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PROGRAM ON ALTERNATIVE DEVELOPMENT

"Where is the government in the electrification of public utility vehicle transport?"

Insights from small-scale jeepney operators and drivers on the EV transition

Rafael Vicente V. Dimalanta and Jan Marvi F. Atienza

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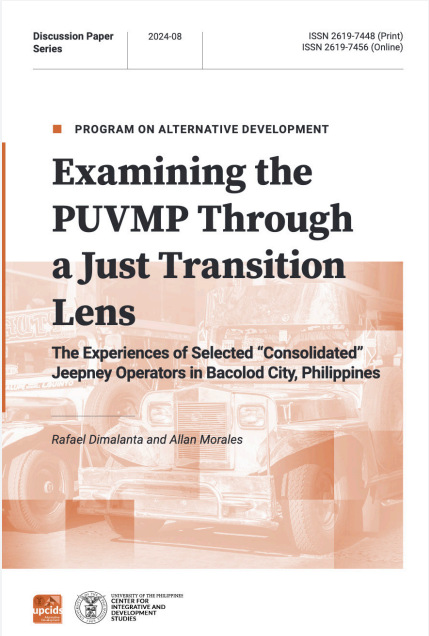

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Examining the PUVMP Through a Just Transition Lens

The Experiences of Selected "Consolidated" Jeepney Operators in Bacolod City, Philippines

Rafael Dimalanta and Allan Morales

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UNIVERSITY OF THE PHILIPPINES CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES

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POLICY BRIEF

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PROGRAM ON ALTERNATIVE DEVELOPMENT

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Putting Transport Workers and Commuters First:
The Route to Just Transition in Public Transport Modernization

Rafael Dimalanta • Jan Marvi Atienza • Edrich Samonte[1]

Introduction

In the Philippines, jeepneys are the most popular motorized land transport mode used by commuters. Although considered a paratransit, jeepneys are the backbone of transportation in both urban and rural areas (Romero et al. 2014; Mettke, Guillen, and Villaraza 2016; Boquet 2017; Mateo-Babiano et al. 2020). In Philippine urban areas, public transportation constitutes 80 percent of the overall ridership and trips, of which 40 percent are served by jeepneys. According to Pante (2016), one in five Metro Manila commuters rely on jeepneys for their daily transportation needs.

Informality in transportation, which includes paratransit, is not a deliberate policy choice. Rather, it is a result of unfulfilled public demand, which is not met by existing formalized supply (Cervero 2000). Jeepneys fill in gaps in public transportation supply (Mendoza 2021) "either as a feeder mode complementing other types of public transport, or supplement the lack of transport service provision in an area" (Mateo-Babiano 2015, 9). For commuters, jeepneys provide affordable, accessible, convenient, and versatile public transportation.

- *Affordable*. It is easily one of the cheapest modes of public transport in the country. Jeepney fares are easily affordable; before the pandemic, a trip of four kilometers costed PhP 8–10.
- *Accessible*. Prior to the pandemic, there were around 300,000 jeepneys in the country (Mendoza 2021). Among these jeepneys, 73,000 were in Metro Manila. The 685 jeepney routes in Metro Manila allowed commuters to secure a ride within 500 meters (Mettke, Guillen, and Villaraza 2016).
- *Convenient*. Jeepneys provide point-to-point transportation services, allowing passengers to embark and disembark at any point along a fixed route (Otsuka 1986). Furthermore, the convenience offered by jeepneys

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"WHERE IS THE GOVERNMENT IN THE ELECTRIFICATION OF PUBLIC UTILITY VEHICLE TRANSPORT?"

Insights from small-scale jeepney operators and drivers on the EV transition[1]

Rafael Vicente V. Dimalanta and Jan Marvi F. Atienza[2]

1 This paper advances from an earlier unpublished work entitled "The Electric Vehicle Industry Development Act and the Neoliberal Turn in the Energy Transition," written by the second author Jan Marvi F. Atienza (2025a) for the informal transport federation PISTON in March 2025.

