

Low-Carbon Development Strategy (LCDS) for Montenegro

Five-year action plan (2026-2030)

February 2026

Submitted to **The World Bank. Partnership for Market Implementation.**

ECA

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Abbreviations and acronyms

BELEN	Berza električne energije
BRS	Building Renovation Strategy
CGES	Crnogorski elektroprenosni system
COTEE	Crnogorski operator tržišta električne energije
EPA	Environmental Protection Agency
EPC	Energy performance certificate
ETS	Emissions trading system
ESTDP	Electricity system development plan
EU	European Union
EV	Electric vehicle
GHG	Greenhouse gas
HFC	Hydrofluorocarbon
LCDS	Low Carbon Development Strategy
LULUCF	Land use, land use change, and forestry
MRV	Measurement, Reporting, and Verification
NECP	National Energy and Climate Plan
PAM	Policies and measures
PPA	Power purchase agreement
PPP	Public-private partnership
RE	Renewable energy
REGAGEN	Energy and Water Regulatory Agency of Montenegro
TPP	Thermal power plant



WAM

With Additional Measures

Low Carbon Development Strategy (LCDS) five-year action plan (2026-2030)

Montenegro's LCDS sets a pathway to achieve long term emissions' targets.

In December 2025 Montenegro adopted the “Law on Climate Change”. The law provides the enabling provisions for the development and implementation of core policies to support Montenegro to achieve its domestic targets and international obligations in relation to climate change and emissions reduction, including through the development of the Low Carbon Development Strategy (LCDS) and the Climate Change Adaptation Plan.¹ Targets include a long-term emission reduction target of climate neutrality by 2050 established in the Law and an intermediate target of a 55% reduction in net, economy-wide emissions by 2030 (compared to 1990) as expressed in Montenegro's Updated Nationally Determined Contribution (NDC).² Montenegro's extensive forests provides a substantial but uncertain carbon sink. The LCDS therefore provides a pathway to meet these targets with increased confidence by focusing on the minimisation of gross emissions at the sectoral level while proposing further activity in the land use, land use change, and forestry (LULUCF) sector. The LCDS is led by the Ministry of Ecology, Sustainable Development and Northern Region Development but supported by cross-cutting engagement with other state and public entities.

To ensure alignment across energy and climate planning, the LCDS uses Montenegro's National Climate and Energy Plan (NECP) as a basis.

Montenegro has recently adopted its NECP in fulfilment of the country's requirements as a signatory to the Energy Community Treaty. The LCDS proposes additional policies and measures (PAMs) to those included in the NECP that can increase the ambition level for emission reductions. The LCDS has been developed as a long-term enhancement of the NECP, and while the NECP focuses on the period to 2035, the LCDS emphasises long term opportunities to 2050. Together the two documents provide three scenarios of low carbon development for Montenegro:

- The NECP With Existing Measures (WEM) scenario (lowest ambition).
- The NECP With Additional Measures (WAM) scenario (medium ambition).
- The LCDS scenario (highest ambition).

¹ Government of Montenegro. 2025. [Climate Change Adaptation Plan for period 2025-2035 with action plan for period 2025-2027](#)

² Government of Montenegro. 2025. [Update of the NDC of Montenegro](#) (3.0 NDC)



The LCDS is to be implemented on the basis of five-year action plans.

The action plans outline the actions needed within a five-year period to successfully implement the policies and measures (PAMs) included in the LCDS. The action plans define actions, assign institutional responsibility for delivery of each action, set a deadline for delivery of each action, define indicators for monitoring achievement of each action, and provide an indicative budget for delivering each action. This document is the first action plan, and covers actions to be taken in the period 2026 to 2030. Action plans should be prepared for each subsequent five-year period up to 2050, and be published the year before each period begins. A schedule for publishing of LCDS action plans is provided in Table 1.

