continuous high-volume throughput with minimal operational emissions, making them essential for large-scale decarbonization efforts.

For early-stage development, a hybrid system combining road, rail, and ship transport is recommended. This flexible configuration would enable Lithuania to launch pilot carbon-capture projects without waiting for extensive pipeline infrastructure. The Klaipėda seaport, with its existing energy logistics facilities, is identified as a natural focal point for early export operations. The creation of temporary liquefaction and storage terminals at Klaipėda could support small-scale exports of captured CO_2 to regional storage sites in Norway or Denmark, bridging the gap until domestic geological storage is available.

The study also outlines key technical parameters influencing transport costs and safety. Maintaining CO_2 in a dense phase either liquid or supercritical minimizes volume and improves transport efficiency. Pressure management and temperature control systems are therefore essential across all modes. Pipeline designs must account for phase stability, corrosion control, and pressure drops along the route, requiring the use of specialized steel alloys and protective coatings. For shipping and rail, attention is given to liquefaction energy demand, typically accounting for 10–15% of total transport costs, and to boil-off management during storage. Safety protocols mirror those in existing liquefied gas industries, with controlled venting systems and multi-layer containment barriers ensuring environmental and operational integrity.

Economically, transport infrastructure represents one of the largest cost components of carbon capture and storage (CCS) systems. The report demonstrates that clustering emitters into shared transport corridors can substantially reduce costs by leveraging economies of scale. In Lithuania's case, potential cluster formation is foreseen in Kaunas, Telšiai, and Šiauliai counties, where industrial CO_2 emissions are geographically concentrated. From these centres, captured carbon could be aggregated and routed either westward toward the Klaipėda export hub or northward toward cross-border connections with Latvia. The creation of such regional CO_2 networks would also enhance investment attractiveness by reducing the need for each emitter to construct standalone transport solutions.

Environmental and social factors are carefully considered in the study's findings. Although CO_2 transport by pipeline or ship presents minimal environmental risk when properly managed, public perception remains a critical issue. Clear communication and transparent risk assessments will be essential to maintain public confidence. Infrastructure corridors should avoid densely populated areas and environmentally sensitive zones, while emergency response systems must be incorporated into design and permitting stages. Furthermore, integration with existing infrastructure, such as repurposing natural gas pipelines where technically feasible could reduce environmental impact and accelerate development timelines.

From a strategic standpoint, Lithuania's CO_2 transport vision aligns with European Union policy objectives emphasizing interoperability and cross-border cooperation. Participation in the developing European CO_2 transport backbone would allow Lithuania to connect its industries with multiple storage destinations, creating flexibility and resilience. This networked approach also facilitates investment from international stakeholders, who view shared infrastructure as a means of de-risking large scale decarbonization projects.

The overall findings position CO_2 transportation as both a technological enabler and a policy challenge. In the near term, Lithuania must focus on establishing flexible transport logistics to support pilot-scale carbon capture and utilization or storage (CCUS) projects. In parallel, long-term planning should prioritize pipeline route identification, permitting, and integration into European carbon infrastructure initiatives. With strategic investment and regulatory coordination, Lithuania could develop a cost-effective, safe, and adaptive CO_2 transport network capable of supporting the country's transition toward net-zero industrial emissions while strengthening its role in the wider Baltic and European decarbonization corridor.

9. Main Findings on regulation of CCUS and other innovative technologies

The international and European legal environment governing carbon capture, utilisation and storage (CCUS) has evolved rapidly over the past two decades, reflecting both the urgency of climate commitments and the complex institutional landscape shaping their implementation. At the global level, a web of treaties and conventions rather than a single overarching instrument forms the basis for regulating CCUS. The United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement have each provided the normative space in which carbon capture and storage (CCS) is recognised as a legitimate mitigation pathway. The Intergovernmental Panel on Climate Change (IPCC) has further supplied the scientific rationale for this recognition, concluding that CCS will be indispensable for reaching net-zero objectives, particularly in hard-to-abate sectors such as steel, cement, and chemicals.

Parallel to climate treaties, marine and regional frameworks have addressed the environmental integrity of sub-seabed storage. The London Convention and its 1996 Protocol, together with subsequent amendments, were the first to explicitly permit CO_2 injection beneath the seabed under strict conditions. The United Nations Convention on the Law of the Sea (UNCLOS) and the 1992 Helsinki Convention for the Baltic Sea complement these provisions, although the latter continues to prohibit CO_2 storage within its jurisdiction. In this respect, Lithuania and other Baltic states remain constrained by the convention's ban, even as regional partners begin informal dialogue on potential revision. The Espoo Convention and the Strategic Environmental Assessment Protocol extend these obligations to transboundary impact assessment, ensuring that CCS projects crossing national borders undergo rigorous consultation and environmental review.

Within the European Union, the regulatory system for CCUS has matured into one of the most comprehensive in the world. The bloc's climate neutrality target for 2050 and interim 2040 goal of a 90 percent net emission reduction depend heavily on large-scale deployment of CCUS. The *Net-Zero Industry Act* and the twin Commission Communications—*Securing our Future* and *Towards an Ambitious Industrial Carbon Management for the EU*—anchor this policy framework. Together they establish clear milestones: at least 50 million tonnes of annual CO_2 injection capacity by 2030 and a fully functioning single market for carbon transport and storage by 2040. The strategy links industrial decarbonisation to infrastructure investment, mapping storage potential, and harmonising permitting procedures across Member States.

Legally, the EU system rests on a network of interlinked instruments. The 2009 CCS Directive provides the backbone, defining the requirements for site selection, permitting, monitoring, closure, and long-term liability. It entrusts Member States with determining suitable geological formations but requires Commission oversight to ensure uniform safety standards. The Environmental Liability Directive, the Environmental Impact Assessment Directive, and the Strategic Environmental Assessment Directive together guarantee that CCS activities adhere to high environmental protection and transparency standards. The EU ETS Directive and the Carbon Border Adjustment Mechanism integrate CCUS into Europe's carbon market architecture, ensuring that permanently stored or chemically bound CO_2 is recognised as non-emitted. Complementary regulations, such as TEN-E and TEN-T, extend support to cross-border CO_2 infrastructure, allowing designated *Projects of Common Interest* to benefit from streamlined permitting and EU funding.

Despite this robust legal edifice, implementation remains uneven. The CCS Directive grants Member States the right to prohibit geological storage within their territory, a clause several have exercised. Lithuania, aligning with the Helsinki Convention, has banned any form of CO_2 injection or storage in its subsurface or territorial waters since 2020. Nevertheless, it continues to participate in regional decarbonisation efforts through planned export corridors and participation in the *Baltic CCS Consortium*, which envisages capturing emissions in Lithuania and Latvia for transport to offshore storage sites via the Port of Klaipėda. This strategic stance prioritises environmental caution while enabling engagement in the emerging European CO_2 market.

At the Union level, guidance documents issued in 2024 clarify the operationalisation of the CCS Directive. They outline best practices for site risk management, geological characterisation, monitoring protocols, liability transfer, and financial security. These guidelines signal a shift from conceptual regulation toward practical governance. The EU's approach to CO_2 transport has likewise evolved: under the Net-Zero Industry Act, all transport modes, including pipelines, shipping, road, and rail are now legally recognised, ending long-standing ambiguity that had constrained maritime projects. Simultaneously, amendments to the Monitoring Regulation under the EU ETS confirm that CO_2 carried by ship can qualify for emission deductions, provided it is demonstrably and permanently stored.

For Lithuania, these developments present both regulatory challenges and strategic openings. To participate fully in the European CCUS value chain, the country must transpose the updated CCS Directive with precision, ensure consistent terminology, and establish an independent authority to regulate CO_2 transport infrastructure. Transparent tariff methodologies and guaranteed third-party access mirroring the Danish and Belgian models will be crucial for preventing monopolisation of emerging CO_2 networks. In the medium term, accession to the London Protocol and active involvement in its 2009 amendment on transboundary storage would enhance Lithuania's capacity to export captured CO_2 within a secure legal framework.

At the technological frontier, the EU's carbon capture and utilisation (CCU) and carbon removal policies are converging into a single industrial carbon management regime. The 2024 Delegated Regulation (EU) 2620 under the ETS Directive defines conditions for recognising *permanent chemical binding* of CO_2 in products, particularly in mineralised construction materials, while the Carbon Removal Certification Framework provides the first EU-wide system for verifying both permanent and long-term storage in materials. Lithuania has begun aligning its legislation with these instruments, integrating permanent CO_2 utilisation into its emissions accounting and promoting the use of biogenic CO_2 for synthetic fuel production. By 2050, the national strategy foresees balancing residual industrial emissions through capture, utilisation, and export of carbon to offshore storage facilities.

In summary, CCUS regulation in Europe is moving from fragmented experimentation to coherent governance. The interplay of climate law, environmental protection, market design, and industrial policy is producing an integrated framework that combines innovation incentives with strict safety and transparency standards. For Lithuania, the strategic task lies in embedding these European rules domestically transforming current prohibitions into a proactive framework that enables participation in the regional carbon cycle while maintaining high environmental integrity.

10. Main emitters in Kaunas, Šiauliai, Telšiai Counties

Kaunas county (Annex I)

The main CO2 emitters in Kaunas county (source: Innovation Agency of Lithuania, 2024).

Kaunas County stands as one of Lithuania's most industrially consolidated territories, combining large-scale chemical production, district heating, waste-to-energy generation, food processing, and a broad portfolio of small and medium combustion-based installations. The structure of CO_2 emissions in the county reflects both historic industrial development patterns and contemporary energy transitions taking place across the region.

The single most significant emitter in the county is AB "Achema," located in Jonava District. As the largest nitrogen fertilizer producer in the Baltic region, Achema's production chain is built around natural gas as both a feedstock and an energy source. Ammonia (NH_3) production via steam methane reforming (SMR) generates a concentrated CO_2 stream that is energetically and chemically suited for capture. Nitric acid production via the Ostwald process is associated with N_2O emissions, while CO_2 emissions occur indirectly from upstream feedstock production and process energy consumption. Combustion emissions originate from a range of auxiliary boilers, steam production facilities, and heat-generation units spread across several operational blocks. Together, these forms of emissions account for the bulk of Kaunas County's industrial fossil CO_2. The concentration of high-purity streams means that Achema represents the county's most viable anchor point for early CCUS deployment, following the model of large fertilizer plants integrated into industrial carbon capture clusters in France (Normandy), Germany (Leuna), and the UK (Humber).

A second major fossil emitter is Kauno Kogeneracinė Jėgainė (KKJ), the waste-to-energy combined heat and power (CHP) plant supplying a substantial share of Kaunas city's district heating. Although its feedstock contains a high proportion of biogenic waste, the non-biogenic fraction results in significant fossil CO_2 emissions. The plant's flue gases are well suited for post-combustion capture technologies such as amine scrubbing or emerging solid-sorbent-based systems. Because high-temperature steam is already available within the plant, the integration of CO_2 capture does not require major restructuring of plant thermodynamics. KKJ also provides a strategic opportunity: its location within the Kaunas metropolitan area means that a CO_2 capture unit installed here would serve as a central collection point for both municipal and industrial CO_2 streams.

AB Kauno Energija, the region's main district heating utility, forms the third substantial fossil emission source. The utility operates on mixture of bio based and natural gas fired boilers and combined heat units distributed across the city. These facilities collectively contribute a meaningful portion of the county's fossil CO_2 emissions. While no single installation reaches the scale of Achema or KKJ, their aggregated output forms a substantial share of the county's footprint. In international decarbonization strategies such as Germany's federal Heat Transition Plan[2] and the UK's Clean Heat Market Mechanism[3] district heating systems are priority candidates for progressive electrification through large-scale heat pumps, the introduction of thermal

[2] https://www.energieforschung.de/en/research-missions-for-the-energy-transition/research-missions/mission-heat-transition-2045

[3] https://www.gov.uk/government/consultations/clean-heat-market-mechanism

storage, and the transition towards biomass or hydrogen-ready combustion units. Kaunas Šilumos Tinklai fits this international model closely: electrification of baseload heat, supplemented by waste heat recovery and modernised peak-load boilers, offers a realistic path to deep decarbonisation without relying exclusively on CCUS.

Nordic Sugar Kėdainiai represents the county's largest food-processing emitter. As a sugar refinery, its CO_2 emissions are primarily linked to natural-gas-based process heat and steam used during beet processing campaigns. While the industrial process itself does not inherently generate CO_2, the seasonal thermal loads remain substantial. European sugar-processing plants in France and Germany increasingly deploy hybrid decarbonisation strategies: onsite biomass boilers, electrified steam production, biogas from beet residues, and heat-recovery systems. These approaches are directly applicable to Kėdainiai and offer rapid implementation potential without the need for large-scale infrastructure investment.

In addition to these major emitters, Kaunas County contains a diverse group of medium-size industrial installations, including chemical intermediates producers, food processors, municipal boiler houses, and various manufacturing facilities that rely on 1–20 MW thermal units. These plants individually emit modest amounts of fossil CO_2 but collectively contribute significantly to regional emissions. Their decarbonisation pathways align with international guidance for distributed industrial heat users: progressive electrification, high-efficiency electrified boilers, industrial heat pumps, and selective transition to sustainably sourced biomass. While CCUS is generally not technically or economically viable at this scale due to the dispersed nature of the emissions, these facilities can be integrated into broader low-carbon heat and energy planning.

A very large number of small emitters are also present in the county dataset, particularly from the agricultural sector. These include pig farms, poultry farms, grain dryers, small natural gas fired boilers, and straw fuel systems located throughout Jonava, Kėdainiai, Kaišiadorys, and Kaunas district municipalities. Emissions from these facilities typically amount to a few tonnes to several tens of tonnes of fossil CO_2 per year. For Kaunas County, this grouping approach ensures that small emitters do not distort regional planning, while still contributing to long-term carbon neutrality objectives.

Looking across sectors, Kaunas County's emissions landscape aligns well with the dual-track decarbonisation architecture applied in leading European industrial strategies. High-value, process-based emitters namely Achema and KKJ require CCUS as a central pillar of their long-term transition. Medium sized emitters must focus on electrification, efficiency, and flexible fuel switching. Small emitters are best served by streamlined replacement schemes and targeted incentives. This tripartite structure also provides a practical basis for infrastructure planning: a county-level CO_2 corridor is feasible only because of the presence of major industrial sources, while separate pathways can accommodate the smaller emitters.

In conclusion, Kaunas County's industrial emissions profile offers both challenges and strong opportunities for structural decarbonisation. The presence of Achema provides a clear anchor for potential CCUS deployment, the waste-to-energy and district-heating systems present scalable opportunities for emissions reduction, and the distributed network of medium and small emitters can be addressed through electrification and equipment modernisation. The combination of these elements positions Kaunas County as a core component of Lithuania's broader industrial decarbonisation strategy, capable of aligning fully with European long-term climate neutrality requirements.

Šiauliai County (Annex II)

The main CO_2 emitters in Šiauliai county (*source: Innovation Agency of Lithuania, 2024*)

Šiauliai County's emissions landscape is dominated by a cluster of heavy industrial installations in Akmenė district, most notably the cement manufacturing complex (AB Akmenės Cementas), which forms the single largest fossil CO_2 source in the county. The dataset shows multiple production units: clinker kilns, calcination systems, and high-temperature combustion lines, each contributing substantial fossil CO_2 volumes, with the main clinker line alone exceeding 570,000 tCO_2/y. Additional units emit between 80,000–200,000 tCO_2/y depending on operating load. These emissions arise from two sources: fuel combustion (shale oil, natural gas, diesel) and unavoidable process CO_2 from limestone calcination. This mirrors the emissions structure of European cement clusters in Germany's North Rhine–Westphalia[4] and France's Occitanie[5], where CCS is the main deep-decarbonisation route for process emissions.

