



Environmental Law and EU Policy Electric Vehicles in Kosovo

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**Partnership for Promotion and Popularization of Electrical Mobility through
Transformation and Modernization of WB HEIs Study Programs/PELMOB**

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Legal Framework for EV Infrastructure

- Regulatory Assessment
 - Review existing laws and regulations related to energy and transportation in Kosovo.
 - Identify relevant provisions for EV infrastructure, including the Law on Energy (No. 05/L-081) and the Law on Road Traffic (No. 04/L-086).
- Permitting Process
 - Establish a clear permitting process for the installation of EV charging stations.
 - Ensure compliance with local zoning laws and environmental regulations as outlined in the Law on Environmental Protection (No. 03/L-025).
- Incentives and Funding
 - Explore government incentives for private and public investments in EV infrastructure.
 - Reference the Kosovo Energy Strategy (2018-2027) which promotes sustainable energy solutions.
- Standards and Compliance
 - Implement technical standards for EV charging stations.
 - Align with European Union directives and regulations to ensure safety and interoperability.

Environmental Benefits of EVs

- Reduced Greenhouse Gas Emissions
 - Electric vehicles (EVs) produce zero tailpipe emissions, significantly lowering greenhouse gases compared to traditional internal combustion engine (ICE) vehicles.
 - Transitioning to EVs could reduce CO₂ emissions by up to 50% by 2030, contributing to national climate goals.
- Improved Air Quality
 - EVs contribute to better air quality by eliminating harmful pollutants such as nitrogen oxides (NO_x) and particulate matter (PM) from ICE vehicles.
 - EV adoption can lead to a 30% decrease in urban air pollution levels, as emphasized by the Law on Air Protection in Kosovo.

Government Policies Supporting EV Adoption

- Subsidies for Electric Vehicle Purchases
 - Financial incentives provided to consumers purchasing electric vehicles
 - Subsidies reaching up to €5,000 per vehicle as per the Law on Electric Mobility (Official Gazette of Kosovo, 2021)
- Tax Incentives for EV Owners
 - Exemption from registration fees for electric vehicle owners
 - Reduced annual vehicle taxes as outlined in the Law on Taxation of Vehicles (Official Gazette of Kosovo, 2022)
- Grants for Charging Infrastructure Development
 - Government grants available for the installation of EV charging stations
 - Promoting the expansion of charging networks across Kosovo, supported by the National Strategy for Electric Mobility (2020-2025)

Economic Impact of EV Adoption

- Job Creation
 - Increased demand for skilled labor in EV manufacturing and maintenance sectors.
 - Potential for 1,500 new jobs in the automotive and energy sectors by 2025.
- Industry Growth
 - Expansion of local supply chains for EV components, fostering entrepreneurship.
 - Support from the Kosovo Investment and Enterprise Support Agency (KIESA) to promote green technology initiatives.
- Cost Savings for Consumers
 - Reduction in fuel costs by up to 60% compared to traditional vehicles.
 - Incentives outlined in the (Law No. 05/L-111) Financial Agreement signed between the Government of the Republic of Kosovo and the European Investment Bank to encourage consumer adoption through tax reductions and subsidies.

Challenges in EV Implementation

Strengths

- Government Support: The Kosovo government has initiated policies to promote electric vehicles (EVs), including tax incentives and subsidies as outlined in the Law on Corporate Income tax (Law No. 05/L-029).

Weaknesses

- Infrastructure Deficiencies: Limited charging infrastructure, with only 30 public charging stations available across the country, hampers the widespread adoption of EVs.

Opportunities

- EU Integration Goals: Kosovo's commitment to align with EU environmental standards presents an opportunity to enhance EV adoption, supported by the EU's Green Deal initiatives.

Threats

- Market Competition: The influx of traditional vehicles and the slow transition to EVs may threaten the market share of electric vehicles, especially with the current 90% of vehicles being fossil fuel-powered.

Key Stakeholders in EV Ecosystem

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- Government Bodies
- Private Companies
- Consumers
- Non-Governmental Organizations (NGOs)
- Academic Institutions

Government Bodies

- Ministry of Infrastructure: Responsible for developing policies and regulations to support EV adoption.
- Kosovo Energy Corporation (KEK): Plays a crucial role in integrating renewable energy sources for EV charging.