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ABSTRACT

The paper critically examines the Philippine government's push for the electrification of public utility vehicles (PUVs) through the Electric Vehicle Industry Development Act (EVIDA) and its integration into the Public Utility Vehicle Modernization Program (PUVMP). From promoting Euro-4 compliant "modern" PUVs, the government is now increasingly shifting toward electric vehicles (EVs) as part of its broader efforts to "modernize" PUV transport - still in line with the goal of reducing the sector's dependence on fossil fuels. With EVIDA's implementation and the anticipated rollout of EV adoption into the PUVMP, jeepney operators and drivers (JODs) now face yet another significant transition - this time toward electric PUVs (ePUVs) or electric jeepneys (e-jeepneys).

Through a review of EV transition policy documents and focus group discussions held with PISTON-affiliated JOD associations in Metro Manila, the authors foreground the lived realities and economic precarity of informal transport workers. Findings show that JODs are unable to fulfill the amortization obligations required for e-jeepney acquisition without incurring financial deficits that threaten household survival. Moreover, the government's equity subsidies for acquisition of ePUVs are irregular and inadequate, while incentives for the PUV electrification do little to alleviate the economic burdens carried over to JODs in the EV transition. The paper also highlights that not only unconsolidated operators are at risk but also operators who have previously acquired Euro-4 compliant modern PUVs.

The authors call for the immediate suspension and overhaul of the PUVMP; the establishment of safeguards for consolidated PUV operators; a relaxation of electrification requirements in favor of supporting rehabilitation and local manufacturing of PUVs and jeepneys; and the reinstatement of five-year franchises of operators. Without meaningful state accountability in the electrification of PUV transport, the EV transition may become yet another "green initiative" that deepens the injustices experienced by JODs under the PUV "modernization" program.

INTRODUCTION

Republic Act No. 11697, or the Electric Vehicle Industry Development Act (EVIDA), lapsed into law in April 2022. The law seeks to reduce the transportation sector's reliance on fossil fuels, promote sustainable mobility alternatives, accelerate the transition towards electric mobility, and position the Philippines as a competitive player in the global electric vehicle (EV) ecosystem. It sets out the national framework for developing the EV industry, including the manufacture, importation, operation, and regulation of EVs and their related infrastructure (RA No. 11697; DOE 2023). To guide its implementation, the Department of Energy (DOE) developed the Comprehensive Roadmap for the Electric Vehicle Industry (CREVI), the central planning instrument for the EVIDA implementation which outlines time-bound targets, strategies, and mechanisms for EV adoption in the country (DOE 2023).

Under the EVIDA, the Department of Transportation (DOTr) is designated as the agency responsible for incorporating EVs into the Public Utility Vehicle Modernization Program (PUVMP). Initially launched in June 2017, the PUVMP was renamed the Public Transport Modernization Program (PTMP) in December 2023.[3] In fulfillment of its mandate under EVIDA, the DOTr initiated a public consultation in May 2024 on its draft Department Order (DO) specifying the guidelines for the registration, franchising, and operation of electric public utility vehicles (ePUVs) into the PUVMP/PTMP (RA No. 11697; DOE and DOTr 2022).

3 The primary distinction between the PUVMP (Public Utility Vehicle Modernization Program) and the PTMP (Public Transport Modernization Program) lies in the latter's explicit commitment to a 'just transition'. Furthermore, although the PTMP, in its name, appears to modernize the broader public transportation system, it remains focused only on the modernization of public utility vehicle transport.

Since its inception, the PUVMP/PTMP[4] has placed an overwhelming strain on PUV operators and drivers, especially jeepney operators and drivers (JODs). The program required them to relinquish their individual franchises, consolidate into transport cooperatives or corporations, and purchase costly Euro 4-compliant "modern" PUVs, resulting in significant debt. While the "modernization" program is framed by the Philippine government as a move toward a more environmentally sustainable public transportation system, numerous studies have highlighted its disproportionate socio-economic impact on small JODs (Mendoza 2021; Dimalanta, Atienza, and Samonte 2023; Gatarin 2024; Soriano, Mercado, and Mendoza 2024).