Medium emitters include wood-processing and paper-related plants (NACE 162900, 171200), producing 20,000–33,000 tCO_2/y, primarily from wood dryers, steam boilers, and combined heat systems often fuelled with mixed biomass and residual fossil fuels. Although biomass contributes significantly, fossil fractions remain substantial. European practice suggests electrification of drying processes, high-temperature industrial heat pumps, and substitution of fossil co-fuels with biogenic residues.

Municipal district heating systems across Šiauliai city, Radviliškis, Joniškis, Pakruojis, and Kelmė also appear in the dataset, with fossil CO_2 outputs ranging from 5,000–12,000 tCO_2/y. These systems rely on natural gas boilers supplemented with wood-fuel biomass units, consistent with mid-scale Central European heating grids. Decarbonisation follows the standard EU triple pathway: large heat pumps, thermal storage, and peak-load modernisation.

A long tail of small agricultural and municipal emitters, such as grain dryers, poultry houses, farm boilers emit 100–2,000 tCO_2/y each. International practice demonstrates these are best addressed through equipment replacement, electrification, and subsidy-driven upgrades.

Decarbonisation solutions mirror the Feasibility Study: CCS for cement, electrification and biomass for medium industry, and targeted replacement schemes for small emitters.

Telšiai County CO_2 (Annex III)

The main CO_2 emitters in Telšiai county (*source: Innovation Agency of Lithuania, 2024*)

Telšiai County's emissions profile is overwhelmingly dominated by AB ORLEN Lietuva, the refinery complex in Mažeikiai, which is one of the largest in Lithuania. The dataset shows several refinery units (NACE 192000 – Production of refined petroleum products), each contributing between 160,000–855,000 tCO_2/year, depending on the process block and energy demand. The refinery's CO_2 emissions originate from high-temperature furnaces, crude distillation units, FCC regenerators, hydrogen production units (SMR), and large steam systems. These emissions mirror

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[4] https://cdn.catf.us/wp-content/uploads/2022/02/14110653/role-carbon-management-climate-neutral-north-rhine-westphalia.pdf

[5] https://www.holcim.com/what-we-do/green-operations/ccus/carbocleartech

those of major European refineries such as TOTAL Gonfreville (France)[6], where decarbonisation strategies focus heavily on CCS, electrification of utility systems, low-carbon hydrogen, and deep energy efficiency.

Medium emitters in the county include food-processing companies in Plungė district (NACE 102000 – fish processing), thermal oil and steam boiler systems used in Telšiai district for bakery and meat sectors (NACE 105100, 104100), and wood-processing boilers (NACE 161000). Their emissions, typically 7,000–30,000 tCO_2/year originate from natural-gas steam systems, thermal oil heaters, and biomass-fossil hybrid combustion. Similar installations in France and Germany are decarbonised through electrified steam production, heat pumps, and conversion to biogenic residues.

Municipal district heating systems appear as smaller but relevant contributors (Plungė, Telšiai, Rietavas). These produce 9,000–12,000 tCO_2/year, operating mixed biomass and natural-gas boilers. European models (Danish DH systems, German Kommunalwerke) suggest combined electrification and biomass optimisation.

The long tail of small emitters consists of farming dryers, agricultural boilers, micro industrial sites, and small district heating units. These typically emit <1,000 tCO_2/year and are best addressed through replacement schemes, heat pumps, and electrification.

Decarbonisation pathways based on the Feasibility Study include CCS for ORLEN, electrification and biomass for medium industry, and targeted replacement for small emitters.

[6] https://totalenergies.com/news/news/hydrogen-decarbonization-refineries-europe

11. Consolidated action plan

Central and Northern Lithuania represent the core of the country's industrial emissions landscape, anchored by three high-value counties: Kaunas, Šiauliai and Telšiai. Each county contains a concentration of large industrial emitters, diverse medium-sized manufacturing assets, and a broad dispersion of small combustion-based facilities. Collectively, these territories form the backbone of Lithuania's industrial economy and are simultaneously decisive to the country's 2050 climate neutrality trajectory. Their decarbonisation requires a strategic, multi-layered framework aligning technology readiness, infrastructure planning, sector-specific needs and cross-county coordination. The hybrid structure of this chapter reflects international best practices used in Germany's chemical and industrial parks, the UK's Cluster Sequencing Programme and France's cross-regional SNBC planning approach.

Across the three counties, emissions are dominated by four strategic sectors: fertilisers (Kaunas), cement (Šiauliai), refining (Telšiai) and waste-to-energy plus district heating (Kaunas). These four sectors alone account for the majority of fossil CO_2 emissions, comparable in structure to industrial clusters in North Rhine–Westphalia[7], Humber[8], and the Port of Antwerp[9]. Supporting these anchor sectors is a diversified mix of medium industrial emitters wood processing, food production, glass, chemical intermediates, sugar refining, and packaging and a long tail of agricultural and municipal boilers.

The emissions topology reveals cross-county complementarity: Kaunas hosts the largest chemical point source (Achema), Šiauliai hosts Lithuania's dominant process-based cement cluster, and Telšiai hosts the ORLEN Lietuva refinery, a strategic Baltic fuels asset. Together they form a natural corridor for CCUS, low-carbon fuels and industrial electrification systems.

Across the three counties, four high-value clusters emerge:

1. Fertilisers (Kaunas – Achema): High-purity CO_2 streams ideal for CCUS integration.

2. Cement (Šiauliai – Akmenės Cementas): Process CO_2 unavoidable; CCS/oxyfuel required.

3. Refining (Telšiai – ORLEN Lietuva): Multi-stream emissions ideal for hub-scale CCUS.

4. Energy & Heat (KKJ, district heating): Waste-to-energy and city-scale boilers ideal for amine capture or electrified heat.

Supporting clusters include food, wood processing, packaging and chemicals. These form a dense set of medium thermal loads with high electrification potential.

Based on industrial archetypes and the Feasibility Study, the following pathways could be applied:

CCUS CORRIDOR: Linking Achema, Akmenės Cementas and ORLEN Lietuva into a single CO_2 transport system (pipeline or multimodal).

7 https://bioregions.efi.int/bioregions/north-rhine-westphalia/
8 https://www.humberindustrialclusterplan.org/
9 https://www.portofantwerpbruges.com/en/business/industry

INDUSTRIAL ELECTRIFICATION: High-temperature e-boilers, industrial heat pumps, and upgraded grid capacity.

BIOMASS/BIOGAS OPTIMISATION: Sustainable use in food, wood and district heating sectors.

HYDROGEN TRANSITION: For ammonium fertilizers, refining, high-temperature cement kilns and certain industrial boilers post 2035.

DISTRICT HEATING EVOLUTION: Heat pumps, thermal storage, and low-carbon peak capacity.

SMALL EMITTER REPLACEMENT: Electrification-first replacement, solar-thermal hybrids, and subsidy schemes.

Regional CO_2 transport & storage architecture:

The three counties naturally align along a prospective Lithuanian CO_2 corridor. Achema and Akmenė act as high-volume inland anchor points, while Mažeikiai (ORLEN) offers coastal proximity for export routes. Transport options include:

- Pipeline connecting Jonava–Akmenė–Mažeikiai. However, the possibilities to connect Lithuania’s major CO_2 emitters into an optimal pipeline network must be analysed in details, creating conditions for the most efficient and economically beneficial solution.
- Rail-based/trucks CO_2 transport for flexible multimodal routing connecting smaller emmiters.
- Maritime export options via Klaipėda for offshore Nord Sea storage facilities.

It is important to mention that the emerging CCS Baltic Consortium represents the most advanced and strategically significant cross-border CO_2 infrastructure initiative in the Eastern Baltic region. Bringing together industrial emitters, technology providers and infrastructure developers across Lithuania and Latvia, the Consortium is designing a fully integrated value chain linking CO_2 capture at inland industrial sites with multimodal transport and offshore geological storage. Its concept foresees a unified regional corridor combining pipeline, rail and maritime logistics and leveraging access to deep saline aquifers and hydrocarbon fields in the Eastern Baltic. For Lithuania, the initiative provides the first credible pathway to industrial-scale CO_2 management, enabling high-volume emitters in Kaunas, Šiauliai and Telšiai counties to access shared infrastructure rather than pursuing isolated, cost-intensive solutions. By aligning regional planning with EU decarbonisation priorities and unlocking economies of scale for CCUS deployment, the CCS Baltic Consortium forms a foundational pillar for the long-term transition of the entire industrial corridor.

Investment priorities and timeline:

- Hydrogen production & use in refining and selected industries (2026–2040)
- CCUS at Achema, Akmenės Cementas and ORLEN (2028–2038).
- Electrification of medium industry (2026–2035).

- District heating heat pumps, partial replacement, creating conditions for the most efficient and economically beneficial solution.   (2027–2032).
- Grid reinforcement for industrial electrification (2025–2035).
- Small emitter replacement (2025–2030).

Roadmap to 2050:

The combined decarbonisation pathway envisions:

- 2030: Electrification of medium industry underway; District Heating partially electrified.
- 2035: Hydrogen-ready infrastructure; ready infrastructure for CCS Baltic project.
- 2040: Full CCUS operation across major emitters.
- 2050: Net-zero industrial corridor across three counties.

Onshore CO_2 storage potential in Lithuania:

Despite the presence of geologically suitable formations, Lithuania currently does not allow onshore geological CO_2 storage. The Feasibility Study identifies two technically promising Cambrian saline aquifers, such as Syderiai, Vaškai and D11, with combined theoretical (upper-bound) storage capacity ranges, based on information available in peer-reviewed scientific manuscripts, ranging from 41.5 to more than 407 Mt CO_2, alongside the Gargždai zone of uplifts with an estimated 31.3–267 Mt CO_2 storage capacity. These formations exhibit favourable depth, porosity and caprock characteristics consistent with international CCS site-selection criteria.

Additional structural opportunities exist within the Telšiai Fault Zone, which compartmentalises parts of the Cambrian Deimena Formation and demonstrates good reservoir properties suitable for small-scale or pilot projects. However, the majority of Lithuania's 76 identified onshore Cambrian uplifts are small in size (<2 Mt) and unsuitable for industrial deployment.

Despite the technical viability, domestic geological storage remains prohibited under current Lithuanian law, and national strategic documents reaffirm this restriction. As a result, any captured CO_2 must be transported to neighbouring jurisdictions or North Sea storage sites. Offshore storage beneath the Baltic Sea is likewise constrained due to the Helsinki Convention, which prohibits sub-seabed disposal of CO_2, and Lithuania's non-ratification of the 2009 London Protocol amendment, which would otherwise permit cross-border CO_2 transport for offshore sequestration.

Given these limitations, Lithuania's near and medium-term decarbonization strategy should prioritize CO_2 export infrastructure, including a multi-modal transport corridor and a CO_2 terminal in Klaipėda, while maintaining optionality for future onshore storage should the regulatory environment and technological capabilities evolve.

Considerations on Regulatory Environment

Based on the conclusion that the global regulatory framework for CCS remains fragmented, no single international agreement consolidates the relevant rules. Instead, governance is spread across a range of treaties and conventions, resulting in overlapping or complementary provisions.

At the EU level, the regulations and directives —covering environmental liability, emissions trading, infrastructure development, and environmental impact assessment—together form a multifaceted framework that both enables CCUS deployment and addresses legal, financial, and environmental risks. Nevertheless, the fragmented nature of international regulation, coupled with the rapid adoption of new or amended legal acts over the past two years, has created implementation gaps and ongoing legal uncertainty. In the near future, additional legal regulations are expected to be adopted. Taken together, these factors indicate that the situation in this sector will remain highly dynamic in the coming years, requiring continuous monitoring and further legislative measures.

Therefore, it is highly recommended to ensure institutional capacity to perform the following functions:

- Ensure Continuous Regulatory Monitoring. Permanent institutional mechanism to track developments in international and EU law, assess their national implications, and prepare timely legislative adjustments.
- Strengthen Implementation Capacity. Adequate institutional and financial resources to regulatory bodies to effectively enforce CCUS-related legislation, oversee compliance, and manage risks related to environmental liability, infrastructure safety, and emissions monitoring.
- Engage in International and Regional Cooperation. EU-level consultations and international forums to shape future regulatory developments, while fostering bilateral and regional cooperation for knowledge sharing, infrastructure planning, and risk management.
- Institutionalize Stakeholder Consultation. Establish a structured consultation mechanism that enables stakeholders to provide input during the drafting, revision, and implementation of CCUS legislation, while also receiving authoritative guidance from government institutions. Such a mechanism would enhance regulatory transparency, reduce legal uncertainty, and strengthen stakeholder confidence.

CO_2 storage

Based on the conclusion that the regulation of CO_2 storage represents one of the most advanced and mature aspects of international CCS governance. International legal instruments have been adjusted to accommodate or restrict geological storage activities. The London Protocol, for instance, was amended to allow geological storage of CO_2 in sub-seabed formations, whereas the Helsinki Convention continues to impose a strict prohibition on such practices in the Baltic Sea region. At the European level, the adoption of the CCS Directive in 2009 marked a significant step toward harmonizing rules on geological storage, providing a uniform regulatory framework intended to ensure environmental safety and legal clarity. Nevertheless, the CCS directive simultaneously granted Member States discretion to opt out of permitting geological storage in their territories. This opt-out provision has led to an uneven regulatory landscape across the EU, where harmonization is achieved only among those Member States that have actively chosen to allow storage. Lithuania has exercised its right to prohibit geological storage within its jurisdiction.

National legislation explicitly bans the injection and permanent storage of CO_2 in diverse environments, including underground geological formations, aquifers, the marine water column, and geological strata beneath the seabed. This prohibition creates a legal environment in which regulatory flexibility is highly constrained. Consequently, while international and EU-level frameworks have evolved to accommodate geological storage as a legitimate climate mitigation tool, Lithuania's regulatory stance positions it outside this trajectory. Unless these prohibitions are revisited, Lithuania's role in the development of CCS infrastructure is likely to remain limited to other aspects of the value chain, such as CO_2 capture and cross-border transportation, rather than storage.

It is recommended that given Lithuania's commitment to the Helsinki Convention, ongoing active involvement in regional discussions and potential amendments is essential. The Helsinki Convention currently prohibits the dumping of waste into the Baltic Sea. This ban has been interpreted to include the storage of CO_2 in geological formations beneath the seabed. As a legally binding regional agreement, it means that even if Lithuania were willing to pursue offshore CO_2 storage, it would not be permitted unless the convention is amended. Lithuania can maintain its support for this ban, both in its national policies and during discussions within the convention's governing body. At the same time, Lithuania has an opportunity to engage in constructive regional dialogue about what the future might hold. In June 2023, some Baltic Sea states began informal talks on possibly amending Article 11 of the convention to allow for CO_2 storage, recognizing the current legal barrier. Any such change would require unanimous agreement among all contracting parties.

Although Lithuania currently prohibits all forms of CO_2 injection, it should consider amending its legal framework to allow limited CO_2 injection for research and pilot projects, based on a phased and risk-managed approach grounded in existing geological assessments, regulatory analysis, and established EU and international best practices. Such an exemption would align national regulation with EU priorities on innovation and climate neutrality, enabling Lithuanian institutions to participate in European and international research initiatives.