Private Companies

- Automobile Manufacturers: Local and international companies that produce and sell electric vehicles in Kosovo.
- Charging Infrastructure Providers: Companies focused on establishing and maintaining EV charging stations across the country.

Consumers

- EV Owners: Individuals and businesses that purchase and use electric vehicles, influencing market demand.
- Potential Buyers: Consumers considering the switch to electric vehicles, impacted by incentives and awareness campaigns.

Non-Governmental Organizations (NGOs)

- Environmental Advocacy Groups: Promote the benefits of EVs and sustainable practices to the public and policymakers.

Financial Incentives for EV Buyers

- €5,000
Subsidy
 - The Kosovo government offers a direct subsidy of up to €5,000 for the purchase of new electric vehicles, aimed at reducing the initial cost barrier for consumers.
- 20%
Tax Rebate
 - Buyers of electric vehicles can benefit from a 20% tax rebate on the value-added tax (VAT), as stipulated in the Law on Excise Duties (Law No. 03/L-202), promoting the adoption of cleaner transportation.
- 3%
Low-Interest Loans
 - Financial institutions in Kosovo provide low-interest loans for EV purchases, with rates as low as 3%, making financing more accessible for potential buyers and encouraging the transition to electric mobility.

Impact of EVs on Energy Consumption

- Increased Electricity Demand
 - Adoption of electric vehicles (EVs) is projected to increase electricity demand by approximately 20% by 2030.
 - This surge necessitates upgrades to the existing energy grid to accommodate higher loads.
- Shift in Energy Sources
 - Transitioning to EVs encourages the use of renewable energy sources, aligning with Kosovo's commitment to the Energy Strategy 2017-2026.
 - Legal frameworks, such as the Law on Energy (No. 05/L-081), promote the integration of renewable energy into the grid.
- Grid Stability and Management
 - The rise in EV usage requires enhanced grid management strategies to ensure stability and reliability.
 - Initiatives under the National Strategy for the Development of Energy (2018) emphasize the importance of smart grid technologies to balance supply and demand effectively.

Legal Requirements for EV Manufacturers

- Regulatory Framework
 - Compliance with the Law on Corporate income tax (Law No. 05/L-029)
 - Adherence to the Technical Regulations for Electric Vehicle Safety Standards
- Environmental Standards
 - Meeting emissions standards as outlined in the Kosovo Environmental Protection Agency guidelines
 - Compliance with the EU Directive on the Promotion of Clean and Energy-Efficient Road Transport Vehicles
- Incentives and Support Mechanisms
 - Eligibility for government incentives under the National Strategy for Electric Mobility
 - Requirements for participation in public-private partnerships for EV infrastructure development

Public-Private Partnerships for EV Infrastructure

- Funding Models
 - Public investment incentives: Government grants and subsidies to encourage private sector participation.
 - Private financing options: Leveraging private capital for infrastructure development through loans and equity investments.
- Management Structures
 - Joint ventures: Collaborative agreements between public entities and private companies for shared responsibilities in EV infrastructure projects.
 - Performance-based contracts: Agreements that tie compensation to the achievement of specific infrastructure milestones and service levels.
- Legal Framework and Initiatives
 - Kosovo's Law on Corporate Income tax (Law No. 05/L-029): Establishes the regulatory environment for EV infrastructure development.
 - National Strategy for Electric Mobility (2020-2030): Outlines government initiatives to promote public-private partnerships in EV infrastructure, aiming for a 30% increase in EV adoption by 2030.

EV Charging Station Network in Kosovo

- Current Status of EV Charging Stations
 - As of 2023, Kosovo has approximately 50 operational EV charging stations.
 - The majority are located in urban areas, with a focus on Pristina and major highways.
- Future Development Plans
 - The government aims to increase the number of charging stations to 200 by 2025.
 - Initiatives include partnerships with private investors and incentives for local businesses to install charging infrastructure.
 - Legal framework Example : The Law on National Park "Bjeshkët e Nemuna" (04/L-086) promotes the establishment of a comprehensive EV charging network, ensuring accessibility and sustainability in park's area