Studies have also drawn attention to the PUVMP/PTMP's hasty, arbitrary, and at times illogical implementation, which has further intensified the hardship experienced by JODs, especially after the COVID-19 pandemic that forced JODs to beg on the streets to meet their daily needs (Estipular 2020; Magno, Quizon, and Gatmaytan 2021; Presto, Crisostomo, and Francisco 2022; Aggabao, Belarmino and Velasco 2022; Tiglao et al. 2023; Biona et al. 2023; IBON Foundation 2024). Rather than facilitating a just transition, the way the PUVMP/PTMP has been strongly enforced by the government has exacerbated existing vulnerabilities of the jeepney sector (Dimalanta and Morales 2024; Velasco 2024).

With EVIDA's implementation and the expected rollout of the DOTr DO to facilitate the integration and adoption of EVs in the PUVMP/PTMP, JODs now face the prospect of another major transition — this time toward ePUVs or more specifically electric jeepneys (e-jeepneys).

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4 The PUVMP/PTMP aims to replace traditional jeepneys and other PUVs over 15 years old with Euro 4-compliant vehicles powered by LPG, electricity, or hybrid systems, which are considered as more environmentally sustainable due to reduced carbon emissions (DOTr 2017a; DOTr 2017b; Agaton, Collera, and Guno 2020).

However, there have been criticisms that the 'modern' PUVs mandated by the DOTr are outdated and older models from foreign vehicle manufacturers, which are then exported to the Philippines for the PUVMP/PMTP, and sold to jeepney operators (Mendoza 2021; Program on Alternative Development 2023).

Existing studies on EV adoption

Previous studies on EV adoption in the Philippines have primarily focused on commuter perceptions of using ePUVs as a mode of public transport (Gumasing et al. 2024); the willingness of consumers or end-users to purchase EVs (Uy, Ong, and German 2024); and broader systemic barriers to EV adoption in the country (Saflor et al. 2024). While some studies have touched on the jeepney sector, they lack direct engagement with JODs. For instance, Barlis (2022) employed a modeling approach to simulate the projected impacts of EV adoption policies on the jeepney sector. Ravago and Frias (2025) conducted a cost-benefit analysis, concluding that the gradual replacement of traditional jeepneys with e-jeepneys could yield significant environmental benefits; similarly, Stringer et al. (2025) reached comparable findings in their study which used a comprehensive model to simulate different scenarios of e-jeepney usage and electricity grid configurations. On the other hand, studies that directly engage with PUV operators or are grounded in their perspectives remain scarce. One such study is the work of Gaspay and Salison (2024), who collected data from consolidated transport cooperatives and corporations managing e-jeepney fleets. Their study aimed to identify key success factors in the operation of e-jeepneys and proposed interventions to improve cost-efficiency in such operations. Another notable study that examined the EV transition from the "worldview" of JODs is that of Gonzales et al. (2025). Employing a feedback-guided analysis approach that integrated both quantitative and qualitative methods, the study found that JODs are unlikely to shift to EVs if the projected net daily income is insufficient to meet their basic needs despite the anticipated environmental and even health benefits in the electrification of PUV transport.

Objective of the paper

Building on the findings of Gonzales et al. (2025), this paper focuses specifically on the perspectives of small-scale JODs, primarily those who remain unconsolidated under the PUVMP/PTMP. They are unarguably the poorest in the transport sector and are among the most directly affected by the government's push toward PUV electrification. This paper seeks to deepen the understanding of the reasons behind small-scale JODs' concerns and hesitations in shifting to e-jeepneys by foregrounding their socio-economic conditions and realities. It examines how they perceive the ongoing transition

toward the integration of EVs into the PUV "modernization" program, with particular emphasis on assessing EVIDA.