CO_2 transportation by sea

Based on conclusion that in the context of transboundary CO_2 export by sea, the principal international legal framework is established under the London Protocol, which permits Contracting Parties to agree on the transportation and offshore geological storage of CO_2. In 2009, an amendment to Article 6 was adopted to explicitly regulate the transboundary export of CO_2 for sub-seabed storage. However, this amendment has not yet entered into force due to the insufficient number of ratifications. To overcome this legal and procedural deadlock, the Contracting Parties introduced a mechanism for the provisional application of the 2009 Amendment in 2019, thereby enabling states willing to engage in cross-border CCS activities to proceed without awaiting full ratification. Importantly, the 2009 Amendment provides a legal basis for the participation of countries lacking domestic offshore storage capacity in international CCUS initiatives. Thus, the principal barrier to the development of transboundary CO_2 shipping and storage lies not in the design of the Protocol itself, but rather in the absence of coordinated political action—manifested in the failure to ratify the 2009 Amendment and the limited establishment of bilateral or regional frameworks

It is recommended while Lithuania maintains a prohibition on domestic geological storage, ratification of the London Protocol and its amendments could significantly enhance its international collaboration capabilities. The 2009 amendment explicitly enables cross-border CO_2 transport and storage agreements, contingent on mutual consent among involved countries. Ratifying this Protocol would clarify Lithuania's legal position, facilitating future CO_2 export initiatives without requiring domestic storage.

It's important to emphasize that although the London Protocol and its subsequent amendments support the idea of CO_2 storage beneath the seabed, they do not compel any country to permit such storage within its own territory. The relevant provision clearly states:

"Carbon dioxide streams referred to in paragraph 1.8 may only be considered for dumping, if:

1. disposal is into a sub-seabed geological formation; and
2. they consist overwhelmingly of carbon dioxide. They may contain incidental associated substances derived from the source material and the capture and sequestration processes used; and
3. no wastes or other matter are added for the purpose of disposing of those wastes or other matter."

The wording "may only be considered" underscores that ratifying the protocol does not obligate a country to establish its own CO_2 storage infrastructure. As such, joining the protocol would not conflict with Lithuania's national legislation or with its commitments under the Helsinki Convention, which currently prohibits CO_2 storage beneath the Baltic Sea. In fact, we can see that other countries bound by the Helsinki Convention—such as Finland and Estonia—have ratified both the London Protocol and its 2009 amendment.

CO_2 Transportation

Based on conclusion that the core principles of CO_2 transportation are currently embedded in the CCS Directive, which, among other provisions, stipulates rules on third-party access on a transparent and non-discriminatory basis, rules of dispute settlement over access to CO_2 transport infrastructure. Several Member States have gone further by adopting more detailed national regulations governing CO_2 transport; however, a comprehensive and harmonised EU-wide framework is still lacking. The Commission anticipates presenting a dedicated regulatory framework for cross-border CO_2 transport and storage infrastructure in the second half of 2026. Until then, the sector continues to operate under significant legal uncertainty, which complicates investment decisions and long-term infrastructure planning. However, even in the absence of harmonised EU regulation, there are certain aspects that should undoubtedly be addressed within national regulatory frameworks. These include the designation of a competent regulator and a network operator, the rules on unbundling and permissible infrastructure ownership models, the conditions for third-party access, and the establishment of appropriate tariff mechanisms.

The following actions are recommended:

<u>Review the transposition of the EU CCS Directive into National Law.</u> To provide a solid legal basis for developing CO_2 transport infrastructure, Lithuania should fully transpose the EU CCS Directive

(2009/31/EC) into its national legislation. This will create a comprehensive regulatory foundation, clarifying the roles, obligations, and legal responsibilities associated with CO_2 transport, storage, and related infrastructure. Clear transposition will also facilitate regulatory alignment with EU practices, supporting cross-border cooperation and infrastructure interoperability.

The CCS Directive was transposed into the legal system of the Republic of Lithuania in 2011. Therefore, the scope of legal regulation in the CCUS field has fundamentally changed, and it is recommended to review the transposition of the Directive due to certain inaccuracies. Article 3 of the CCS Directive provides definitions with the aim of ensuring that specific terms are understood uniformly throughout the EU. Thus, the precise transposition of these terms into national law is of great importance. However, significant discrepancies can be observed between the terminology used in the Lithuania’s Law on Geological Storage of Carbon Dioxide and the Directive. One example is as follows:

- CCS Directive: "pipeline network" means a pipeline, including associated pressurised parts, used to transport CO_2 to the storage site.
- National Law: Carbon dioxide pipeline (hereinafter – pipeline) – a pipeline, including associated pressure maintenance equipment, intended for transporting CO_2 to the storage site.

It is also possible that Article 22 of the CCS Directive, which relates to dispute resolution, has not been correctly transposed. The CCS Directive states:

1. Member States shall ensure that dispute settlement arrangements are in place, including the designation of a competent independent authority with access to all necessary information, in order to facilitate the expeditious resolution of disputes relating to access to transport networks and storage sites, taking into account the criteria referred to in Article 21(2) and the number of potential users of such access.

Meanwhile, Article 17(2) of the Lithuania’s Law on Geological Storage of Carbon Dioxide provides:

“Disputes concerning the use of storage sites shall be examined and resolved by the courts of the Republic of Lithuania in accordance with the procedure established by the laws of the Republic of Lithuania.”

Firstly, there is no mention of pipelines in the national provision. Secondly, courts do not guarantee the required prompt resolution of disputes.

<u>Establish Dedicated National CO_2 Transportation Regulations</u>. Lithuania should enact dedicated CO_2 transportation regulations clearly defining permitting procedures, operational responsibilities, and safety standards fortransportation modes, including pipelines, maritime shipping, and rail. Specifically, regulations should detail technical standards for pipeline integrity, liquefaction facilities, and safety protocols for maritime shipping, in line with the provisions outlined in the EU's Net Zero Industry Act and international maritime frameworks.

<u>Ensure Transparent and Non-Discriminatory Third-Party Access.</u> To facilitate an open and competitive CO_2 transport market, Lithuania could introduce clear and transparent principles for third-party access to CO_2 infrastructure. Rather than prescribing detailed tariff regulation, the

framework could focus on ensuring non-discriminatory access, transparency of methodologies, and predictability for market participants. Operators would outline the general structure and rationale of fees, demonstrating their link to actual service costs and infrastructure needs. Such an approach aligns with Article 21 of the EU CCS Directive and reflects emerging practices in countries, such as Denmark and Belgium, while allowing flexibility for industry-driven solutions.

Create an Independent Regulatory Authority for CO_2 Infrastructure. Establishing an independent national regulatory authority is essential to oversee compliance, regulate tariffs, mediate disputes, and coordinate strategic infrastructure planning. Modelled after successful international examples, such as Denmark's and Belgium's regulatory frameworks, this authority should be empowered to regulate both economic and technical aspects of the CO_2 transport sector, ensuring consistent implementation of EU standards.

It should be noted that the European Commission is planning to present a CO_2 transport and storage package in the second half of 2026, after which more details related to CO_2 transportation are expected to become clear.**CO_2 utilisation and direct air capture**

Based on conclusion that there is a wide spectrum of potential uses for captured CO_2, ranging from its permanent chemical storage in products such as construction materials to its reuse in applications where it is ultimately re-emitted, for example in the production of e-fuels, agricultural inputs, or certain chemical processes. The rapid advancement of these technologies, together with their improving economic viability, has created new opportunities for reducing greenhouse gas emissions through CO_2 reuse and even through direct air capture. In response, the European Union has increasingly fostered both CO_2 utilization and atmospheric capture, and in the past five years has adopted several legislative measures supporting these pathways. Regulation in this field is complex, as it intersects with renewable energy policy, the transport sector, and emerging climate legislation. The sector is highly dynamic, continually evolving with the development of new EU legal instruments, including methodologies for synthetic fuel production, carbon farming, the prospective inclusion of permanent carbon removals in the EU ETS, and the legislative agenda of the Clean Industrial Deal. Importantly, current EU policy tends to frame CCU regulation primarily in terms of incentivising and promoting CO_2 utilization, rather than focusing exclusively on the creation of a standalone regulatory regime for its use.

It is recommended that Lithuania establish a clear regulatory authority mandated to oversee CCU activities, accompanied by transparent consultation processes and stakeholder engagement mechanisms designed to foster societal trust and acceptance. In light of the sector's inherent complexity and rapid technological evolution, continuous monitoring of both legislative and technological developments should be ensured. Furthermore, to overcome the current fragmentation across multiple policy domains, transparency and legal certainty would be significantly strengthened through the adoption of a dedicated regulatory framework for CCU, rather than the continued dispersal of relevant provisions across disparate sectoral regulations.

Annex I.

The main CO_2 emitters in Kaunas county (*source: Innovation Agency of Lithuania, 2024*)

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014610	A	010000	AIVIKS	156628581	UAB "Beržų kompleksas " Šilų padalinys	Pigsties. Heaters	Burning	Natural gas	1,000 Nm^3/year	25,7	49,45682842	**0**
014610	A	010000	AIVIKS	156628581	UAB "Beržų kompleksas " Šilų padalinys	Administrative building boiler room 0.05 MW	Burning	Natural gas	1,000 Nm^3/year	17,2	33,09951163	**0**
011100	A	010000	AIVIKS	256605060	Pauliukų žemės ūkio bendrovė	Grain dryer	Burning	Furnace fuel	t/year	31	97,0388195	**0**
011100	A	010000	AIVIKS	256605060	Pauliukų žemės ūkio bendrovė	Boiler room 0.34 MW	Burning	Straw fuel	t/year	166	#N/A	**0**
014710	A	010000	AIVIKS	186107463	AB "Vilniaus paukštynas" Vilkiškių padalinys	Vilkiškiai division. Boiler plant 1.8 MW	Burning	Straw fuel	t/year	294,3	#N/A	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	VŠK Heizer GP-8 0.081 MW	Burning	Natural gas	1,000 Nm^3/year	5,8	11,16146322	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	Air heaters 36 pcs. 0.09 MW each	Burning	Natural gas	1,000 Nm^3/year	3793,2	7299,596949	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	VŠK Pegasus 0.15 MW	Burning	Natural gas	1,000 Nm^3/year	5,8	11,16146322	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	VŠK Attaek 0.025 MW	Burning	Natural gas	1,000 Nm^3/year	4,6	8,852194971	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	Gas boiler BOSCH GC2300IW 245P 0.024 MW	Burning	Natural gas	1,000 Nm^3/year	3,9	7,505121823	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	Gas boiler Buderus Logamax 0.028 MW	Burning	Natural gas	1,000 Nm^3/year	5,5	10,58414616	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	Gas boiler BOCSH GCV700LW 0.035 MW	Burning	Natural gas	1,000 Nm^3/year	4,5	8,65975595	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	Administration boiler room 0.0988 MW	Burning	Natural gas	1,000 Nm^3/year	18,7	35,98609695	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas	VŠK HVP-240-2 0.24 MW	Burning	Natural gas	1,000 Nm^3/year	10,1	19,43634113	**0**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas	Gas boiler Modratherm 0.045 MW	Burning	Natural gas	1,000 Nm^3/year	2,3	4,426097485	**0**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas	Gas boiler ACV 235 0.235 MW	Burning	Natural gas	1,000 Nm^3/year	12,4	23,86243862	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas	Gas boiler PKM-45 0.045 MW	Burning	Natural gas	1,000 Nm^3/year	2,4	4,618536507	**0**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas	Gas boiler ACV-200 0.2 MW	Burning	Natural gas	1,000 Nm^3/year	7,7	14,81780463	**0**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas	Gas boiler PKM-45 0.045 MW	Burning	Natural gas	1,000 Nm^3/year	2,6	5,003414549	**0**
014710	A	010000	AIVIKS	158902846	UAB Girelės paukštynas broilerių auginimo padalinys	Boiler room 0.05 MW	Burning	Natural gas	1,000 Nm^3/year	2,9	5,580731612	**0**
014710	A	010000	AIVIKS	186107463	AB "Vilniaus paukštynas" Darsūniškio padalinys	AB "Vilniaus paukštynas" Darsūniškis branch	Burning	Straw fuel	t/year	384	#N/A	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Lapainios padalinys	Lapaina division. Boiler room 0.5 MW	Burning	Coal	t/year	49,7	98,8159256	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Lapainios padalinys	Lapaina division. Diesel heaters 0.08 MW	Burning	Furnace fuel	t/year	36,5	114,2553843	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas"	Boiler room 0.9 MW	Burning	Coal	t/year	145,9	290,0853832	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					Morkūnų padalinys							
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Morkūnų padalinys	Poultry houses. Diesel air heaters	Burning	Furnace fuel	t/year	33	103,2993885	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas Jačiūnų padalinys	Jačiūnai division boiler house 2x0.56 MW	Burning	Liquefied petroleum gas	t/year	53,5	163,3809429	**0**
014700	A	010000	AIVIKS	158886370	S. Petkevičiaus įmonė "Petkus" Neprėkštos padalinys	Poultry houses. Gas air heaters 0.012 MW	Burning	Liquefied petroleum gas	t/year	46,9	143,2255369	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Paparčių padalinys	Boiler room No. 2 0.2 MW	Burning	Coal	t/year	16,3	32,4084424	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Paparčių padalinys	Boiler room No. 1 0.2 MW	Burning	Coal	t/year	16,3	32,4084424	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Paparčių padalinys	Poultry houses. Air heaters 0.08 MW	Burning	Furnace fuel	t/year	130,6	408,8151557	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Boiler room No. 11, 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry house No. 10 boiler room 0.2MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry house No. 9 boiler room 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Boiler room No. 4 of the poultry house 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry house No. 3 boiler room 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry house No. 1 boiler room 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Boiler room No. 12, 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Boiler room No. 8 of the poultry house 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Boiler room No. 7 of the poultry house 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry house No. 5 boiler room 0.2 MW	Burning	Coal	t/year	1,8	3,5788464	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry houses. Heaters 0.2 MW	Burning	Natural gas	1,000 Nm^3/year	300	577,3170633	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Dovainonių padalinys	Poultry houses. Until 2024-06-05	Burning	Natural gas	1,000 Nm^3/year	392,2	754,7458408	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas Pajautiškių padalinys	Air heaters ERMAF-90	Burning	Liquefied petroleum gas	t/year	84,8	258,9664291	**0**
014710	A	010000	AIVIKS	158891218	AB Kaišiadorių paukštynas Pajautiškių padalinys	Air heaters	Burning	Liquefied petroleum gas	t/year	13,2	40,31081208	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Prozariškių padalinys	Boiler room No. 3 0.395 MW	Burning	Furnace fuel	t/year	8,4	26,2943898	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Prozariškių padalinys	Poultry houses. Air heaters 0.06 MW	Burning	Furnace fuel	t/year	100,7	315,2196492	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Prozariškių padalinys	Boiler room No. 2 0.395 MW	Burning	Furnace fuel	t/year	8,4	26,2943898	**0**

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Prozariškių padalinys	Boiler room No. 1 0.593 MW	Burning	Furnace fuel	t/year	16,8	52,5887796	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Kairiškių padalinys	Boiler room No. 2 0.2 MW	Burning	Coal	t/year	32,7	65,0157096	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Kairiškių padalinys	Boiler room No. 1 0.332 MW	Burning	Furnace fuel	t/year	17,1	53,52786495	**0**
014700	A	010000	AIVIKS	158898910	UAB "Rumšiškių paukštynas" Kairiškių padalinys	Poultry houses. Air heaters 12 kW	Burning	Liquefied petroleum gas	t/year	46,5	142,0039971	**0**
014700	A	010000	AIVIKS	158886370	S. Petkevičiaus įmonė "Petkus" Triliškių padalinys	Poultry houses. Air heaters 0.012 MW	Burning	Natural gas	1,000 Nm^3/year	61,5	118,349998	**0**
014600	A	010000	AIVIKS	304771427	UAB "Bekonas LT"	Pig barns. Diesel heaters 44 kW	Burning	Gasoline	t/year	17,3	54,15392185	**0**

