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Pakistan's 'New Energy Vehicle (NEV) Policy, 2025-2030': An Assessment

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Pakistan's 'New Energy Vehicle (NEV) Policy, 2025-2030': An Assessment

Muhammad Faizan Fakhar[*]

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Executive Summary

The Ministry of Industries and Production, Government of Pakistan (GoP) is preparing to introduce the ***'New Energy Vehicle (NEV) Policy, 2025-2030'***, which aims to promote electric vehicles (EVs) and integrate alternative energy sources such as hydrogen. The policy sets ambitious targets, including achieving 90% NEV sales by 2040, 100% NEV sales by 2050, and zero-emission transportation by 2060.

While the policy outlines a strong case for carbon reduction and offers incentives for NEV adoption, it lacks critical details in implementation planning, data transparency, infrastructure development, financial sustainability, and risk mitigation.

This Policy Brief assesses the strengths and shortcomings of the proposed 'NEV Policy' and provides recommendations to enhance its effectiveness in achieving a sustainable transition to electric and alternative energy vehicles. To strengthen NEV's policy framework, this brief suggests the following measures:

- There is a need to provide verifiable references and empirical data to support claims on carbon emissions and NEV adoption benefits.
- Independent studies should be conducted to validate projections related to energy consumption and oil import reduction.
- There should be clear and specific milestones for NEV adoption in public transport, including integration timelines for mass transit services.
- Feasibility studies should be conducted to evaluate the cost-effectiveness of establishing dedicated feeder lines for charging stations. This process should involve consultations with key stakeholders, including the National Electric Power Regulatory Authority (NEPRA), the National Transmission and Despatch Company (NTDC), and Distribution Companies (DISCOs), to ensure technical viability, regulatory compliance, and efficient implementation.

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- The funding sources and operational framework for the Electric Vehicle Support Fund (EVSF) need to be clearly defined.
- A timeline and assessment framework should be established before imposing fuel taxes.
- Detailed guidelines for vehicle recycling and lithium-ion battery disposal should be developed.
- Risk assessments for supply chain disruptions and technological challenges need to be conducted.
- After-sales support for NEVs should be strengthened to encourage consumer confidence.
- Electrification of railways ought to be explored to alleviate the burden on road transport and enhance long-term sustainability.
- Adoption of solar-powered charging stations should be encouraged, along with incentives for installing solar panels at EV manufacturing and assembly units.
- The government should document stakeholder consultations and integrate industry feedback.

Opportunities for Strengthening Proposed NEV Policy

Pakistan's first Electric Vehicles (EVs) policy was launched in 2019,[1] which was further expanded and extended in 2020.[2] The GoP is preparing to introduce a revised policy on EVs under the title *'New Energy Vehicle (NEV) Policy, 2025-2030.'* This policy expands its scope beyond traditional EVs to include vehicles powered by emerging energy sources, such as hydrogen. There are several aspects of the policy that could, in theory, prove to be effective in achieving its goals; however, it also has some shortcomings. Some of the key aspects of the policy and associated shortcomings are analysed as follows:

1. Data Sources

The proposed 'NEV Policy, 2025-2030' presents a case for policy intervention by highlighting increasing carbon emissions in Pakistan and identifies the road transport sector as a primary contributor. While the policy highlights the urgency of addressing this environmental challenge, the supporting data, particularly statistics on CO_2 and greenhouse gas (GHG) emissions from the road sector, projected oil import bills, and energy utilisation by NEVs, lacks verifiable references and supporting evidence.

2. Timelines and Targets

The policy retains some EV penetration targets from previous policies while introducing new long-term goals, including 90% NEV sales by 2040, 100% NEV sales by 2050, and complete zero-emission transport by 2060. However, while the policy sets broad timelines for these targets, it lacks a phased implementation roadmap with clear milestones to track progress. Furthermore, the draft does not specify timelines or targets for the integration of NEVs into federal and provincial mass transit systems, creating uncertainty around its adoption in public transportation. Although it aligns with the incentive-driven

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1 Ministry of Climate Change and Environmental Coordination, *National Electric Vehicle Policy, 2019*, Government of Pakistan, https://mocc.gov.pk/SiteImage/Policy/EV%20Policy%20Final.pdf.