In doing so, the paper aims to contribute a more grounded perspective that can guide future policy reforms on PUV electrification and broader EV-related initiatives, with the overarching goal of promoting social justice and equity in the transition process. The paper argues that the EV transition in PUV transport must not disproportionately burden the already-vulnerable informal transport workers, and advances a call for greater government accountability in ensuring a just and equitable transition. The analysis in this paper draws from a review of key government documents, including EVIDA and the CREVI, and is further enriched by focus group discussions on the EV transition conducted in April 2025 with PISTON-affiliated jeepney operator and driver associations (JODAs) in Metro Manila.

EVIDA'S REGULATORY LANDSCAPE[5]

Actors and their roles in the EVIDA implementation

In implementing EVIDA, government agencies largely focus on setting standards and enforcing regulations - with the DOE leading the implementation of the EV transition.

The Energy Regulatory Commission (ERC), an attached agency of the DOE, oversees electricity pricing related to EVs. The DOTr mandates the inclusion of green routes which are specific routes for EVs and is tasked with integrating EVIDA with its "modernization" program for PUV transport; while Local Government Units (LGUs), in turn, are responsible for incorporating these green routes into their local public transport route plans under the PUVMP/ PTMP.

5 This section primarily draws from RA No. 11697 or EVIDA, the implementing rules and regulations (IRR) of EVIDA crafted by the DOE and DOTr (2022), and the Comprehensive Roadmap for the Electric Vehicle Industry (CREVI), developed by the Department of Energy (DOE) in April 2023.

On the other hand, The Department of Trade and Industry (DTI) plays a dual role - ensuring the quality and safety of EVs and consumer protection while also leading efforts on manufacturing and human resources development components under CREVI. The Department of Science and Technology (DOST), on the other hand, supports EVIDA through ensuring the research and development component of CREVI. Lastly, the Department of Environment and Natural Resources (DENR) oversees the proper recycling and disposal of EVs, charging stations, and their related waste (See Appendix A).

Operationalizing the EVIDA

The law operationalizes its objectives through a set of mandates designed to (1) stimulate demand for EVs; (2) establish the necessary infrastructure, particularly designated parking spaces for EVs, and electric vehicle charging stations (EVCS); and (3) incentivize participation from end-users, public utility vehicle (PUV) operators, and private sector entities, particularly EV manufacturers and importers.

1. Stimulating the EV demand

EVIDA mandates that at least five percent of the total vehicle fleets of covered entities must consist of EVs. This requirement applies to government institutions, including national government agencies (NGAs), government-owned and controlled corporations (GOCCs), and local government units (LGUs), as well as to private sector entities, particularly private corporations involved in logistics, food, hotel and tourism, and utilities industries. PUV transport operators – including those operating jeepneys, minibuses, buses, vans, tricycles, taxis, and transport network vehicle services - are also covered by this mandate.

CREVI outlines the timeframe for the gradual increase in the share of EVs within the fleets of these entities. CREVI presents two transition scenarios: the Business-as-Usual (BAU) scenario, which proposes a more conservative timeline for EV adoption, and the Clean Energy (CE) scenario, which sets a more ambitious target (See Appendix B).

2. *Establishing the necessary infrastructure for EVs*

The law further mandates the establishment of dedicated parking spaces for EVs within both private and government buildings and establishments.

Specifically, five percent of the total parking slots in a given building/ establishment must be allocated exclusively for EVs. Additionally, EVIDA requires the installation of EVCS adjacent to these dedicated parking spaces, as well as the construction of EVCS in existing gasoline stations.

To ensure compliance, LGUs are prohibited from issuing construction or renovation permits unless the requirements for dedicated EV parking spaces and the installation of EVCS have been accomplished in the architectural plans.

3. *Incentivizing participation from target groups - end-users, PUV operators, and EV manufacturers and importers*

To encourage the adoption of EVs, the government provides a range of fiscal and non-fiscal incentives targeting EV manufacturers and importers, end-users, and PUV operators. Table 1 below shows the types of incentives and the specific benefits granted to each target group under EVIDA.