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014600	A	010000	AIVIKS	304771427	UAB "Bekonas LT"	Boiler room 0.28 MW	Burning	Natural gas	1,000 Nm^3/year	10,4	20,01365819	**0**
014600	A	010000	AIVIKS	142003527	UAB "Girkalnio kiaulių kompleksas"	Building No. 4. Barns for young and suckling pigs. Barn for weaned piglets No. 31	Burning	Liquefied petroleum gas	t/year	0	0	**0**
014600	A	010000	AIVIKS	142003527	UAB "Girkalnio kiaulių kompleksas"	Boiler room (2x42 kW)	Burning	Liquefied petroleum gas	t/year	0	0	**0**
132000	C	130000	AIVIKS	156514670	UAB "A Grupė"	Solid fuel boilers 2x0.9 MW	Burning	Wood fuel	t/year	332,5		420,066402
192000	C	190000	AIVIKS	301730724	UAB "NAPC" naftos produktų atliekų perdirbimo įrenginiai	Production fuel combustion plants 6.24 MW	Burning	Natural gas	1,000 Nm^3/year	563,7	1084,778762	
192000	C	190000	AIVIKS	301730724	UAB "NAPC" naftos produktų atliekų perdirbimo įrenginiai	Production fuel combustion plants 6.24 MW	Burning	Natural gas	1,000 Nm^3/year	116,8	224,7687767	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
161000	C	160000	AIVIKS	210753660	UAB "PLANKMARA"	Boiler room 1.4 MW	Burning	Wood fuel	t/year	299		377,7439224
162400	C	160000	AIVIKS	111627934	UAB BAUMANO PADĖKLAI	Dryer boiler room 0.5 MW	Burning	Wood fuel	t/year	217		274,1485992
310900	C	310000	AIVIKS	158959128	UAB "Clemence Richard"	Boiler room. Boilers No. 1 and No. 2 3.2 MW	Burning	Wood fuel	t/year	95		120,018972
172900	C	170000	AIVIKS	132878726	UAB "Aurika"	UAB "Aurika" boiler house 2.2 MW	Burning	Natural gas	1,000 Nm^3/year	154,3	296,9334096	
172900	C	170000	AIVIKS	132878726	UAB "Aurika"	UAB "Aurika" printing machines. Gas converter	Burning	Natural gas	1,000 Nm^3/year	66,1	127,202193	
222100	C	220000	AIVIKS	132039891	UAB "Kauno šilas"	Boiler room. Water heating boilers 0.23 MW	Burning	Liquefied petroleum gas	t/year	76,4	233,3140942	
222100	C	220000	AIVIKS	132039891	UAB "Kauno šilas"	Boiler room. Steam boiler 1.2 MW	Burning	Liquefied petroleum gas	t/year	152,7	466,3228034	
310900	C	310000	AIVIKS	133386126	UAB "Freda" H ir O. Minkovskių g. padalinys	Boiler room 2.8 MW	Burning	Wood fuel	t/year	337,7		426,6358615

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
161000	C	160000	AIVIKS	302561234	UAB "AD Wood"	Boiler room 0.95 MW (t.š.006)	Burning	Wood fuel	t/year	660		833,816016
310900	C	310000	AIVIKS	133386126	UAB "Freda" Piliakalnio g. padalinys	Boiler No. 2 0.95 MW	Burning	Wood fuel	t/year	407,6		514,9445578
310900	C	310000	AIVIKS	133386126	UAB "Freda" Piliakalnio g. padalinys	Boiler No. 1 1.0 MW	Burning	Wood fuel	t/year	333,5		421,3297596
132000	C	130000	AIVIKS	135770428	UAB "LININGAS"	Gas-fired finishing drying machine 4x35 kW	Burning	Natural gas	1,000 Nm^3/year	70,1	134,8997538	
132000	C	130000	AIVIKS	135770428	UAB "LININGAS"	Steam boilers 5,568 MW	Burning	Natural gas	1,000 Nm^3/year	617,3	1187,926077	
236100	C	230000	AIVIKS	133667027	UAB "Kauno gelžbetonis"	Natural gas heat generators 8x0.3 MW	Burning	Natural gas	1,000 Nm^3/year	89	171,2707288	
310900	C	310000	AIVIKS	234003980	UAB "Saloža"	Water heating boiler KAISTA-500 0.5 MW	Burning	Wood fuel	t/year	87,8		110,9227973
108200	C	100000	AIVIKS	302923103	UAB "Mondelez Lietuva Production"	Steam boiler No. 2 TDA 3.27 MW	Burning	Natural gas	1,000 Nm^3/year	923,3	1776,789482	
110700	C	110000	AIVIKS	135774259	UAB "Kauen craft"	Boiler room. Water heating boiler	Burning	Natural gas	1,000 Nm^3/year	114	219,3804841	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
110700	C	110000	AIVIKS	135774259	UAB "Kauen craft"	Boiler room. Steam production	Burning	Natural gas	1,000 Nm^3/year	88	169,3463386	
109200	C	100000	AIVIKS	135058950	UAB AKVATERA LT	Steam boiler 1.13 MW	Burning	Natural gas	1,000 Nm^3/year	226,3	435,4895048	
172900	C	170000	AIVIKS	302977909	UAB "VINAPACK"	II dryer liquefied gas burners 1 MW	Burning	Liquefied petroleum gas	t/year	290	885,616326	
172900	C	170000	AIVIKS	302977909	UAB "VINAPACK"	I dryer liquefied gas burners 2 MW	Burning	Liquefied petroleum gas	t/year	390	1191,001266	
310900	C	310000	AIVIKS	304458304	UAB FREDA II	Boiler room 2.5 MW	Burning	Wood fuel	t/year	1069		1350,529274
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Milk dryer No. 14. Burner 2.3 MW	Burning	Natural gas	1,000 Nm^3/year	168,4	324,0673115	
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Milk dryer No. 15. Burner 4.2 MW	Burning	Natural gas	1,000 Nm^3/year	2430,4	4677,037969	
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Milk dryer No. 16. Burner 2.85 MW	Burning	Natural gas	1,000 Nm^3/year	1178,9	2268,66362	
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Water heating boiler (t.š.004) 2x0.55 MW	Burning	Natural gas	1,000 Nm^3/year	42,4	81,59414495	

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Water heating boiler (t.š.003) 0.55 MW	Burning	Natural gas	1,000 Nm^3/year	42,4	81,59414495	
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Steam boiler (no. 002) 3.8 MW	Burning	Natural gas	1,000 Nm^3/year	1249,9	2405,295325	
105100	C	100000	AIVIKS	302291237	ŽŪK "Pienas LT"	Steam boiler (t.š.001) 3.8 MW	Burning	Natural gas	1,000 Nm^3/year	1249,9	2405,295325	
293100	C	290000	AIVIKS	304546245	UAB HELLA Lithuania	Boiler room 1.77 MW	Burning	Other liquid fuels	t/year	11,9		#N/A
293100	C	290000	AIVIKS	304546245	UAB HELLA Lithuania	Boiler room 1.77 MW	Burning	Natural gas	1,000 Nm^3/year	107,1		206,1021916
293100	C	290000	AIVIKS	306158800	UAB Continental Autonomous Mobility Lithuania	Cogeneration power plant	Burning	Natural gas	1,000 Nm^3/year	0		0
325000	C	320000	AIVIKS	304515965	UAB Hollister Lietuva	Boiler room 3.3 MW	Burning	Natural gas	1,000 Nm^3/year	172,7	332,3421894	
162320	C	160000	AIVIKS	300095834	UAB "MEDŽIO FABRIKAS NIDA"	VŠK No. 1 and No. 2 (1.8 MW)	Burning	Wood fuel	t/year	400		505,34304
254000	C	250000	AIVIKS	110080729	AB Giraitės ginkluotės gamykla	Boiler room 2.4 MW	Burning	Natural gas	1,000 Nm^3/year	128,9	248,0538982	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
161000	C	160000	AIVIKS	110877536	UAB "ECOWOOD"	Boiler room 0.5 MW	Burning	Wood fuel	t/year	999		1262,094242
103900	C	100000	AIVIKS	161612618	UAB "Kėdainių konservų fabrikas"	Steam boiler "Viessmann Vitomax 200-HS" 2.98 MW	Burning	Natural gas	1,000 Nm^3/year	698,8	1344,763879	
101100	C	100000	AIVIKS	168586873	UAB "KREKENAVOS AGROFIRMA"	Steam boiler VIESSMANN 2.22 MW	Burning	Natural gas	1,000 Nm^3/year	218,2	419,9019441	
101100	C	100000	AIVIKS	168586873	UAB "KREKENAVOS AGROFIRMA"	Steam boiler 2.617 MW	Burning	Natural gas	1,000 Nm^3/year	0		0
101100	C	100000	AIVIKS	168586873	UAB "KREKENAVOS AGROFIRMA"	Water heating boiler 3.85 MW	Burning	Natural gas	1,000 Nm^3/year	0		0
162300	C	160000	AIVIKS	170679352	UAB "Doleta"	Boiler room 1.05 MW	Burning	Wood fuel	t/year	121,6		153,6242842
162300	C	160000	AIVIKS	170647924	UAB "Davi"	Boiler room 0.6 MW	Burning	Wood fuel	t/year	131,5		166,1315244
161000	C	160000	AIVIKS	125472426	UAB "POLYWOOD" Pakuonio padalinys	Solid fuel water heating boiler VVS 7	Burning	Wood fuel	t/year	1080		1364,426208

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
						DANSTOKER 4.64 MW						
161000	C	160000	AIVIKS	170794575	UAB "Strielčių lentpjūvė"	Sawdust drying line	Burning	Wood fuel	t/year	169		213,5074344
106120	C	100000	AIVIKS	135976734	UAB "Ekofrisa"	Steam boiler 0.99 MW	Burning	Agricultural waste	t/year	370,1		479,8439025
162400	C	160000	AIVIKS	133753017	UAB "Alsena"	Boiler room 1.6 MW	Burning	Wood fuel	t/year	1403,8		1773,501399
108400	C	100000	AIVIKS	300026425	UAB "Veiverių skonis"	Boiler room 0.65 MW	Burning	Coal	t/year	93,7	186,2988376	
310900	C	310000	AIVIKS	304073881	UAB "Bordena"	Boiler room (t.š.003) 1.6 MW	Burning	Wood fuel	t/year	230,5		291,2039268
102000	C	100000	AIVIKS	110723673	Lietuvos ir Norvegijos UAB "NORVELITA"	Solid fuel boiler room 0.8 MW	Burning	Wood fuel	t/year	1042,9		1317,555641
102000	C	100000	AIVIKS	110723673	Lietuvos ir Norvegijos UAB "NORVELITA"	Smoking chambers	Burning	Liquefied petroleum gas	t/year	63,2	193,0032821	
102000	C	100000	AIVIKS	110723673	Lietuvos ir Norvegijos UAB	Gas boiler 25 kW	Burning	Liquefied petroleum gas	t/year	12,1	36,95157774	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					"NORVELITA"							
102000	C	100000	AIVIKS	110723673	Lietuvos ir Norvegijos UAB "NORVELITA"	Liquefied gas boiler room 1.45 MW	Burning	Liquefied petroleum gas	t/year	260,3	794,9169988	
161000	C	160000	AIVIKS	135276917	UAB "Muramedа" Raseinių padalinys	UAB "Muramedа" biofuel boiler house 0.8 MW	Burning	Wood fuel	t/year	316		399,2210016
162400	C	160000	AIVIKS	272419240	UAB "Julisa"	Boiler room 2.3 MW	Burning	Wood fuel	t/year	599,3		757,1302097
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F1. Liquid – Other types of liquid fuels; Alternative fuels (Heating oil)	t/year	114,554	357,1757063	
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F2. Liquid – Other types of liquid fuels; Fuel oil	t/year	0		0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F3. Liquid – Other types of liquid fuels; Non-standard fuel oil	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F4. Liquid – Other liquid fuels; Other fuels (fuel mixtures)	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F5. Solid – Wood (not waste); Wood shavings, shavings, chipped wood	t/year	0		0

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F6. Solid – Wood (not waste); Wood sawdust, shavings, chopped wood (technological additive)	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	GHGs emitted during the process	F7. Material – Clay; Raw material mixture ($CaCO_3$)	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	GHGs emitted during the process	F8. Material – Clay; Raw material mixture ($MgCO_3$)	t/year	0		0

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	GHGs emitted during the process	F9. Material – CaO; Product (CaO) (expanded clay)	t/year	355,91	11,30298978	
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	GHGs emitted during the process	F10. Material – MgO; Product (MgO) (expanded clay)	t/year	355,91	1,78453274	
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F11. Solid – Wood (waste); Wood waste	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F12. Solid – Wood (waste); Wood waste (technological additive)	t/year	0		0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F13. Solid – Other types of solid biomass; Agricultural waste; husks, screenings	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F14. Solid – Other types of solid biomass; Firewood	t/year	0		0
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F15. Solid – Other types of solid biomass; Tobacco	t/year	0		0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
233200	C	230000	EU ETS	304178964	AB "Palemono keramika"	Boiler, ceramic firing furnaces	Burning	F16. Solid – Other types of solid biomass ; Buckwheat hulls	t/year	0		0
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	Burning	F1. Gas – Natural gas	1,000 Nm³/year	6048,683	11521,84944	
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	GHGs emitted during the process	F2. Substance – Sodium carbonate; Soda ash	t/year	2665,49		1106,17835
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	GHGs emitted during the process	F3. Material – CaCO3; Dolomite	t/year	1704,51	749,9844	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	GHGs emitted during the process	F4. Material – $MgCO_3$; Dolomite	t/year	1068,23	557,61606	
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	Burning	F5. Solid – Coke; Coke	t/year	17,19	54,95510637	
231300	C	230000	EU ETS	300037592	UAB "Kauno stiklas"	Glass melting furnace and tumble dryers	Burning	F6. Liquid – Liquefied petroleum gas; Liquefied petroleum gas	t/year	0		0
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F1. Gas - Natural gas; Steam boiler GM-50, t.š.-106	1,000 Nm^3	0		0
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F2. Liquid – Fuel oil distillati	1,000 Nm^3	0		0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
								on residue; Steam boiler GM-50, t.š.-106				
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F3. Gas - Natural gas; Steam boiler BGM-35M, t.š.-141	1,000 Nm^3	0		0
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F4. Gas - Natural gas; Steam boiler E50-3.9-440GM, t.š.-355	1,000 Nm^3	0		0
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F5. Gas – Natural gas; Coal power plant No. 1, t.š.-385	1,000 Nm^3	3588,428351	7344,560264	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F6. Gas – Natural gas; Coal power plant No. 2, etc. - 386	1,000 Nm^3	62696,8671	128323,8437	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F7. Gas – Natural gas; Ammonia gas unit AM-70	1,000 Nm^3	181998,3717	372502,3543	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F8. Gas – Natural gas; Torch etc.-144	1,000 Nm^3	36,4717933	74,64807922	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F9. Gas - Natural gas; torch etc.-391	1,000 Nm^3	14,34377739	29,35790468	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F10. Gas – Natural gas; Ammonia gas unit AM-80	1,000 Nm^3	415901,6414	851240,2565	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F11. Gas – Natural gas; Torches etc.-356	1,000 Nm^3	83,95028154	171,8239412	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	Burning	F12. Gas - Natural gas; Equipment UKL-7/9	1,000 Nm^3	38973,99229	79769,41633	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	N2O	M1. Nitric acid production plant GP1, t.š.-380	-	-	13411,96622	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and	N2O	M2. Nitric	-	-	34948,18084	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
						nitrogen compounds		acid production plant GP2, t.š.-381				
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	N2O	M3. Nitric acid production facilities UKL-7/9, t.š.-001	-	-	25897,02781	
201500	C	200000	EU ETS	156667399	AB "Achema"	Production of fertilizers and nitrogen compounds	N2O	M4. Nitric acid production facilities UKL-7/9, type-002	-	-	70571,53124	
108100	C	100000	EU ETS	161111219	AB "Nordic Sugar Kėdainiai"	Boiler room, cake dryer	Burning	F1. Gas – Natural gas	1,000 Nm^3	16344, 473	31133,81161	

