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# 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 CO<sub>2</sub> 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<sub>x</sub>) 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.

# EV 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.