Table 1. Incentives for EV manufacturers and imports, end-users, and PUV operators

TARGET GROUP	INCENTIVE TYPE	PARTICULAR BENEFITS
EV manufacturers and importers	Fiscal	Tax incentives to be given for manufacturing and assembly of EVs, electric vehicle charging stations (EVCS), batteries, and EV related parts and components; as well as establishment of EV-related infrastructure. (Incentives are under the National Internal Revenue Code of 1997, as amended by the CREATE Law, and the Omnibus Investments Code of 1987, as amended by Republic Act No. 11534; eligibility for these incentives are pending an evaluation).
		Additional support from the EV incentive strategy of the DTI.
		Tax incentives to be given for the importation of completely built units (CBUs) of EVs under the RA No. 10963 (also known as the TRAIN Law). (The Department of Finance (DOF), however, upon DTI's recommendation, may suspend these exemptions for imported electric jeepneys and tricycles to protect local vehicle manufacturers).
		Exemption from import duties of imported CBUs of EVCS; this is for eight years from the effectivity of EVIDA or until 2030.
EV manufacturers and importers	Non-fiscal	Expedited processing by the Bureau of Customs for the importation of parts and components for EV production.
		Permit for the employment of foreign experts under technology transfer agreements. (This is subject to the guidelines issued by the Department of Labor and Employment, Professional Regulation Commission, and the DTI).
End-users and PUV operators	Fiscal	Entitlement to a 30 percent discount for owners of battery EVs on vehicle registration and other fees and charges collected by the Land Transportation Office (LTO) under RA No. 8794; and 15 percent discount for owners of hybrid EVs (powered by both battery and fuel). (These discounts are valid for a period of eight years from the effectivity of EVIDA or until 2030).
	Non-fiscal	Priority registration and renewal of registration with the LTO.
		Entitlement to a special vehicle plate by the LTO.
		Exemption from number-coding and similar traffic reduction schemes.
Specific only for PUV operators	Non-fiscal	Expedited processing of franchise applications and renewals by the LTFRB (Land Transportation Franchising and Regulatory Board) for PUV operators exclusively using EVs.

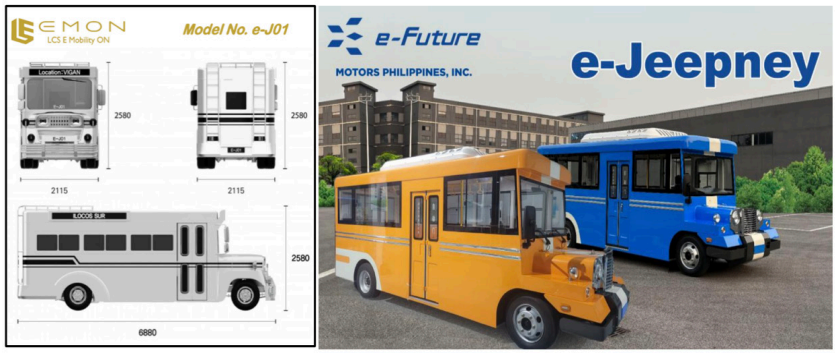
Note: Collated by the authors from RA No. 11697, and its implementing rules and regulations (IRR) drafted by the DOE and DOTr (2022)

INTERFACE OF EVIDA AND THE PUVMP/PTMP

Available data on the price of e-jeepneys

The classification of road motor vehicles follows the standards set by the Land Transportation Office (LTO) for vehicle registration and by the Land Transportation Franchising and Regulatory Board (LTFRB) for the application and renewal of franchises – certificates authorizing PUV operators to provide public transport services on specific routes (DOTr 2010, as cited in DOE 2023b). Under these standards, vehicles are broadly categorized into classes L, M, N, O, and SPV, with further subclassifications under each category. Jeepneys particularly fall under the M2 or M3 classification within the M category. The M classification also includes other PUVs such as buses, filcabs, and minibuses.