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
108100	C	100000	EU ETS	161111219	AB "Nordic Sugar Kėdainiai"	Boiler room, cake dryer	Burning	F2. Gaseous – Biogas; Biogas	1,000 Nm^3	829,77		0
108100	C	100000	EU ETS	161111219	AB "Nordic Sugar Kėdainiai"	Boiler room, cake dryer	Burning	F3. Solid – Coke; Coke	t/year	1605	5131,061415	
201510	C	200000	EU ETS	161110455	AB "Lifosa"	Boiler room	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	3850,107	7333,886264	
353000	D	350000	AIVIKS	152840633	UAB "Birštono šiluma"	Boilers 4 MW (e.g. 003)	Burning	Wood fuel	t/year	7197,6		9093,142662
353000	D	350000	AIVIKS	152840633	UAB "Birštono šiluma"	Boiler 7.75 MW (type 001)	Burning	Natural gas	1,000 Nm^3 /year	150,1	288,8509707	
353000	D	350000	AIVIKS	152840633	UAB "Birštono šiluma"	Boiler 2.5 MW (type 002)	Burning	Natural gas	1,000 Nm^3 /year	176,2	339,0775552	
353000	D	350000	AIVIKS	156667812	UAB "Jonavos energetika"	Boiler room 7.1 MW	Burning	Wood fuel	t/year	1226		1548,876418
351100	D	350000	AIVIKS	302452612	UAB "Foksita" kogeneracin	Biofuel cogeneration power plant 3x10 MW	Burning	Wood fuel	t/year	68340,9		86338,99541

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					ė biokuro elektrinė							
353000	D	350000	AIVIKS	302491095	UAB "Lorizon Energy"	Boiler room 10 MW	Burning	Peat fuel	t/year	4725,1		5778,158466
353000	D	350000	AIVIKS	302491095	UAB "Lorizon Energy"	Boiler room 10 MW	Burning	Wood fuel	t/year	4718,1		5960,647493
353000	D	350000	AIVIKS	302250500	UAB "Ekopartneris"	Biofuel boiler house 14 MW	Burning	Wood fuel	t/year	17494,3		22101,55686
353000	D	350000	AIVIKS	302680530	UAB Idex Taika	Boiler room 16 MW	Burning	Wood fuel	t/year	17410,3		21995,43482
353000	D	350000	AIVIKS	301150568	UAB Idex Taikos elektrinė	Idex Peace Power Plant. Steam boiler 20 MW	Burning	Wood fuel	t/year	50189,1		63406,78092
353020	D	350000	AIVIKS	302968949	UAB "Aldec General"	Boiler room 16 MW	Burning	Wood fuel	t/year	23665,6		29898,11562
351300	D	350000	AIVIKS	136025070	UAB "Energijos sistemų servisas" Kauno elektrinė	Chimney No. 1 (1334 MW)	Burning	Natural gas	1,000 Nm^3 /year	206,9	398,1563347	
353010	D	350000	AIVIKS	301846604	UAB "Komunalinių paslaugų centras"	Water heating boiler No. 4 2 MW	Burning	Peat fuel	t/year	988,2		1208,434995

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					Babtų katilinė							
351100	D	350000	AIVIKS	135958526	UAB "Ekoresursai"	Cogenerator (e.g. 004)	Burning	Biogas	1,000 Nm^3 /year	2306		2695,714
351100	D	350000	AIVIKS	135958526	UAB "Ekoresursai"	Cogenerator (e.g. 003)	Burning	Biogas	1,000 Nm^3 /year	2301		2689,869
351100	D	350000	AIVIKS	135958526	UAB "Ekoresursai"	Cogenerator (e.g. 002)	Burning	Biogas	1,000 Nm^3 /year	394,5		461,1705
353010	D	350000	AIVIKS	301846604	UAB "Komunalinių paslaugų centras" Karmėlavos katilinė	Solid fuel water heating boilers No. 3-4 1.2 MW	Burning	Peat fuel	t/year	540,8		661,3252838
353010	D	350000	AIVIKS	301846604	UAB "Komunalinių paslaugų centras" Vandžiogalos katilinė	Vandžiogala boiler house. Solid fuel boiler 0.5 MW	Burning	Peat fuel	t/year	336,4		411,3717187
353010	D	350000	AIVIKS	302881024	UAB "SIGMA SOLAR" Lančiūnavos katilinė	Lančiūnava boiler house 2 MW	Burning	Wood fuel	t/year	618		780,7549968

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
353010	D	350000	AIVIKS	302881024	UAB "SIGMA SOLAR" Lančiūnavos katilinė	Lančiūnava boiler house 2 MW	Burning	Industrial waste	t/year	360		423,344556
353000	D	350000	AIVIKS	170759250	AB "Prienų šilumos tinklai" Prienų miesto katilinė Nr. 2	Boiler room No. 2 7.5 MW	Burning	Wood fuel	t/year	7166,3		9053,599569
353000	D	350000	EU ETS	156737189	AB "Jonavos šilumos tinklai"	Jonava District Boiler House	Burning	F1. Gas – Natural gas	1,000 Nm^3	189,704	388,0109852	
353000	D	350000	EU ETS	156737189	AB "Jonavos šilumos tinklai"	Jonava District Boiler House	Burning	F2. Liquid – Heavy fuel oil; Fuel oil	t/year	0		0
353000	D	350000	EU ETS	172412113	UAB "Raseinių šilumos tinklai"	Raseiniai District Boiler House	Burning	F1. Liquid – Heavy fuel oil; Fuel oil	t/year	0,139	0,433397552	
353000	D	350000	EU ETS	172412113	UAB "Raseinių šilumos tinklai"	Raseiniai District Boiler House	Burning	F2. Liquid – Gas and/or	t/year	3,554	11,10215579	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
								diesel; Diesel				
353000	D	350000	EU ETS	172412113	UAB "Raseinių šilumos tinklai"	Raseiniai District Boiler House	Burning	F3. Hard – Peat; Peat	t/year	0		0
353000	D	350000	EU ETS	172412113	UAB "Raseinių šilumos tinklai"	Raseiniai District Boiler House	Burning	F4. Solid – Wood (non-waste); Biofuel (wood chips)	t/year	11312,895		14254,2477
353000	D	350000	EU ETS	172412113	UAB "Raseinių šilumos tinklai"	Raseiniai District Boiler House	Burning	F5. Solid – Other types of solid biomass; Grain cleaning	t/year	0		0
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Petrašiūnai Power Plant	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	238,297	453,920656	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Petrašiūnai Power Plant	Burning	F2. Liquid – Heavy	t/year	0		0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
								fuel oil; Fuel oil				
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Petrašiūnai Power Plant	Burning	F3. Solid – Wood (non-waste); Solid biofuel	t/year	35141,216		44277,93
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Petrašiūnai Power Plant	Burning	F4. Liquid – Gas and/or diesel; Diesel	t/year	437,713	1367,34888	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Victory boiler room	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	1942,294	3699,783743	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Victory boiler room	Burning	F2. Liquid – Gas and/or diesel; Diesel	t/year	314,685	983,0281079	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Silk boiler room	Burning	F1. Gas – Natural gas;	1,000 Nm^3	967,332	1842,624859	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
								Natural gas				
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Silk boiler room	Burning	F2. Solid – Wood (non-waste); Solid biofuel	t/year	24404,258	30749,36508	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Garliava boiler house	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	115,747	220,4809719	
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Garliava boiler house	Burning	F2. Liquid – Heavy fuel oil; Fuel oil	t/year	0		0
353000	D	350000	EU ETS	235014830	AB "Kauno energija"	Garliava boiler house	Burning	F3. Solid – Wood (non-waste); Solid biofuel	t/year	8542,19		10763,1594
351100	D	350000	EU ETS	110884491	UAB "Kauno Termofikacijos elektrinė"	Kaunas Power Plant	Burning	F1. Gas – Natural gas	1,000 Nm^3	192,684	401,5186371	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
351100	D	350000	EU ETS	110884491	UAB "Kauno Termofikacijos elektrinė"	Kaunas Power Plant	Burning	F2. Liquid – Heavy fuel oil; Fuel oil	t/year	0		0
351100	D	350000	EU ETS	110884491	UAB "Kauno Termofikacijos elektrinė"	Kaunas Power Plant	Burning	F3. Liquid – Diesel fuel; Diesel	t/year	0		0
353000	D	350000	EU ETS	158996646	UAB "Kaišiadorių šiluma"	Kaišiadorys city boiler house	Burning	F1. Gas – Natural gas	1,000 Nm^3	0,222	0,422877273	
353000	D	350000	EU ETS	158996646	UAB "Kaišiadorių šiluma"	Kaišiadorys city boiler house	Burning	F2. Liquid – Heavy fuel oil; Heavy fuel oil	t/year	0		0
353000	D	350000	EU ETS	158996646	UAB "Kaišiadorių šiluma"	Kaišiadorys city boiler house	Burning	F3. Solid – Wood (not waste); Wood	t/year	11820,81		14894,2206
353000	D	350000	EU ETS	147248313	AB "Panevėžio energija"	Panevėžys combined heat and power plant	Burning	F1. Gas – Natural gas	1,000 Nm^3	2897,394	5519,108445	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
353000	D	350000	EU ETS	147248313	AB "Panevėžio energija"	Kedainiai Regional Council	Burning	F1. Gas – Natural gas	1,000 Nm^3	5548,838	10569,7184	
353000	D	350000	EU ETS	147248313	AB "Panevėžio energija"	Kedainiai Regional Council	Burning	F2. Liquid – Gas and/or diesel; Diesel fuel	t/year	7,13		22,27303624
353010	D	350000	EU ETS	302929686	UAB "Idex Biruliškių"	Solid fuel boiler room	Burning	F1. Solid – Other types of solid fuels; Wood chips and peat mixture	t/year	119,6		146,2546301
353010	D	350000	EU ETS	302929686	UAB "Idex Biruliškių"	Solid fuel boiler room	Burning	F2. Solid – Wood (not waste); Wood chips	t/year	58655,64		73906,1064

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
351100	D	350000	EU ETS	303792888	UAB "Kauno kogeneracinė jėgainė"	Cogeneration waste incineration power plant	CO_2	M1. Exhaust gas stack of a cogeneration power plant (co-incineration plant)	-	-	85649,61363	
360000	E	360000	AIVIKS	132751369	UAB "Kauno vandenys" Kauno miesto nuotekų valykla	Water heating boiler No. 1 2.5 MW	Burning	Biogas	1,000 Nm^3 /year	1614,3		1887,1167
360000	E	360000	AIVIKS	132751369	UAB "Kauno vandenys" Kauno miesto nuotekų valykla	Water heating boiler No. 1 2.5 MW	Burning	Natural gas	1,000 Nm^3 /year	26	50,03414549	**0**
381100	E	380000	AIVIKS	132616649	UAB "Kauno švara" nepavojingų pelenų (šlako) laikymo ir	Diesel generator	Burning	Gasoline	t/year	11,6	36,3113002	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					apdorojimo aikštelė							
381200	E	380000	AIVIKS	300092998	VšĮ Kauno regiono atliekų tvarkymo centras Zabieliškio mechaninio atliekų rūšiavimo ir biologiškai skaidžių atliekų kompostavimo įrenginiai	Boiler room	Burning	Gasoline	t/year	0,1	0,31302845	**0**
421100	F	420000	AIVIKS	133729589	AB "Kauno tiltai" Kauno bazė	Kaunas base. Boiler Kalard G 07 (64 kW)	Burning	Natural gas	1,000 Nm^3 /year	22,5	43,29877975	**0**
421100	F	420000	AIVIKS	133729589	AB "Kauno tiltai" Kauno bazė	Kaunas base. Boiler Tre Gi 7N 0.11 MW	Burning	Natural gas	1,000 Nm^3 /year	22,7	43,68365779	**0**
421100	F	420000	AIVIKS	133729589	AB "Kauno tiltai" Kauno bazė	Kaunas base. Mechanical workshop boilers Kalard 325 kW	Burning	Natural gas	1,000 Nm^3 /year	42,5	81,78658397	**0**

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
421100	F	420000	AIVIKS	135640993	UAB "Kauno keliai" Kauno asfaltbetonio gamybos bazė	Asphalt concrete mixer "AMOMATIC" (12.4 MW)	Burning	Natural gas	1,000 Nm^3 /year	1090,1	2097,777769	**0**
466100	G	460000	AIVIKS	133370289	AB "Lytagra"	Boiler room 1.4 MW	Burning	Wood fuel	t/year	284,2	359,0462299	
462100	G	460000	AIVIKS	135793416	UAB "Agrokoncerno grūdai" Kėdainių grūdų priėmimo padalinys	Administration. Gas water heating boiler (24 kW)	Burning	Natural gas	1,000 Nm^3 /year	2,7	5,19585357	
462100	G	460000	AIVIKS	135793416	UAB "Agrokoncerno grūdai" Kėdainių grūdų priėmimo padalinys	First line, drying 4.8 MW	Burning	Natural gas	1,000 Nm^3 /year	39,9	76,78316942	
462100	G	460000	AIVIKS	135793416	UAB "Agrokoncerno grūdai" Kėdainių grūdų priėmimo padalinys	Second line, drying 4.8 MW	Burning	Natural gas	1,000 Nm^3 /year	19,3	37,14073107	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
467500	G	460000	AIVIKS	110548779	UAB "AGROCHEMA" Kėdainių elevatorius	Grain drying. Dryer "Cimbria AMG-30" 4.07 MW	Burning	Natural gas	1,000 Nm^3 /year	4,9	9,429512034	
467500	G	460000	AIVIKS	11054877s elect all table9	UAB "AGROCHEMA" Kėdainių elevatorius	Grain drying. Dryer "Cimbria AEG-15" 4 MW	Burning	Natural gas	1,000 Nm^3 /year	11,4	21,93804841	
467500	G	460000	AIVIKS	110548779	UAB "AGROCHEMA" Kėdainių elevatorius	Grain drying. Dryer "DSP-16". Until 2024-02-12	Burning	Natural gas	1,000 Nm^3 /year	0		0
521000	H	520000	AIVIKS	156511418	AB "Jonavos grūdai"	Biofuel boiler house 0.14 MW	Burning	Wood fuel	t/year	0		0
521000	H	520000	AIVIKS	156511418	AB "Jonavos grūdai"	Grain dryer "AMG-32"	Burning	Natural gas	1,000 Nm^3 /year	16,6	31,9448775	
521000	H	520000	AIVIKS	156511418	AB "Jonavos grūdai"	Grain dryer "RD 2×25" 2.87 MW	Burning	Natural gas	1,000 Nm^3 /year	0		0
521000	H	520000	AIVIKS	156511418	AB "Jonavos grūdai"	Grain dryer "TK6-19-4" 4.6 MW	Burning	Natural gas	1,000 Nm^3 /year	81,8	157,4151193	
521000	H	520000	AIVIKS	156511418	AB "Jonavos grūdai"	Gas boiler room 0.23 MW	Burning	Natural gas	1,000 Nm^3 /year	23,1	44,45341388	
561000	I	560000	AIVIKS	300553267	UAB "Hes-Pro Vilnius"	Water heating boiler 1.1 MW	Burning	Natural gas	1,000 Nm^3 /year	66,6	128,1643881	