Table 1 Schedule for publication of LCDS action plans

Action Plan	First Action Plan	Second Action Plan	Third Action Plan	Forth Action Plan	Fifth Action Plan
Period covered	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
Year published	2026	2030	2035	2040	2045

Monitoring indicators outlined for in the LCDS five-year action plan (2026-2030) constitute easily measurable indicators that measure progress towards implementation of PAMs.

Many of the actions required to implement the LCDS PAMs in the period 2026 to 2030 are preparatory in nature, e.g., undertaking legislative reform or preparing strategy documents, and therefore will not necessarily directly deliver emissions reductions before 2030. Monitoring indicators have therefore been selected to reflect this and focus on achievement of specific tasks such as delivering a reform or publication of a strategy. Where possible, physical indicators have been specified, for example for the conversion of coppice to high forest. An economy wide target of a 35% reduction in total national GHG emissions (excl. LULUCF) by 2030 compared to 1990 (base year) has been set in Montenegro’s Updated NDC, this target is included as an overarching indicator of progress towards delivery of the LCDS.

High level budget estimates have been made for the delivery of each action.

Actions outlined in the Action Plan (excluding the implementation of the Building Renovation Strategy (BRS) which includes notable investment requirements for building improvement) focus on delivery of technical work including legislative and regulatory reform and preparing strategy documents. It is anticipated funding for this work will come from a combination of state budget and donor support. A summary of the budget required



for delivering the Action Plan by sector is provided in Table 2 below. It is assumed that sources of budget requirements set out in the NECP have already been identified, and these are not included in the budget summary.

Significant investment is going to be needed in renewable energy, electric mobility, and electric machinery between 2030 and 2050 to deliver the LCDS. However, most of this investment is likely to be undertaken later in the period and has not been included in the below budget because it is not tied to any of the specific actions included in the Action Plan. Furthermore, many of the relevant technologies are yet to reach maturity and there is large uncertainty in the total amount of investment that will be required. To a very large extent, investment is likely to be private sector led, with public support only provided as needed to address investment barriers and stimulate nascent markets.

Table 2 Indicative budget required to deliver the LCDS five-year action plan (2026-2030)

Sector	Budget (excludes budget already allocated under the NECP)
Energy Power generation (PG).	€ 530,000
Energy Transport (T).	€ 500,000
Energy Manufacturing and industrial energy use (IM).	€ 105,000
Energy Buildings (B).	2026-2030 budget required for the BRS: € 122 million
Industrial processes and product use (IPPU).	€ 50,000
Agriculture (AG).	-
Waste (W).	-
Land use, land use change, and forestry (LULUCF).	€ 150,000

The LCDS five-year action plan (2026-2030) is detailed in the table below.

Table 3 Montenegro LCDS five-year action plan (2026-2030)

Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Energy Power generation (PG).				
LCDS PAM PG.1: Alignment of the carbon price with the European Union (EU) Emissions Trading System (ETS) price by 2028.				
Task an inter-ministerial committee to assess and advise upon the impacts of the proposed project trajectory and implications for just transition, drawing on work undertaken by the World Bank’s Partnership for Market Integration (PMI) Update relevant implementing regulation to: <ul style="list-style-type: none"> • Set a price pathway that will align the price paid by controlled entities included in the Montenegro ETS by 2028. • If necessary, strengthen measurement, reporting, and verification (MRV) processes required for entities included in the Montenegro ETS with requirements for the EU ETS. 	Ministry of Ecology, Sustainable Development, and Northern Region Development.	Regulations updated by end 2026.	<ul style="list-style-type: none"> • Carbon price equal to the EU ETS by 2028. • MRV processes in line with the EU ETS by end 2027. 	Review and update of regulation including review of MRV processes: €100,000.
LCDS PAM PG.2: Retirement of TPP Pljevlja by 2035.				
Commitment to implement LCDS PAM PG.1 on alignment to EU ETS carbon price Preparation of a just transition plan for the Pljevlja region.	Just Transition Council, Ministry of Energy and Mining and the Municipality of Pljevlja.	Just Transition Strategy completed by end 2027.	<ul style="list-style-type: none"> • Final plan published by December 2026. • Plan should specify targets and indicators for reskilling and local economic diversification. 	€75,000.



Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Government to announce decision or Parliament to pass Law as needed to formally mandate closure, contingent on just transition plan identifying a feasible pathway to closure by 2035.	Ministry of Energy and Mining and the Municipality of Pljevlja.	Decision on formal adoption of this target to be made after the preparation of the just transition plan and before 2030.	<ul style="list-style-type: none"> Formal mandate to be made by 2030. 	Drafting of law if required: €25,000.
LCDS PAM PG.3: Full deployment of the renewable energy generation projects included in the electricity transmission system development plan (ETSDP) and not deployed under the National Energy and Climate Plan (NECP).				
Implement actions associated with EU market coupling and improved regional trade as outlined in the NECP including: <ul style="list-style-type: none"> Risk preparedness plan. Operationalisation of Security Coordination Region. Market coupling. Implementation of European Balancing Platforms. Operationalisation of the Capacity Calculation Region. 	Ministry of Energy and Mining, Crnogorski elektroprenosni system (CGES), Berza električne energije (BELEN), Crnogorski operator tržišta električne energije (COTEE), and Energy and Water Regulatory Agency of Montenegro (REGAGEN).	All actions to be completed by 2030.	<ul style="list-style-type: none"> Each action delivered by deadline set in the NECP. 	Budgets as allocated in the NECP: <ul style="list-style-type: none"> Risk preparedness plan: No cost assessment Operationalisation of Security Coordination region: €3 to 5 million annually. Market coupling: No cost assessment. Implementation of European Balancing Platforms: No cost assessment. Operationalisation of the Capacity Calculation Region:



Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
				€0.5 million annually.
Preparation of three-year auction plan, and delivery of second renewable energy capacity auction.	Ministry of Energy and Mining.	Three-year auction plan to be prepared during 2026. Second auction held during 2029.	Auction plan to be prepared by mid 2026. Auctions held by end 2029. Projects to have made required development progress by end 2030.	Preparation of three-year auction plan: €40,000. Delivery of capacity auction: €300,000. Budget for the auction subsidies to be allocated determined as part of the auction plan.
Energy Transport (T).				
LCDS PAM T.1: Develop and publish a transport decarbonisation strategy, including formalising targets included in the LCDS.				
Prepare and publish transport decarbonisation strategy document.	Ministry of Transport.	Strategy completed by end 2027.	Final strategy published by December 2027.	€50,000.
LCDS PAM T.2: Reduce car kilometres by 25% by 2035.				
Include reducing car kilometres by 25% by 2035 as a target in the transport decarbonisation strategy.	Ministry of Transport.	Strategy completed by end 2027.	Final strategy published by December 2027.	No additional budget required.
Deliver NECP With Additional Measures (WAM) PAM passenger transport shift to public bus transport.	Ministry of Transport, Local Municipalities, and the Eco Fund.	PAM implemented by 2030.	Buses 7% of total passenger transport by 2030.	Budget as allocated in the NECP: €10 million.
Review progress towards target including annual estimates of the total car kilometres, and detailed review of actions taken and impact on car kilometres in 2030.	Ministry of Transport.	Annual progress estimate.	Annually publish estimate of total car kilometres travelled.	€25,000.