As of May 2025, the DOE, through its EVIDA website, lists a total of 38 DOE-recognized EV models under the M2 and M3 classifications - comprising 19 models each (DOE 2025). However, only 11 of these models bear a resemblance to traditional jeepneys in terms of design, seating capacity, and function. While the DOE provides a list of recognized e-jeepney models, the available information is limited to technical specifications, brand and model name, and EV type. Figure 1 below shows two e-jeepney models from DOE-accredited EV providers LCS EMON and E-Future Motors PH.



■ **Figure 1.** Photos of recognized e-jeepneys from LCS EMON (Left) and E-Future Motors PH (Right); Source: DOE (2025)

These two e-jeepney models were selected for this paper because their prices are publicly available and widely circulated. The pricing data, sourced from publicly accessible information provided by Guadalquiver (2024) in October 2024 and Singson as cited in Estacio (2025) in May 2025, are presented in Table 2.

Table 2. Pricing of accredited e-jeepney models (2024 and 2025 prices)

ePUV (E-JEEPNEY) MODEL	PRICE	ACCREDITED EV PROVIDER
LCS Emon - E-J01	Php 1.2 million (2025 price)	LCS EMON (a South Korea-based company that resulted from a collaboration between the Luis Chavit Singson or LCS Group of Companies and the Electric Mobility ON or EMON from South Korea)
e-Future e-Jeepney	Php 2.4 million (2024 price)	e-Future Motors PH (a subsidiary of China-based company Jiangsu Fengchuen New Energy Power Technology Co. Ltd.)

Note: Information on the accredited EV providers and models is derived by the authors from DOE (2025), while pricing details are sourced from Guadalquiver (2024) and Estacio (2025).

Monthly amortizations for e-jeepneys under the "modernization" program

To allow PUV operators, including traditional jeepney operators, to acquire and shift to Euro 4-compliant "modern" PUVs under the PUVMP/PTMP, government financial institutions such as the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP) offer loan programs. The loan terms under these programs require a minimum equity contribution of five percent per ePUV, while the remaining 95 percent of the vehicle cost is covered through the loan. The interest rate is set at six percent per annum, with a loan repayment period of seven years. Monthly amortization payments are fixed and equal throughout the duration of the loan period (DBP n.d.; LBP n.d.). In the shift to EVs, the electrification of PUVs is set to be carried out within the PUVMP/PTMP. As such, it is likely that the

same loan programs used for the acquisition of Euro 4-compliant "modern" PUVs will be applied to e-jeepneys.[6]

Table 3 below presents the computed monthly amortization for an e-jeepney priced at Php 1.2 million and Php 2.4 million, based on the seven-year repayment schedule. The corresponding monthly amortization amounts are Php 16,653.75 and Php 33,307.50, respectively. The computations below assume that the jeepney operator will not receive any equity subsidy under the PUVMP/PTMP.

Table 3. Monthly amortization for acquisition of e-jeepneys based on 2024 and 2025 pricing

PRICE OF E-JEEPNEY	LOAN PRINCIPAL AMOUNT (95% of the price of e-jeepney)	EQUITY CONTRIBUTION (5% of the price of e-jeepney)	MONTHLY PAYMENT	TOTAL INTEREST	TOTAL ACQUISITION COST (equity contribution plus principal and interest amounts)
Php 1.2 million (LCS Emon - E-J01)	Php 1,140,000	Php 60,000	Php 16,653.75	Php 258,915.18	Php 1,458,915.18
Php 2.4 million (e-Future e-Jeepney)	Php 2,280,000	Php 120,000	Php 33,307.50	Php 517,830.35	Php 2,917,830.35

Note: Computed by the authors using the terms provided in the PASADA and SPEED loan programs of DBP and LBP for the PUVMP/PTMP.

MADE TO CARRY THE WEIGHT ALONE - AGAIN!