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
842300	Oh	840000	AIVIKS	288697120	Lietuvos kalėjimų tarnyba Pravieniškių 1-asis kalėjimas / Pravieniškių 2-asis kalėjimas	Boiler room 1.62 MW	Burning	Wood fuel	t/year	126	159,1830576	
842300	Oh	840000	AIVIKS	288697120	Lietuvos kalėjimų tarnyba Pravieniškių katilinė	Pravieniškės boiler house 17 MW	Burning	Natural gas	1,000 Nm^3 /year	1275,1	2453,789958	
861000	Q	860000	AIVIKS	302583800	Lietuvos sveiktos mokslų universiteto Kauno ligoninė Psichiatrijos klinikos Marių sektoriaus biokuro katilinė	Biofuel boiler house 1.9 MW	Burning	Wood fuel	t/year	642,1		811,201915

Annex II

The main CO_2 emitters in Šiauliai county (*source: Innovation Agency of Lithuania, 2024*)

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F1. Liquid – Shale oil; Shale oil	t/year	1894,178	5660,118298	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F2. Gas – Natural gas; Natural gas	1,000 Nm^3	325,521	620,0695177	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F3. Liquid – Diesel stove fuel; Diesel stove fuel	t/year	272,095	849,9834216	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	GHGs emitted during the process	F5. Material – Cement clinker; Clinker	t/year	1081460	571010,88	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F6. Solid – Petroleum coke; Petroleum coke	t/year	0	0	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for	Burning	F7. Solid – Coal; Coal	t/year	89487	201140,6458	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
						the production of cement clinker						
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F10. Solid – Wood (waste); Non-hazardous industrial waste (sawdust, chips, particle board and plywood; wood; wooden packaging)	t/year	0	0	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F11. Waste – Industrial waste; non-hazardous waste (paper and cardboard sorting waste for recycling; fiber waste; plastic chips and cuttings; plastic (including	t/year	26,288	42,29082	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
								PET) packaging; mixed packaging; ...)				
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F12. Waste – Industrial waste; Hazardous waste (absorbents, filter materials (including oil filters not otherwise specified), wipes, protective clothing)	t/year	0	0	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F13. Waste – Industrial waste; Industrial renewable waste (wood waste containing hazardous substances)	t/year	0	0	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F14. Waste – Industrial waste; Rubber	t/year	0	0	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	GHGs emitted during the process	F16. Material – Extraneous dust; Bypass dust	t/year	10553	4727,744	0
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F15. Waste – Industrial waste; Textiles (shredded textiles from end-of-life tire processing)	t/year	47,3	60,74036311	37,22796449
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F4. Solid – Used tires; Used tires, pellets	t/year	2971,544	4260,506362	1323,381399
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F8. Waste – Industrial waste; Municipal sewage sludge (dewatered)	t/year	7929,843	0	8784,242348

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
235100	C	230000	EU ETS	153009143	AB "Akmenės cementas"	Boiler room, equipment for the production of cement clinker	Burning	F9. Waste – Industrial waste; Combustible waste (fuel derived from waste)	t/year	74649,597	81111,71879	58255,49563
421100	F	420000	AIVIKS	147710353	AB "HISK" Pakruojo asfaltbetonio bazė	Pakruojis asphalt concrete base. Asphalt concrete mixer 9.49 MW	Burning	Liquefied petroleum gas	t/year	255,2	779,3423669	0
812900	N	810000	AIVIKS	232112130	AB "Kelių priežiūra" Kuršėnų asfalto gamybos bazė	Kuršėnai asphalt concrete base. Asphalt concrete mixer (t.š.005)	Burning	Gasoline	t/year	101,4	317,4108483	0
812900	N	810000	AIVIKS	232112130	AB "Kelių priežiūra" Kuršėnų asfalto gamybos bazė	Kuršėnai asphalt concrete base. Asphalt concrete mixer (t.š.005)	Burning	Natural gas	1,000 Nm^3 /year	399,7	769,1787674	0
081100	B	080000	AIVIKS	167901031	AB "Klovainių skalda"	Boiler room 0.095 MW	Burning	Coal	t/year	4	7,952992	0
081100	B	080000	AIVIKS	167901031	AB "Klovainių skalda"	Boiler room 0.095 MW	Burning	Wood fuel	t/year	6	0	7,5801456
492000	H	490000	AIVIKS	304977594	AB "LTG Cargo" Radviliškio padalinys	Boiler room 6 MW	Burning	Natural gas	1,000 Nm^3 /year	259,3	498,9943817	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
081100	B	080000	AIVIKS	153085326	AB "Naujasis kalcitas" Menčių miltelių cechas	Blade workshop. Drum dryer No. 2	Burning	Natural gas	1,000 Nm^3 /year	1702,6	3276,466773	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F1. Gas – Natural gas	1,000 Nm^3	6228,851	11865,04292	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F2. Liquid – Heavy fuel oil; fuel oil	t/year	218	679,717024	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F4. Hard – Peat; peat	t/year	0	0	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F5. Liquid – Gas and/or diesel; diesel	t/year	0,252	0,787209696	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F6. Solid – Other types of solid biomass; straw	t/year	0	0	0
353000	D	350000	EU ETS	245358580	AB "Šiaulių energija"	Siauliai Southern Boiler House	Burning	F3. Solid – Wood (waste); wood	t/year	153692,01	0	197492,8804
682000	L	680000	AIVIKS	145770565	AB Neaustinių medžiagų fabrikas Purienų katilinė	Purienai boiler house 1.1 MW	Burning	Wood fuel	t/year	347,3	0	438,7640945

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
161000	C	160000	AIVIKS	157634651	Edmundo Jakučio IĮ	Boiler room 0.72 MW	Burning	Wood fuel	t/year	7,6	0	9,60151776
014700	A	010000	AIVIKS	303148039	KB "Alsių paukštynas"	Solid fuel boiler 0.8 MW	Burning	Wood fuel	t/year	666,7	0	842,2805119
014700	A	010000	AIVIKS	303148039	KB "Alsių paukštynas"	Solid fuel boiler 0.8 MW	Burning	Wood fuel	t/year	666,7	0	842,2805119
014700	A	010000	AIVIKS	303148039	KB "Alsių paukštynas"	Gas boilers 0.99 MW	Burning	Liquefied petroleum gas	t/year	87,9	268,4333623	0
011100	A	010000	AIVIKS	157573910	Skaistgirio žemės ūkio bendrovės Žagarės pieninė	Žagarės dairy. Solid fuel boiler 2.18 MW	Burning	Wood fuel	t/year	24	0	30,3205824
011100	A	010000	AIVIKS	157573910	Skaistgirio žemės ūkio bendrovės Žagarės pieninė	Žagarės dairy. Solid fuel boiler 2.18 MW	Burning	Agricultural waste	t/year	260,3	0	337,4854575
421100	F	420000	AIVIKS	145590161	Stasio Pakarklio įmonės asfaltbetonio gamybos bazė	Asphalt concrete mixer TBA 2000UC	Burning	Liquefied petroleum gas	t/year	605,3	1848,495042	0
162400	C	160000	AIVIKS	175711843	UAB "BAGETA"	Sawdust dryer	Burning	Wood fuel	t/year	1437,1	0	1815,571207
162400	C	160000	AIVIKS	175711843	UAB "BAGETA"	Boiler room 1.9 MW	Burning	Wood fuel	t/year	1660,4	0	2097,678959
162400	C	160000	AIVIKS	175711843	UAB "BAGETA"	Boiler room 3.7 MW	Burning	Wood fuel	t/year	1877	0	2371,322215

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
353000	D	350000	AIVIKS	171663689	UAB "Baisogalos bioenergija" Baisogalos katilinė	Baisogala boiler house 4 MW (t.š.004)	Burning	Wood fuel	t/year	3257,6	0	4115,513718
353000	D	350000	AIVIKS	171663689	UAB "Baisogalos bioenergija" Pakiršinio katilinė	Substation boiler house 3 MW	Burning	Wood fuel	t/year	1650,6	0	2085,298055
162300	C	160000	AIVIKS	145130572	UAB "Beconis"	Boiler room 0.95 MW	Burning	Wood fuel	t/year	239	0	301,9424664
310900	C	310000	AIVIKS	111748843	UAB "Benglita"	Boiler room 0.5 MW	Burning	Wood fuel	t/year	26,8	0	33,85798368
352100	D	350000	AIVIKS	304414973	UAB "Biometana"	Emergency torch	Burning	Biogas	1,000 Nm^3 /year	15,6	0	18,2364
352100	D	350000	AIVIKS	304414973	UAB "Biometana"	Cogeneration unit 0.86 MW	Burning	Biogas	1,000 Nm^3 /year	1751,4	0	2047,3866
162900	C	160000	AIVIKS	300014234	UAB "DUJALGASA"	Boiler room 2.4 MW	Burning	Wood fuel	t/year	325,6	0	411,3492346
162900	C	160000	AIVIKS	302689045	UAB "Ekolignum"	Boiler room 0.95 MW	Burning	Wood fuel	t/year	840	0	1061,220384
236500	C	230000	AIVIKS	110579290	UAB "Eternit Baltic"	Painting chamber No. 2 0.61 MW	Burning	Natural gas	1,000 Nm^3 /year	23,9	45,99292604	0
236500	C	230000	AIVIKS	110579290	UAB "Eternit Baltic"	Painting chamber No. 1 1.83 MW	Burning	Natural gas	1,000 Nm^3 /year	119,6	230,1570692	0
236500	C	230000	AIVIKS	110579290	UAB "Eternit Baltic"	Heating chamber	Burning	Natural gas	1,000 Nm^3 /year	91,7	176,4665824	0
236500	C	230000	AIVIKS	110579290	UAB "Eternit Baltic"	Drying chamber No. 2	Burning	Natural gas	1,000 Nm^3 /year	20,6	39,64243835	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
162900	C	160000	AIVIKS	145760457	UAB "GAIRELITA"	Dryer 8 MW	Burning	Wood fuel	t/year	26327,6	0	33261,17355
162900	C	160000	AIVIKS	300598294	UAB "GRANULITA" Radviliškio padalinys	Sawdust drying line No. 2 3 MW	Burning	Gasoline	t/year	23,5	73,56168575	0
162900	C	160000	AIVIKS	300598294	UAB "GRANULITA" Radviliškio padalinys	Sawdust drying line No. 2 3 MW	Burning	Wood fuel	t/year	3300	0	4169,08008
162900	C	160000	AIVIKS	300598294	UAB "GRANULITA" Radviliškio padalinys	Boiler room 0.022 MW	Burning	Wood fuel	t/year	6,5	0	8,2118244
162900	C	160000	AIVIKS	300598294	UAB "GRANULITA" Radviliškio padalinys	Sawdust drying line No. 1 3 MW	Burning	Wood fuel	t/year	3187	0	4026,320671
162900	C	160000	AIVIKS	145787657	UAB "Granulta"	Sawdust dryer 3 MW	Burning	Wood fuel	t/year	2982	0	3767,332363
353000	D	350000	EU ETS	153251171	UAB "Gren Akmenė"	Žalgiris boiler house	Burning	F1. Gas – Natural gas	1,000 Nm^3	543,8	1035,749758	0
353000	D	350000	EU ETS	153251171	UAB "Gren Akmenė"	Žalgiris boiler house	Burning	F2. Liquid – Gas and/or diesel; diesel fuel	t/year	0	0	0
353000	D	350000	EU ETS	153251171	UAB "Gren Akmenė"	Žalgiris boiler house	Burning	F4. Liquid – Shale oil; shale oil	t/year	0	0	0
353000	D	350000	EU ETS	153251171	UAB "Gren Akmenė"	Žalgiris boiler house	Burning	F3. Solid – Wood (not waste); wood	t/year	9960,14	0	12798,69225

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
351100	D	350000	AIVIKS	302850299	UAB "Jenergija" biodujų jėgainė	Cogeneration unit (t.š.003) 0.6 MW	Burning	Biogas	1,000 Nm^3 /year	1081	0	1263,689
351100	D	350000	AIVIKS	302850299	UAB "Jenergija" biodujų jėgainė	Cogeneration unit (t.š.001) 0.45 MW	Burning	Biogas	1,000 Nm^3 /year	1003	0	1172,507
014700	A	010000	AIVIKS	121721595	UAB "Jondara" Micaičių paukštynas	Poultry houses. Heaters	Burning	Natural gas	1,000 Nm^3 /year	223,9	430,8709683	0
109100	C	100000	AIVIKS	157602461	UAB "JONIŠKIO GRŪDAI"	Boiler CERTUS JUNION 300 0.196 MW	Burning	Natural gas	1,000 Nm^3 /year	114,1	219,5729231	0
109100	C	100000	AIVIKS	157602461	UAB "JONIŠKIO GRŪDAI"	Boiler room 4,293 MW	Burning	Natural gas	1,000 Nm^3 /year	277,7	534,4031616	0
105100	C	100000	AIVIKS	305658215	UAB "Kelmės pienas"	Boiler room 4.0 MW	Burning	Natural gas	1,000 Nm^3 /year	564,5	1086,318274	0
0	X	-1	AIVIKS	110852497	UAB "LITESKO" filialas "Kelmės šiluma" Mackevičiaus katilinė	Mackevičius boiler house 18.11 MW	Burning	Gasoline	t/year	37,5	117,3856688	0
0	X	-1	AIVIKS	110852497	UAB "LITESKO" filialas "Kelmės šiluma"	Mackevičius boiler house 18.11 MW	Burning	Wood fuel	t/year	6481,6	0	8188,57862

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					Mackevičiaus katilinė							
351100	D	350000	AIVIKS	302850267	UAB "Menergija"	Cogeneration unit 1.06 MW	Burning	Biogas	1,000 Nm^3 /year	1596	0	1865,724
682000	L	680000	AIVIKS	145447918	UAB "Miško vėjas"	Boiler room 0.7 MW	Burning	Wood fuel	t/year	57,7	0	72,89573352
310900	C	310000	AIVIKS	147863452	UAB "Multimeda" Karčiamos filialo katilinė	Kárčiama branch boiler house 0.95 MW	Burning	Wood fuel	t/year	144	0	181,9234944
310900	C	310000	AIVIKS	147863452	UAB "Multimeda" medienos gaminių gamybos padalinys	Boiler room No. 2 1.45 MW	Burning	Wood fuel	t/year	675,9	0	853,9034018
310900	C	310000	AIVIKS	147863452	UAB "Multimeda" medienos gaminių gamybos padalinys	Boiler room No. 1 2.95 MW	Burning	Wood fuel	t/year	988,2	0	1248,44998
353000	D	350000	AIVIKS	167909640	UAB "Pakruojo šiluma" Linkuvos katilinė	Linkuva boiler house. Biofuel boiler 0.95 MW	Burning	Wood fuel	t/year	689,3	0	870,8323937
353000	D	350000	AIVIKS	167909640	UAB "Pakruojo šiluma" Linkuvos socialinės	Linkuva social care home boiler room 0.8 MW	Burning	Wood fuel	t/year	439,5	0	555,2456652