2 Ministry of Industries and Production, *Electric Vehicle Policy 2020-2025 (Draft): 2-3 Wheelers & Heavy Commercial Vehicles*, Government of Pakistan, June 2020, https://www.engineeringpakistan.com/wp-content/uploads/2020/08/EV-New-Tech-Policy-060420.pdf.

approach of earlier EV policies and offers a comprehensive set of tariff-based incentives for NEV imports and local manufacturing, it fails to establish specific manufacturing or import targets and corresponding timelines. Defining these elements is essential to ensure a structured and measurable transition toward widespread NEV adoption.

3. Infrastructure Development and Consultation

At times, the policy document tends to outline broad and general objectives without considering their implications. For instance, in the section on *'Charging Infrastructure Development'*, the policy claims that electricity will be provided to commercial charging stations with a separate feeder line to ensure continued power supply. While this claim may sound encouraging to potential investors, high logistical and operational costs are involved in installing separate feeder lines. In this regard, consultation with relevant departments and authorities such as the National Electric Power Regulatory Authority (NEPRA), National Transmission and Dispatch Company (NTDC), and Distribution Companies (DISCOs) is a prerequisite. Furthermore, the policy does not mention any stakeholders, consultants or partners that were involved in the formulation process.

4. Financial Sustainability

The policy proposes establishment of an *'Energy Vehicle Support Fund (EVSF)'* to facilitate the transition towards cleaner transportation. However, there are no details provided about the Fund's funding sources nor outlines a sustainable financial model to ensure its long-term viability. The policy also mentions introduction of a tax on traditional fuels as part of the transition strategy but does not provide a defined timeline or phased approach for its implementation. Without a structured timeline, such a measure appears impractical and could lead to economic uncertainty, particularly for industries and consumers reliant on conventional fuels.

5. Risk Mitigation

The proposed *'New Energy Vehicle (NEV) Policy, 2025-2030'* does not adequately address the risks associated with a nationwide transition to NEVs. Key challenges, such as potential disruptions in the NEV supply chain, limited local aftersales services, technological failures, and resistance from the domestic automobile industry, remain largely unexamined. The policy offers a car replacement scheme whereby consumers would receive 20% credit by the government on top of the scrap value of their old vehicles to buy NEVs. It states that the government will take the old vehicle into custody. However, disposal / recycling of such cars requires elaborate mechanisms which need to be addressed in the policy. Furthermore, one of the biggest environmental hazards associated with NEVs is recycling of depleted lithium-ion batteries. While the policy acknowledges this issue and proposes a broad framework for battery recycling, it lacks detailed implementation strategies to ensure effective waste management and environmental sustainability.

Recommendations

1. Data Transparency

- There is a need to provide verifiable references and empirical data to support claims on carbon emissions and NEV adoption benefits.
- Independent studies should be conducted to validate projections related to energy consumption and oil import reduction.

2. Phased Implementation Roadmap

- There should be clear and specific milestones for NEV adoption in public transport, including integration timelines for mass transit services.
- Annual manufacturing and import targets need to be set to track progress effectively.

3. Improved Infrastructure and Stakeholder Engagement

- Feasibility studies ought to be conducted on the cost-effectiveness of separate feeder lines for charging stations. Relevant stakeholders such as NEPRA, NTDC, and DISCOs should be consulted to ensure practical infrastructure development plans.
- Stakeholder consultations should be documented and industry feedback incorporated.

4. Financial and Environmental Sustainability

- Funding sources and operational framework for the Energy Vehicle Support Fund (EVSF) needs to be clearly defined.
- A timeline and assessment framework should be established before imposing fuel taxes.
- Detailed guidelines for vehicle recycling and lithium-ion battery disposal should be developed.

5. Risk Assessment and Alternative Solutions

- Risk assessments of supply chain disruptions and technological challenges need to be conducted.
- After-sales support for NEVs should be strengthened to encourage consumer confidence.
- There is a need to explore electrification of railways to alleviate the burden on road transportation.

6. Promotion of Solar Energy for EV Supply Chain

- Encouraging the use of solar-powered charging stations and incentivising solar panel installation at EV manufacturing and assembly units can help reduce reliance on fossil fuels, lower energy costs, and promote sustainable energy solutions.

Conclusion

The *'New Energy Vehicle (NEV) Policy, 2025-2030'* represents a step forward in Pakistan's transition to sustainable transportation. However, the policy's effectiveness could be undermined by gaps in data transparency, timelines and targets, infrastructure development, financial sustainability, and risk mitigation. Addressing these gaps through a structured and consultative approach is crucial for realising the policy's ambitious goals.

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