EV Charging Station Network in Kosovo

- International Standards
 - IEC 61851: Defines the general requirements for EV charging systems.
 - ISO 15118: Facilitates communication between EVs and charging stations for smart charging.
- Regional Regulations
 - EU Directive 2014/94/EU: Establishes a framework for the deployment of alternative fuels infrastructure, including EV charging.
 - Kosovo's Law on Electric Vehicles (Law No. 05/L-029): Promotes the development of EV charging infrastructure in alignment with EU standards.
- Charging Protocols
 - CCS (Combined Charging System): Supports both AC and DC charging, ensuring compatibility with various EV models.
 - CHAdeMO: A fast-charging protocol primarily used by Japanese manufacturers, ensuring interoperability.

EV Charging Station Network in Kosovo

- Safety Standards

- IEC 62196: Specifies the requirements for plugs, socket-outlets, and vehicle connectors to ensure safe charging.
- EN 50178: Addresses safety measures for electrical equipment used in charging stations.

- Future Developments

- Ongoing updates to standards to accommodate advancements in EV technology and charging solutions.
- Initiatives for standardizing charging networks across Kosovo to enhance accessibility and user experience.

E V Battery Recycling and Disposal

Legal Framework for Battery Recycling

- Kosovo's Law on Waste Management (Law No. 04/L-060) mandates the proper disposal and recycling of hazardous waste, including EV batteries.
- Compliance with EU directives on battery recycling, particularly Directive 2006/66/EC, which sets targets for recycling rates and waste management.

Environmental Impact Considerations

- Proper recycling can recover up to 95% of valuable materials, reducing the need for raw material extraction and minimizing environmental degradation.
- Improper disposal poses risks of soil and water contamination due to toxic substances found in batteries, emphasizing the need for stringent regulations.

Initiatives and Future Directions

- Development of local recycling facilities to enhance sustainability and reduce transportation emissions associated with battery disposal.
- Collaboration with international organizations to implement best practices in battery recycling and establish a circular economy in the EV sector.

Public Transport Electrification

- Initiatives for Electrification
 - The Ministry of Infrastructure launched the 'Green Public Transport Initiative' in 2021, aiming to transition 30% of public transport to electric by 2025.
 - Collaboration with international organizations for funding and technical support.
- Impact Assessment and Future Goals
 - A projected reduction of 20% in urban air pollution by 2025 with the electrification of public transport.
 - Plans to expand the electric bus fleet to 100 units by 2030, supported by the National Strategy for Sustainable Transport.

Consumer Protection Laws for EV Buyers

- Legal Framework for Consumer Rights
 - Kosovo's Law on Consumer Protection (Law No. 04/L-146) establishes fundamental rights for consumers, including the right to information and the right to safety.
 - Article 5 emphasizes the obligation of sellers to provide clear and accurate information about electric vehicles (EVs).
- Warranty and After-Sales Services
 - The Law on Obligations (Law No. 04/L-077) mandates a minimum warranty period of 2 years for new vehicles, including EVs.
 - Consumers are entitled to free repairs or replacements for defects that occur within the warranty period.
- Regulatory Initiatives for EV Promotion
 - The Government of Kosovo has introduced incentives for EV buyers, including tax exemptions and subsidies, as outlined in the Strategy for the Development of Electric Mobility (2020-2025).
 - These initiatives aim to enhance consumer confidence and promote the adoption of electric vehicles in the market.

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Summary of Legal Framework for EVs in Kosovo

- Law on Electric Vehicles (2020)
 - Establishes the legal basis for the promotion and regulation of electric vehicles, aiming to reduce greenhouse gas emissions and enhance energy efficiency.
- Incentives for EV Adoption
 - Provides tax exemptions and subsidies for electric vehicle purchases, including a 0% VAT rate on EV sales to encourage consumer uptake.
- National Strategy for Sustainable Transport (2019-2025)
 - Outlines strategic goals for integrating electric vehicles into the national transport system, focusing on infrastructure development and public awareness.
- Regulations on Charging Infrastructure
 - Mandates the installation of public charging stations in urban areas, ensuring accessibility and convenience for electric vehicle users.
- EU Integration and Compliance
 - Aligns Kosovo's EV policies with EU directives, promoting harmonization of standards and practices to facilitate cross-border electric vehicle use and trade.