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					globos namų katilinė							
353000	D	350000	AIVIKS	167909640	UAB "Pakruojo šiluma" Pakruojo rajoninė katilinė	Pakruojos RK. Biofuel boiler CSA 2000 2 MW	Burning	Wood fuel	t/year	821,2	0	1037,469261
353000	D	350000	AIVIKS	167909640	UAB "Pakruojo šiluma" Pakruojo rajoninė katilinė	Pakruojos RK. Biofuel boiler KVV.05.08 4 MW	Burning	Wood fuel	t/year	4490,5	0	5673,107303
353000	D	350000	AIVIKS	167909640	UAB "Pakruojo šiluma" Pakruojo rajoninė katilinė	Loaded by RK. Gas boiler 5.2 MW	Burning	Natural gas	1,000 Nm^3 /year	0,1	0,192439021	0
353000	D	350000	EU ETS	171444859	UAB "Radviliškio šiluma"	Radviliškis boiler house	Burning	F1. Gas – Natural gas; natural gas	1,000 Nm^3	0,941	1,792466281	0
353000	D	350000	EU ETS	171444859	UAB "Radviliškio šiluma"	Radviliškis boiler house	Burning	F3. Solid – Other types of solid biomass; cereal crop residues	t/year	0	0	0
353000	D	350000	EU ETS	171444859	UAB "Radviliškio šiluma"	Radviliškis boiler house	Burning	F2. Solid – Wood (not	t/year	17552,11	0	22554,30689

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
								waste); biomass				
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Akmenės r. katilinė	Biofuel boiler 12 MW	Burning	Wood fuel	t/year	15954,9	0	20156,74417
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Akmenės r. katilinė	Glycol heater 2x10 MW	Burning	Wood fuel	t/year	124,7	0	157,5406927
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Akmenės r. katilinė	Biofuel boiler house 26-36 MW	Burning	Wood fuel	t/year	25523,5	0	32245,3077
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Akmenės r. katilinė	Glycol heater 2x10 MW	Burning	Natural gas	1,000 Nm^3 /year	46,3	89,09926677	0
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Akmenės r. katilinė	Biofuel boiler house 26-36 MW	Burning	Natural gas	1,000 Nm^3 /year	30	57,73170633	0
108200	C	100000	AIVIKS	144696375	UAB "Rūta"	Boiler room 1.19 MW	Burning	Natural gas	1,000 Nm^3 /year	89,7	172,6178019	0
351100	D	350000	AIVIKS	302850317	UAB "Senergita" biodujų jėgainė	Cogeneration unit 1,058 MW	Burning	Biogas	1,000 Nm^3 /year	1841	0	2152,129
421100	F	420000	AIVIKS	244693070	UAB "Šiaulių plentas" Ginkūnų asfaltbetonio bazė	Asphalt concrete mixer Concept TBA 200U No. 2 18.9 MW	Burning	Liquefied petroleum gas	t/year	347	1059,685742	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
421100	F	420000	AIVIKS	244693070	UAB "Šiaulių plentas" Ginkūnų asfaltbetonio bazė	Asphalt concrete mixer Concept TBA 200U No. 2 18.9 MW	Burning	Natural gas	1,000 Nm³ /year	29,2	56,19219416	0
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Municipal Administration. Candle	Burning	Biogas	1,000 Nm³ /year	0,1	0	0,1169
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Generator 0.395 MW	Burning	Biogas	1,000 Nm³ /year	933,9	0	1091,7291
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Generator 0.395 MW	Burning	Biogas	1,000 Nm³ /year	734,8	0	858,9812
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Boiler Bosch UNIMATUL-L 0.9 MW (t.š.002)	Burning	Biogas	1,000 Nm³ /year	0	0	0
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Boiler Bosch SB 0.9 MW (t.š.001)	Burning	Biogas	1,000 Nm³ /year	0	0	0
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Generator 0.395 MW	Burning	Natural gas	1,000 Nm³ /year	0	0	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Generator 0.395 MW	Burning	Natural gas	1,000 Nm³ /year	0	0	0
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Boiler Bosch UNIMATUL-L 0.9 MW (t.š.002)	Burning	Natural gas	1,000 Nm³ /year	355,8	684,6980371	0
360000	E	360000	AIVIKS	144133366	UAB "Šiaulių vandenys" Šiaulių miesto NVĮ	Šiauliai City Waterworks. Boiler Bosch SB 0.9 MW (t.š.001)	Burning	Natural gas	1,000 Nm³ /year	29,2	56,19219416	0
#N/A	#N/A	#N/A	AIVIKS	300031842	UAB "Toksika" Šiaulių filialas pavojingų atliekų deginimo įrenginys	UAB "Toksika" Šiauliai branch Hazardous waste incineration plant	Burning	Furnace fuel	t/year	19,1	59,78843395	0
467100	G	460000	AIVIKS	166796392	UAB "Tomega"	Boiler room 0.8 MW	Burning	Fuel oil	t/year	3,8	11,9616229	0
162400	C	160000	AIVIKS	303369112	UAB "Vakarų beržas" Radviliškio filialas	Boiler room. Boilers Kalvis and Antara 2.95 MW	Burning	Wood fuel	t/year	3744,6	0	4730,768869
162400	C	160000	AIVIKS	303369112	UAB "Vakarų beržas" Radviliškio filialas	Boiler room. Boiler K-950M-1 0.99 MW	Burning	Wood fuel	t/year	1696,6	0	2143,412504

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
351100	D	350000	AIVIKS	302850089	UAB "Venergija" biodujų jėgainė	Cogeneration unit 0.637 MW (t.š.004)	Burning	Biogas	1,000 Nm^3 /year	1413	0	1651,797
310100	C	310000	AIVIKS	302249074	UAB "VENTA LT"	Boiler room 6 MW	Burning	Wood fuel	t/year	548,2	0	692,5726363
161000	C	160000	AIVIKS	305621786	UAB "VMG Lignum construction"	Diesel electric generator 400 kW	Burning	Gasoline	t/year	0	0	0
161000	C	160000	AIVIKS	305621786	UAB "VMG Lignum construction"	Diesel electric generator 40 kW	Burning	Gasoline	t/year	0	0	0
0	X	-1	EU ETS	306383882	UAB "VMG Wood Solutions"	Heat generation equipment and dryer	Burning	F1. Gas – Natural gas	1,000 Nm^3	433,219	825,2183312	0
0	X	-1	EU ETS	306383882	UAB "VMG Wood Solutions"	Heat generation equipment and dryer	Burning	F2. Solid – Wood (non-waste); Solid biomass (production by-product)	t/year	85396,02	0	135002,9096
467300	G	460000	AIVIKS	301144711	UAB „Šiaulių vyturys" biokuro katilinė	Boiler room 1.5 MW	Burning	Wood fuel	t/year	1468,6	0	1855,366971
141300	C	140000	AIVIKS	304091826	UAB „Žeimelio trikotažas"	Boiler room 1 MW	Burning	Wood fuel	t/year	54	0	68,2213104
353000	D	350000	AIVIKS	157687636	UAB Gren Joniškis	Biofuel boiler house 4 MW	Burning	Wood fuel	t/year	5008,4	0	6327,400204

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					biokuro katilinė							
353000	D	350000	AIVIKS	157687636	UAB Gren Joniškis Centrinė katilinė	Central boiler room. Solid fuel boiler 2 MW (t.š.002)	Burning	Wood fuel	t/year	1214,6	0	1534,474141
353000	D	350000	AIVIKS	157687636	UAB Gren Joniškis Žagarės katilinė	Žagarė boiler house 2.58 MW	Burning	Wood fuel	t/year	512,9	0	647,976113
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Joniškio padalinys 14	Joniškis branch. Diesel heaters	Burning	Gasoline	t/year	12,1	37,87644245	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Joniškio padalinys 14	Joniškis division. Solid fuel boiler 0.4 MW	Burning	Agricultural waste	t/year	2	0	2,59305
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Mūšos padalinys 03	Mūša Division. Diesel heaters	Burning	Gasoline	t/year	1,1	3,44331295	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Mūšos padalinys 03	Mūša division. Boiler room 0.34 MW	Burning	Agricultural waste	t/year	55	0	71,308875
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Sajas padalinys 04	Sajas division. Diesel heaters	Burning	Gasoline	t/year	4,6	14,3993087	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG	Sajas division. Boiler room 0.25 MW	Burning	Agricultural waste	t/year	141	0	182,810025

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					Sajas padalinys 04							
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Skabeikių padalinys 07	Barns. Liquid fuel air heaters	Burning	Gasoline	t/year	6,8	21,2859346	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Skabeikių padalinys 07	VŠK FAUST E21-2 0.25 MW	Burning	Agricultural waste	t/year	5	0	6,482625
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Šeduvos padalinys	Barns. Gas heat generators 0.033 MW	Burning	Liquefied petroleum gas	t/year	14,6	44,58620124	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Šeduvos padalinys	Boiler room. 0.1 MW boilers	Burning	Liquefied petroleum gas	t/year	4,9	14,96386206	0
014600	A	010000	AIVIKS	111657920	UAB IDAVANG Šeduvos padalinys	Domestic gas heater ERA 33 0.1 MW	Burning	Liquefied petroleum gas	t/year	4,9	14,96386206	0
683200	L	680000	AIVIKS	157521319	UAB JONIŠKIO BUTŲ ŪKIS Jurdaičių katilinė	Jurdaičiai boiler house. Boiler HY4-650 0.65 MW	Burning	Wood fuel	t/year	754,4	0	953,0769734
683200	L	680000	AIVIKS	157521319	UAB JONIŠKIO BUTŲ ŪKIS Jurdaičių katilinė	Jurdaičiai boiler house. Boilers VŠK-31, VITOPLEX-100 3.15 MW	Burning	Shale oil	t/year	2,3	6,8727818	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
683200	L	680000	AIVIKS	157521319	UAB JONIŠKIO BUTŲ ŪKIS katilinė Žemaičių g.	Boiler CATFIRE 0.5 MW	Burning	Wood fuel	t/year	432,1	0	545,896819
381100	E	380000	AIVIKS	162732556	UAB Kelmės vietinis ūkis Tytuvėnų katilinė	Boiler room 1.4 MW	Burning	Other solid biomass	t/year	315,5	0	#N/A
381100	E	380000	AIVIKS	162732556	UAB Kelmės vietinis ūkis Tytuvėnų katilinė	Boiler room 1.4 MW	Burning	Wood fuel	t/year	448,7	0	566,8685551
221900	C	220000	AIVIKS	305541500	UAB Metso Lithuania	Boiler room 1,227 MW	Burning	Natural gas	1,000 Nm^3 /year	391	752,4365725	0
282500	C	280000	AIVIKS	244114580	UAB SALDA	Biofuel boiler house 0.82 MW	Burning	Wood fuel	t/year	244	0	308,2592544
101300	C	100000	AIVIKS	157547221	UAB Scandi Standard - Baltics paukščių skerdykla	Boiler room 0.329 MW (t.š.003)	Burning	Liquefied petroleum gas	t/year	29,6	90,39394224	0
101300	C	100000	AIVIKS	157547221	UAB Scandi Standard - Baltics paukščių skerdykla	Boiler room 0.321 MW (t.š.002)	Burning	Liquefied petroleum gas	t/year	29,6	90,39394224	0
101300	C	100000	AIVIKS	157547221	UAB Scandi Standard - Baltics paukščių skerdykla	Boiler room 0.313 MW (t.š.001)	Burning	Liquefied petroleum gas	t/year	29,6	90,39394224	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
#N/A	#N/A	#N/A	AIVIKS	AK	Ūkininkės Stanislavos Krivickienės valstiečių ūkis	Boiler room 0.075 MW	Burning	Wood fuel	t/year	8,8	0	11,11754688
#N/A	#N/A	#N/A	AIVIKS	AK	Ūkininko Manto Jasiukaičio ūkis	Boiler room 1.9 MW	Burning	Wood fuel	t/year	990	0	1250,724024
853200	P	850000	AIVIKS	111964759	VšĮ "Kelmės profesinio rengimo centras" Tytuvėnų skyrius	Boiler room 1.27 MW	Burning	Other solid biomass	t/year	167,7	0	#N/A
853200	P	850000	AIVIKS	111964759	VšĮ "Kelmės profesinio rengimo centras" Tytuvėnų skyrius	Boiler room 1.27 MW	Burning	Wood fuel	t/year	420,1	0	530,7365278
382100	E	380000	AIVIKS	145787276	VšĮ ŠIAULIŲ REGIONO ATLIEKŲ TVARKYMO CENTRAS Šiaulių regiono nepavojingų atliekų sąvartynas	Boiler room 0.025 MW	Burning	Liquefied petroleum gas	t/year	1,6	4,88615904	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
014710	A	010000	AIVIKS	175712411	ŽŪB "Ginkūnų paukštynas"	Grain dryer	Burning	Gasoline	t/year	0	0	0
014710	A	010000	AIVIKS	175712411	ŽŪB "Ginkūnų paukštynas"	Diesel air heaters	Burning	Gasoline	t/year	17,5	54,77997875	0
015000	A	010000	AIVIKS	171286494	ŽŪB "Gražionių bekonas" Gražionių padalinys	Domestic boiler room 0.0258 MW	Burning	Natural gas	1,000 Nm³ /year	0,8	1,539512169	0
015000	A	010000	AIVIKS	171286494	ŽŪB "Gražionių bekonas" Gražionių padalinys	Administrative building boiler room 0.0106 MW	Burning	Natural gas	1,000 Nm³ /year	6,3	12,12365833	0
015000	A	010000	AIVIKS	171286494	ŽŪB "Gražionių bekonas" Gražionių padalinys	Grain dryer 0.6 MW	Burning	Natural gas	1,000 Nm³ /year	6,2	11,93121931	0
015000	A	010000	AIVIKS	171286494	ŽŪB "Gražionių bekonas" Gražionių padalinys	Piglet barn. Boiler room 0.17 MW	Burning	Natural gas	1,000 Nm³ /year	44	84,67316929	0
015000	A	010000	AIVIKS	171286494	ŽŪB "Gražionių bekonas" Jadvimpolio padalinys	Boiler room 0.32 MW	Burning	Coal	t/year	15	29,82372	0

Annex III

The main CO2 emitters in Telšiai county (source: Innovation Agency of Lithuania, 2024)

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
370000	E	370000	AIVIKS	167392890	UAB "Ekovalis"	Boiler room 1.4 MW	Burning	Fuel oil	t/year	40	125,91182	0
370000	E	370000	AIVIKS	167392890	UAB "Ekovalis"	Boiler room 1.4 MW	Burning	Wood fuel	t/year	13		16,4236488
310900	C	310000	AIVIKS	166635955	UAB "Lyra group" Mažeikių padalinys	Boiler room 2.1 MW	Burning	Wood fuel	t/year	258,6		326,7042754
310900	C	310000	AIVIKS	167206670	UAB "Taumona" medienos paruošimo įmonė	Boiler room 0.6 MW	Burning	Wood fuel	t/year	67,4		85,15030224
105100	C	100000	AIVIKS	167227312	AB "PIENO ŽVAIGŽDĖS" filialas Mažeikių pieninė	Boiler room 7.8 MW	Burning	Natural gas	1,000 Nm^3 /year	1069,7	2058,520209	0
310900	C	310000	AIVIKS	167206670	UAB "Taumona"	Boiler room 0.9 MW	Burning	Wood fuel	t/year	110		138,969336
022000	A	020000	AIVIKS	166905831	UAB "Datera"	Boiler room 0.72 MW	Burning	Wood fuel	t/year	300		379,00728
162900	C	160000	AIVIKS	302551763	UAB "Bio wood" Krucių	Krucių division. Sawdust	Burning	Wood fuel	t/year	3571,2		4511,702661