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Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Review should include a just transition angle to consider whether vulnerable citizens are being unfairly disadvantaged through reduced car use.		Full review undertaken in 2030.		
LCDS PAM T.3: 100% electrification of rail infrastructure by 2040.				
<p>Electrification of the Podgorica-Tuzi line, the only remaining non-electrified segment of line, is targeted for 2035 as a single pipeline project.</p> <p>To ensure feasibility of the 2035 electrification target, the following activities should be completed by 2030:</p> <ul style="list-style-type: none"> • Completion and approval of the Main Design (currently under preparation) for the Podgorica – Albania border railway section, focusing on modernization and electrification largely within the existing railway corridor, including geotechnical surveys, biodiversity surveys, ESIA approval. The Environmental Protection Agency (EPA) has provided the green light for the project in September 2025. • Securing financing and implementation readiness, with the project being prepared under the Western Balkans Investment Framework (WBIF) – Infrastructure Project Facility Technical Assistance 11 (IPF11), and ensuring coordination with Albania for cross-border interoperability. 	Ministry of Transport.	<p>Complete main design and other technical reports and documents during 2026 and 2028.</p> <p>Secure funding during 2029 and 2030.</p>	<p>Main design and all other documents completed and published by 2028.</p> <p>Full funding and finance secured by 2030.</p>	Budget for detailed design, geotechnical surveys, biodiversity surveys, and ESIA approval: €400,000.
LCDS PAM T.4: 90% of road transport vehicles zero emissions by 2050.				
Installation of the 50 fast charging stations and 500 slow charging stations by 2030 included in NECP WAM PAM promotion of e-mobility.	Ministry of Energy and Mining, Ministry of Transport, and the Eco Fund.	PAM target achieved by 2030.	50 fast charging stations installed and 500 slow charging stations installed.	Per the NECP, total budget across these two actions is: €353

Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Provide subsidies for electric vehicles (EVs) to support achievement of the target of 35,000 EVs by 2030 included in the NECP WAM PAM promotion of e-mobility.	Ministry of Energy and Mining, Ministry of Transport, and the Eco Fund.	PAM targets achieved by 2030.	35,000 EVs registered in Montenegro by 2030.	million across six years.
Prepare a plan for ongoing support based on success of the NECP WAM PAM Promotion of e-mobility in the period for 2026-2029. Assess the need for supporting: <ul style="list-style-type: none"> Roll out of further EV charging infrastructure. Additional financial support for EVs if the market has not become established. Support for hydrogen fuelling infrastructure. 	Ministry of Energy and Mining, Ministry of Transport, and the Eco Fund.	Prepare a five-year plan for EV roll out in Q4 2030.	Five-year plan published by end 2030.	Budget for preparing five-year plan: €25,000.
Energy Manufacturing and industrial energy use (IM).				
LCDS PAM IM.1: 95% of industrial and manufacturing fossil fuel use to be replaced with electricity.				
Deliver NECP WAM PAM Financial incentives for introduction of hybrid special working machines in industry sector, targeting 10% of industrial and manufacturing energy use to be electricity by 2030.	Ministry of Energy and Mining, and the Eco Fund.	Financial incentives to be available by 2027.	10% of industrial energy to be electricity by 2030.	Per the NECP, total budget is: €5 million across five years.
Assess the need for establishment of a specific fund for industrial electrification, similar to the EU innovation fund, or whether current arrangements through the Eco Fund are sufficient. Assessment should review and evaluate the success of NECP WAM PAM Financial incentives for introduction of hybrid special working machines in industry sector as a key-inputs to determine the suitability of current arrangements.	Ministry of Energy and Mining, and Ministry of Economic Development.	Assessment to be undertaken throughout 2030.	Assessment report published by end 2030.	€25,000.
Assess whether current industrial energy efficiency standards are sufficient for achievement of industrial electrification targets.	Ministry of Energy and Mining, and Ministry of Economic Development.	Assessment to be undertaken throughout 2027.	Assessment report published by end 2027.	€15,000.

Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Review existing regulatory and market arrangements identify barriers to power purchase agreements (PPAs) between industrial facilities and RE generators, and identify actions needed to remove barriers. ³	Ministry of Energy and Mining, and Ministry of Economic Development.	Assessment to be undertaken throughout 2027.	Assessment report published by end 2027.	€15,000.
Provide training, capacity building, and other education on industrial electrification.	Ministry of Energy and Mining, and Ministry of Economic Development.	Training to be provided on an ongoing basis, starting 2027.	100 companies to have received training on energy efficiency and industrial electrification by 2030.	€50,000.
Energy Buildings (B).				
LCDS PAM B.1: Implementation of Montenegro’s Building Renovation Strategy (BRS).				
<i>The BRS details a list of indicative actions to be taken in the period 2026-2030, these are outlined below.⁴</i>				
Set out an implementation plan or roadmap, each with a timetable, lead responsibility, and resource requirements	Ministry of Energy and Mining.	Q1 2026 – Q2 2027	The BRS outlines a plan to establish a team for monitoring progress of the strategy. The monitoring team will be mandated to set physical evaluation criteria including: <ul style="list-style-type: none"> • Number of buildings renovated, per 	Resource requirement per the BRS: no costs
Focus on early priorities for 2025-2027.	Ministry of Energy and Mining and the Eco Fund.	Q1 2027 – Q4 2029		Resource requirement per the BRS: €10 million annually for pilot programs.
Establish effective regulatory measures for new and existing buildings.	Ministry of Spatial Planning, Urbanism, and State Property.	Q1 2027 – Q4 2028		Resource requirement per the BRS: €100,000 annually for monitoring.

³ If determined to be most efficient by the responsible institutions, assessment activities may be consolidated into a single report.

⁴ Timelines for BRS activities have been amended from the BRS to reflect updated information on budget allocations.

Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Make energy efficiency visible through mandatory energy labelling.	Energy and Water Regulatory Agency of Montenegro (REGAGEN).	Q3 2025 – Q4 2026	sector, type, climatic zone, building age group, building area and number of inhabitants/users; <ul style="list-style-type: none"> • Estimated energy savings, based on energy performance certificate (EPC) assessment before and after implementation of the renovation, in terms of the total annual primary and final energy saved (GWh, kWh/m²); • Estimated CO₂ emissions saved (Mt). • Reduction of energy poverty, with specific criteria to be identified aligned with Montenegro's national definition of energy poverty. 	Resource requirement per the BRS: €200,000 annually for campaigns.
Provide support to households and commercial building owners with renovation plans.	Municipal authorities and the Eco Fund.	Q1 2026 – Q4 2030		Resource requirement per the BRS: €5 million annually for advisory services.
Implement tailored financial support programmes for different target groups.	Eco Fund.	Q1 2026 – Q4 2030		Resource requirement per the BRS: €15 million annually.
Develop regional initiatives tailored to local needs.	Regional energy agencies.	Q2 2027 – Q4 2029		Resource requirement per the BRS: €2 million per region.
Provide training and certification programmes for professionals in the energy efficiency sector.	Ministry of Education, Science and Innovation / Vocational Institutes.	Q1 2026 – Q4 2028		Resource requirement per the BRS: no costs.
Propose specific actions for publicly managed buildings (renovations, public procurement standards).	Ministry of Public Administration.	Q1 2026 – Q2 2029		Resource requirement per the BRS: no costs.
Establish monitoring tools for tracking progress and analysing successes/pitfalls.	Ministry of Energy and Mining.	Q1 2027 – Q4 2028		Resource requirement per the BRS: €100,000 for monitoring systems
Develop a detailed building stock database.	Ministry of Energy and Mining and Monstat.	Q1 2027 – Q2 2028		Resource requirement per the BRS: €250,000



Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
Enforce compliance with EPC requirements.	Energy and Water Regulatory Agency of Montenegro (REGAGEN).	Q2 2025 - Ongoing	The team will also be mandated to monitor delays to the implementation of actions for delivering the strategy.	Resource requirement per the BRS: €100,000 annually.
Establish a public awareness campaign on energy efficiency benefits.	Ministry of Energy and Mining and the Eco Fund.	Q3 2027 - Q4 2028		Resource requirement per the BRS: €100,000.
Provide subsidies and low-interest loans for building renovations.	Eco Fund.	Q1 2026 - Q4 2031		Resource requirement per the BRS: €10 million annually.
Develop training programmes for energy auditors and construction workers.	Ministry of Education, Science and Innovation / Training Institutes.	Q2 2027 - Q4 2028		Resource requirement per the BRS: €150,000.
Strengthen institutional capacity for regulatory enforcement.	Ministry of Energy and Mining / Municipal Authorities.	Q1 2027 - Q4 2028		Resource requirement per the BRS: € 50,000.
Conduct pilot projects to demonstrate energy efficient renovations.	Eco Fund / Municipalities.	Q1 2026 – Q2 2027		Resource requirement per the BRS: €3 million.
Establish a monitoring and evaluation framework for renovation progress.	Ministry of Energy and Mining.	Q1 2027 – Q2 2028		Resource requirement per the BRS: €200,000.
Facilitate public-private partnerships (PPPs) for large-scale projects.	Ministry of Energy and Mining.	Q2 2027 - Q4 2029		Resource requirement per the BRS: no costs.
Update building regulations to align with nearly-zero energy standards.	Ministry of Spatial Planning, Urbanism, and State Property.	Q3 2027 - Q4 2028		Resource requirement per the BRS: €50,000.
Industrial processes and product use (IPPU).				

Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
LCDS PAM IPPU.1: Development and implementation of plans for Phases II, III and IV for reduction of hydrofluorocarbon (HFC) use in line with the Kigali Amendment.				
Develop a plan for phase II for reduction of HFC use.	Environment Protection Agency.	Plan to be developed in 2029.	Plan to achieve a 30% reduction in HFC emissions by 2035 published by end 2029.	€50,000.
Agriculture (AG).				
LCDS PAM AG1: Assignment of responsibility within the Ministry of Agriculture, Forestry and Water Management to monitor international developments in agricultural mitigation technologies.				
Creation of a working group within the Ministry with responsibility for monitoring developments.	Ministry of Agriculture, Forestry and Water Management	Working group established by end 2026.	Working group to submit annual reports of monitoring activities.	No costs.
Waste (W).				
LCDS PAM W1: Assignment of responsibility within the Ministry of Ecology, Sustainable Development and Northern Development to monitor international developments in waste management technologies and processes.				
Creation of a working group within the Ministry with responsibility for monitoring developments to ensure timely adoption in Montenegro.	Ministry of Ecology, Sustainable Development and Northern Development	Working group established by end 2026.	Working group to submit annual reports of monitoring activities.	No costs.
Land use, land use change, and forestry (LULUCF).				
LCDS PAM LULUCF1: Conversion of coppice to high forests.				
Identification of coppice areas to be converted to high forest and undertake a cost and implementation assessment of coppice areas to be converted.	Forestry Department of the Ministry of Agriculture, Forestry and Water Management.	Identification of coppice areas during 2027, cost and	List of areas for conversion published by end 2027.	€100,000.

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Action	Institution responsible	Timeline	Monitoring indicators	Indicative budget
		implementation assessment during 2027.	Cost and implementation assessments published by end 2027.	
Conversion of 60% of the identified coppice areas to high forest.	Forestry Department of the Ministry of Agriculture, Forestry and Water Management.	20% to be converted each year from 2028 to 2030.	388 hectares to begin conversion each year of the programme. Total 1,164 hectares to be under conversion by 2030.	Cost estimate to be provided as part of the above action.
LCDS PAM LULUCF2: Consider inclusion of carbon removals from soils for Forst Land, Cropland and Grassland for the LULUCF sector.				
Cost benefit assessment balancing the need for increased MRV against the potential benefits of increasing the forest sink in the national greenhouse gas (GHG) inventory.	Environmental Protection Agency.	Cost benefit analysis to be completed during 2027.	Report published and decision made on inclusion by end 2027.	€50,000.
Cross sectoral monitoring indicators.				
At least a 35% reduction in total national GHG emissions (excl. LULUCF) by 2030 compared to 1990 (base year).				