In the previous section, we explained how the mandates of the EVIDA put into motion the transition to EVs by stimulating demand, establishing the necessary infrastructure for EVs, and incentivizing participation from target groups in the EV industry. This section surfaces critiques of small-JODs,

6 Accredited EV providers may offer alternative financing mechanisms. For instance, Luis Chavit Singson announced plans to make electric vehicles more affordable (Oladive 2024; The Philippine Star 2025), but these remain tentative, with the full details yet to be disclosed and their alignment with the existing 'modernization' program still unclear.

examining the PUV electrification through EVIDA from their perspective as informal transport workers.

Familiar financial burdens in the EV transition

In February 2025, the net daily income of a jeepney operator-driver ranged from Php 224.50 to Php 1,440.00, based on the computation of Dimalanta (2025) (See Table 4). The table below emphasizes the high volatility of net daily income of a jeepney operator-driver, which is largely driven by fluctuations in oil prices – a major component of their operational expenses. It is also important to note that the expenses reflected herein do not account for additional potential costs such as those arising from extortion by corrupt traffic enforcers, who may impose arbitrary fines and penalties.

Table 4. Computation of daily income and expense of a jeepney operator-driver

	INCOME	EXPENSE/S	DAILY NET INCOME
Typical gross income per day	Php 2,500.00 to Php 3,000.00	-	-
Diesel expense (at 30 liters/day for 12-hour jeepney operations for P52.00 to P75.85 price/ liter - price between January 28 - February 3, 2025)	-	Php 1,560.00 to Php 2,275.50	-
Total	**Php 2,500.00 to Php 3,000.00**	**Php 1,560.00 to Php 2,275.50**	**+Php 224.50 to +Php 1440.00**

Note: Derived by the authors from Dimalanta (2025); the estimate of the 'typical gross daily income' is drawn from FGDs with PISTON who provided the approximation of a jeepney operator-driver's average earnings per day; the price of diesel is from the DOE's Oil Industry Management Bureau - Price Monitoring of Liquid Fuels NCR.

Building on the February 2025 computation of Dimalanta (2025) on the monthly amortization for e-jeepneys, Tables 5 and 6[7] show the estimated amount left for the daily basic needs of jeepney operator-drivers after deducting the daily

7 Actual daily net income may vary significantly across jeepney operator-drivers; the figures used here are to show specific scenarios from which to examine the affordability gap in the acquisition of e-jeepneys.

allotments from their net daily income to meet the monthly amortization payments[8] for the e-jeepneys. The figures are based on two income scenarios – one representing the upper limit of the income range (amounting to Php 1,440.00) and the other representing the mid-range value (amounting to Php 832.25).[9] The computation assumes that the operator-driver works for 20 days in a month, which reflects their typical work schedule.

Table 5. Net daily income of a jeepney operator-driver vs. amortization for the Php 1.2 million e-jeepney

INCOME SCENARIO	NET DAILY INCOME	DAILY AMORTIZATION (Php 16,653.75 monthly amortization / 20 days)	AMOUNT LEFT FOR BASIC NEEDS
Upper limit	Php 1,440.00	Php 832.69	Php 607.31
Mid-range	Php 832.25	Php 832.69	- Php 0.44 (deficit)

Note: Computed by the authors.

Table 6. Net daily income of a jeepney operator-driver vs. amortization for the Php 2.4 million e-jeepney

INCOME SCENARIO	NET DAILY INCOME	DAILY AMORTIZATION (Php 33,307.50 monthly amortization / 20 days)	AMOUNT LEFT FOR BASIC NEEDS
Upper limit	Php 1,440.00	Php 1,665.38	- Php 225.38 (deficit)
Mid-range	Php 832.25	Php 1,665.38	- Php 833.13 (deficit)

Note: Computed by the authors.

8 The monthly amortization for a Php 1.2 million e-jeepney amounts to Php 16,653.75, while that for a Php 2.4 million e-jeepney is Php 33,307.50.

9 This mid-range value (Php 832.25) is computed as the average of the reported minimum (Php 224.50) and maximum (Php 1,440.00) daily net income of jeepney operator-drivers, following the formula: (min + max) / 2. It is used for illustrative purposes, in the absence of a more definitive income distribution.