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Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					biokuro granulių gamybos įmonė	drying drum (t.š.002)						
162900	C	160000	AIVIKS	302551763	UAB "Bio wood" Krucių biokuro granulių gamybos įmonė	Krucių division. Sawdust drying drum (t.š.001)	Burning	Wood fuel	t/year	3571,2	0	4511,702661
205900	C	200000	AIVIKS	304137622	UAB "Rapsoila"	Rapeseed dryer 2.8 MW	Burning	Liquefied petroleum gas	t/year	243	742,0854042	0
205900	C	200000	AIVIKS	304137622	UAB "Rapsoila"	Water heating boilers "Dakon" 0.18 MW	Burning	Liquefied petroleum gas	t/year	27	82,4539338	0
205900	C	200000	AIVIKS	304137622	UAB "Rapsoila"	Steam boiler "HDK-3000" 1.95 MW	Burning	Liquefied petroleum gas	t/year	879	2684,333623	0
0	X	-1	AIVIKS	302803666	UAB "VEISTAS" Telšių regiono komunalinių atliekų mechaninio ir biologinio	Boiler room 0.37 MW	Burning	Biogas	1,000 Nm^3 /year	100	0	116,9

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Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					apdorojimo įrenginiai							
0	X	-1	AIVIKS	302803666	UAB "VEISTAS" Telšių regiono komunalinių atliekų mechaninio ir biologinio apdorojimo įrenginiai	Cogenerator 0.4 MW	Burning	Biogas	1,000 Nm^3 /year	200	0	233,8
382100	E	380000	AIVIKS	171780190	UAB "Telšių regiono atliekų tvarkymo centras" Telšių regiono nepavojingų atliekų sąvartynas	Landfill biogas incinerator	Burning	Biogas	1,000 Nm^3 /year	40	0	46,76
382100	E	380000	AIVIKS	171780190	UAB "Telšių regiono atliekų tvarkymo centras" Telšių regiono mišrių	Boiler room 0.37 MW	Burning	Biogas	1,000 Nm^3 /year	105,5	0	123,3295

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					komunalinių atliekų mechaninio biologinio apdorojimo įrenginys							
382100	E	380000	AIVIKS	171780190	UAB "Telšių regiono atliekų tvarkymo centras" Telšių regiono mišrių komunalinių atliekų mechaninio biologinio apdorojimo įrenginys	Cogeneration power plant 0.4 MW	Burning	Biogas	1,000 Nm^3 /year	208,6	0	243,8534
162900	C	160000	AIVIKS	302551763	UAB "Bio wood" Plungės padalinys	Plungė division. Sawdust drying drum (t.š.001)	Burning	Wood fuel	t/year	4705,8	0	5945,108194
310200	C	310000	AIVIKS	170027962	UAB "Augriva"	Boiler room 0.8 MW	Burning	Wood fuel	t/year	13	0	16,4236488
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Kaušėnų paukštynas	Diesel generator (t.š.112)	Burning	Gasoline	t/year	0,4	1,2521138	0

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Kaušėnų paukštynas	Diesel generator (t.š.111)	Burning	Gasoline	t/year	0,4	1,2521138	0
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Kaušėnų paukštynas	Egg sorting workshop boiler room 2x45 kW	Burning	Natural gas	1,000 Nm^3 /year	4,2	8,082438886	0
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Kaušėnų paukštynas	Egg sorting workshop boiler room 2x45 kW	Burning	Natural gas	1,000 Nm^3 /year	4,2	8,082438886	0
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Kaušėnų paukštynas	Boiler room. Boiler "Junkers", 20 kW	Burning	Natural gas	1,000 Nm^3 /year	6,9	13,27829246	0
#N/A	#N/A	#N/A	AIVIKS	AK	Ūkininko Tomo Skieraus ūkis	Boiler room 0.75 MW	Burning	Wood fuel	t/year	0	0	0
310900	C	310000	AIVIKS	166635955	UAB "Lyra group" Plungės padalinys	Boiler room 0.5 MW	Burning	Wood fuel	t/year	58,5	0	73,9064196
102000	C	100000	AIVIKS	169985213	UAB "Plungės kooperatinė prekyba"	Biofuel steam boiler "JARFORSEN" 10 MW	Burning	Wood fuel	t/year	25296,7	0	31958,7782
102000	C	100000	AIVIKS	169985213	UAB "Plungės	Steam boiler "VIESSMAN	Burning	Natural gas	1,000 Nm^3 /year	255,8	492,259016	0

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					kooperatinė prekyba"	VITOMAX 20 HS" 9.76 MW						
102000	C	100000	AIVIKS	169985213	UAB "Plungės kooperatinė prekyba"	Steam boiler "COCHRAN" 3.13 MW	Burning	Natural gas	1,000 Nm^3 /year	28,5	54,84512102	0
102000	C	100000	AIVIKS	169985213	UAB "Plungės kooperatinė prekyba"	Steam boiler "KUIPER" 2.1 MW	Burning	Natural gas	1,000 Nm^3 /year	0,3	0,577317063	0
353000	D	350000	AIVIKS	171695726	UAB "Plungės bioenergija"	Boiler room 8 MW	Burning	Wood fuel	t/year	8544,2	0	10794,38001
161000	C	160000	AIVIKS	169814810	UAB "Milašaičių lentpjūvė"	Boiler room 0.72 MW	Burning	Wood fuel	t/year	937	0	1183,766071
353000	D	350000	AIVIKS	171668992	UAB "Rietavo komunalinis ūkis" Katilinė Nr. 1	Boiler room No. 1 4 MW (+3 MW reserve)	Burning	Wood fuel	t/year	3635,1	0	4592,431212
171200	C	170000	AIVIKS	303795375	UAB "Rietuva" Rietavo gamykla	Rietavas boiler house 2 MW	Burning	Wood fuel	t/year	1959,3	0	2475,296546
222100	C	220000	AIVIKS	132039891	UAB "Kauno šilas" Polistireno putplasčio	Steam boiler 1.476 MW	Burning	Liquefied petroleum gas	t/year	298,7	912,1848158	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					gamybos cechas							
104100	C	100000	AIVIKS	169704164	UAB "Rietavo veterinarinė sanitarija"	Boiler room 5.2-5.91 MW	Burning	Gasoline	t/year	0,8	2,5042276	0
104100	C	100000	AIVIKS	169704164	UAB "Rietavo veterinarinė sanitarija"	Boiler room 5.2-5.91 MW	Burning	Other solid fossil fuels	t/year	7002	#N/A	0
104100	C	100000	AIVIKS	169704164	UAB "Rietavo veterinarinė sanitarija"	Thermal oxidizer (t. š. 046) 10.5 MW	Burning	Natural gas	1,000 Nm^3 /year	147,9	284,6173122	0
104100	C	100000	AIVIKS	169704164	UAB "Rietavo veterinarinė sanitarija"	Thermal oxidizer (t. š. 045) 10.5 MW	Burning	Natural gas	1,000 Nm^3 /year	4885,1	9400,83862	0
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Reproduction workshop boiler room 0.2 MW	Burning	Other solid biomass	t/year	40,3	0	#N/A
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Administrative premises boiler room 0.05 MW	Burning	Other solid biomass	t/year	12,1	0	#N/A

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Weaning piglet boiler room 0.04 MW	Burning	Liquefied petroleum gas	t/year	7,8	23,82002532	0
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Weaning piglet boiler room 0.04 MW	Burning	Liquefied petroleum gas	t/year	7,8	23,82002532	0
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Weaning piglet boiler room 0.04 MW	Burning	Liquefied petroleum gas	t/year	7,8	23,82002532	0
015000	A	010000	AIVIKS	180255117	UAB "Eigirdžių agrofirma" kiaulių auginimo kompleksas	Weaning piglet boiler room 0.04 MW	Burning	Liquefied petroleum gas	t/year	7,8	23,82002532	0
239940	C	230000	AIVIKS	180878527	UAB "Vigantiškių statyba"	Asphalt concrete mixer 11.85 MW	Burning	Liquefied petroleum gas	t/year	589	1798,717297	0
162900	C	160000	AIVIKS	302551763	UAB "Bio wood"	Telšiai division. Second	Burning	Wood fuel	t/year	3395,7	0	4289,983402

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Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
					Telšių padalinys	pellet production line (t.š.003)						
162900	C	160000	AIVIKS	302551763	UAB "Bio wood" Telšių padalinys	Telšiai division. First pellet production line (t.š.001)	Burning	Wood fuel	t/year	3395,7	0	4289,983402
161000	C	160000	AIVIKS	180331718	UAB "Kietasis biokuras"	Biofuel plant. Sawdust dryer 3 MW	Burning	Wood fuel	t/year	5556	0	7019,214826
412000	F	410000	AIVIKS	145407247	UAB "LIMEGA" Vigantiškių asfaltbetonio bazė	Asphalt concrete mixer Concept "TBA 3000 UC" 18.975 MW	Burning	Liquefied petroleum gas	t/year	212	647,4160728	0
353000	D	350000	AIVIKS	180884195	UAB "BIO zona" biokuro katilinė Dariaus ir Girėno g.	Boiler room 2 MW	Burning	Wood fuel	t/year	1385,5	0	1750,381955
212000	C	210000	AIVIKS	303025677	UAB "Escolit"	Boiler room 1.32 MW	Burning	Natural gas	1,000 Nm^3 /year	42	80,82438886	0
161000	C	160000	AIVIKS	180303697	UAB "Robmona" kuro briketų gamybos cechas	Sawdust dryer 0.499 MW	Burning	Wood fuel	t/year	154,2	0	194,8097419

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
162300	C	160000	AIVIKS	180884042	UAB "TZV"	Boiler room 1.1 MW	Burning	Wood fuel	t/year	99,3	0	125,4514097
351200	D	350000	AIVIKS	302892572	UAB "Žemaitijos energija"	Boiler room 7 MW	Burning	Wood fuel	t/year	9056	0	11440,96643
105100	C	100000	AIVIKS	180240752	AB "ŽEMAITIJOS PIENAS"	Biofuel boiler 11.76 MW	Burning	Wood fuel	t/year	22205	0	28052,85551
105100	C	100000	AIVIKS	180240752	AB "ŽEMAITIJOS PIENAS"	Gas air heater HTV-N 1650 1.92 MW	Burning	Liquefied petroleum gas	t/year	78,5	239,7271779	0
105100	C	100000	AIVIKS	180240752	AB "ŽEMAITIJOS PIENAS"	Gas air heater HTV-N 1650 1.92 MW	Burning	Natural gas	1,000 Nm^3 /year	922,8	1775,827287	0
105100	C	100000	AIVIKS	180240752	AB "ŽEMAITIJOS PIENAS"	Steam boilers DE-16/14 19 MW	Burning	Natural gas	1,000 Nm^3 /year	391	752,4365725	0
353000	D	350000	AIVIKS	180884195	UAB "BIO zona" biokuro katilinė Žemaitės g.	Boiler room 4 MW	Burning	Wood fuel	t/year	1982,4	0	2504,480106
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Ubiškio paukštynas	Diesel generator	Burning	Gasoline	t/year	0,1	0,31302845	0

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Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Ubiškio paukštynas	Liquefied gas generators	Burning	Liquefied petroleum gas	t/year	23,3	71,15469102	0
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Ubiškio paukštynas	Boiler ZWE24-3MFK "Junkus" 12 kW (t.š.054)	Burning	Liquefied petroleum gas	t/year	0,1	0,30538494	0
014710	A	010000	AIVIKS	305174577	UAB "LIT EGG" Ubiškio paukštynas	Boiler ZWE24-3MFK "Junkus" 12 kW (t.š.001)	Burning	Liquefied petroleum gas	t/year	0,9	2,74846446	0
853200	P	850000	AIVIKS	190807514	VšĮ Telšių regioninis profesinio mokymo centras	Boiler room 0.98 MW	Burning	Wood fuel	t/year	401,5	0	507,2380764
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Burning	F1. Liquid – Other types of liquid fuels; Liquid fuels	t/year	50493,608	164830,2976	0
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Burning	F2. Gaseous – Other types of gaseous fuels; Mixture of	t/year	332296,485	855747,2739	0

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Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
								fuel and natural gas				
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Burning	F3. Gaseous – Other types of gaseous fuels; Flare gas	1,000 Nm^3	1040,450647	805,1007107	0
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Burning	F4. Gaseous – Other types of gaseous fuels; Hydrocarbon gases	t/year	48	1,343628	0
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Mass balance	F5. Material – Other materials; Hydrocarbon gases	t/year	68996,977	199708,8112	0
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Burning	F6. Solid – Petroleum coke; Petroleum coke	t/year	28	85,989652	0
192000	C	190000	EU ETS	166451720	AB "Orlen Lietuva"	Oil refinery	Mass balance	F7. Solid – Petroleum coke; Petroleum coke	t/year	108883,301	384279,4806	0

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	Section EVRK	Department of EVRK	Report	Entity code	Name of the business entity	Name of the combustion plant	Method	Name of the type of fuel used	Sees pcs.	Amount of fuel consumed	Fossil fuel $CO_{2(e)}$ (t)2	Biomass $CO_{2(e)}$ (t)
353000	D	350000	EU ETS	166901968	UAB "Mažeikių šilumos tinklai"	Mazeikiai boiler house	Burning	F1. Liquid – Diesel stove fuel; Stove fuel (E-class diesel)	t/year	98,171	306,671282	0
353000	D	350000	EU ETS	166901968	UAB "Mažeikių šilumos tinklai"	Mazeikiai boiler house	Burning	F2. Solid – Wood (non-waste); Biofuel	t/year	58908,092	0	93128,03828
353000	D	350000	EU ETS	170535455	UAB "Plungės šilumos tinklai"	Plungė Boiler Room No. 1	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	27,105	51,63102926	0
353000	D	350000	EU ETS	170535455	UAB "Plungės šilumos tinklai"	Plungė Boiler Room No. 1	Burning	F2. Solid – Wood (non-waste); Biofuel	t/year	8544,248	236,054595	10743,2289
0	X	-1	EU ETS	110853446	UAB "Litesko filialas Telšių šiluma"	Luokė boiler room	Burning	F1. Gas – Natural gas; Natural gas	1,000 Nm^3	7,041	13,41206704	0
0	X	-1	EU ETS	110853446	UAB "Litesko filialas Telšių šiluma"	Luokė boiler room	Burning	F2. Liquid – Diesel stove fuel; Diesel / gas oil	t/year	1,979	6,182095192	0
0	X	-1	EU ETS	110853446	UAB "Litesko filialas	Luokė boiler room	Burning	F3. Solid – Wood (non-waste); Biofuel	t/year	4221,82	0	5425,001548

NACE	NACE	NACE	Data Source	ID	Company Name	Equipment	Method	Fuel	Measure	Consumption Qty		
Class EVRK	**Section EVRK**	**Department of EVRK**	**Report**	**Entity code**	**Name of the business entity**	**Name of the combustion plant**	**Method**	**Name of the type of fuel used**	**Sees pcs.**	**Amount of fuel consumed**	**Fossil fuel $CO_{2(e)}$ (t)2**	**Biomass $CO_{2(e)}$ (t)**
					Telšių šiluma"							