The daily allotments for the monthly amortizations of both the Php 1.2 million and Php 2.4 million e-jeepneys place a significant financial strain on jeepney operator-drivers, leaving little to no room for covering their basic daily needs.

For the Php 1.2 million e-jeepney, the daily amortization of Php 832.69 accounts for a substantial portion of their income. In the upper limit of the income range scenario, the operator-drivers are left with just Php 607.31 after meeting the daily amortization requirement, which, while technically allowing for expenses for their household's basic needs, does not provide a sufficient buffer for unforeseen costs of jeepney operations (i.e. fuel price hikes, vehicle maintenance, or encounters with traffic enforcers) and for emergency expenses for their household. More concerning is the scenario based on the mid-range income, where the operator-drivers are left with a deficit of Php 0.44.

The financial burden becomes even more severe in the case of the Php 2.4 million e-jeepney, where the required daily amortization consistently exceeds the operator-driver's net daily income across both income scenarios. In the upper limit income scenario, the operator faces a daily deficit of Php 225.38, while in the mid-range income scenario, this deficit greatly increases to Php 833.13. This indicates that operator-drivers are unable to fulfill their amortization obligations without incurring a financial deficit. They are left with no remaining daily income to cover even the most basic needs of their households. For small-scale JODs, driving and operating jeepneys represent their primary source of income - their only means of securing their basic needs - with no other alternative livelihood or income streams. As such, they would have no other means to mitigate the financial deficit in the acquisition of e-jeepneys.

These calculations reveal a stark reality: jeepney operator-drivers, already burdened by the volatility of fuel prices and the rising cost of basic commodities, are placed in an increasingly precarious position. The financial obligations imposed by the PUVMP/PTMP and the EVIDA exceed the operator-drivers' capacity to pay, often force them to incur daily income deficits and compromise the basic needs of their households.

The authors, however, acknowledge that the actual acquisition process of e-jeepneys is more complex. Specifically, jeepney operators are encouraged to

form transport cooperatives or corporations, with a minimum requirement of acquiring 15 e-jeepneys. The calculations provided above focus on a simplified scenario intended to highlight the financial strain on individual jeepney operators for the acquisition of e-jeepneys, but they do not account for the transport cooperative or corporation model, nor do they include the additional costs associated with the process of consolidating into a single transport service entity. Consolidation costs amount to Php 300,000 plus an additional of Php 20,000 per unit of an e-jeepney (Dimalanta, Atienza, and Samonte 2023; Failon 2025).

Despite the simplicity of the calculations presented above, they demonstrate the significant financial challenges that jeepney operators may encounter in acquiring e-jeepneys for public transport service – even as electric-powered PUVs are generally priced lower than the earlier Euro 4-compliant "modern" PUVs.[10] This potential financial strain becomes more evident when the pricing of e-jeepneys are compared to those of traditional jeepneys, which range only between Php 200,000 and Php 400,000 (Dimalanta, Atienza, and Samonte 2023).

Still missing - government support for electrification

There is a lack of substantial financial support from the government for jeepney operators in facilitating the electrification of PUVs. The government's role has been largely limited to setting technical standards, creating demand for EVs, and providing incentives to target groups – such as private sector entities, end-users, and PUV operators – and enforcing these standards. The equity subsidy offered by the DOTr, under the PUVMP/PTMP, represents the only direct financial interventions of the government in support of this transition to EVs. This subsidy was introduced to help PUV operators meet the required equity contribution for loan programs under the PUVMP/PTMP. In response to widespread criticism from the transport sector regarding the inadequacy of government financial support, the subsidy amount was increased from Php 80,000 to Php 280,000 in August 2023 (Cordero 2023). However, its availability is highly uncertain, as it is contingent on annual national budget appropriations.

10 Euro-4 'modern' PUVs can cost upwards of Php 3 million depending on the supplier of the vehicles (Dimalanta and Morales 2024).

Notably, the PUVMP/PTMP received zero budget allocations in both 2023 and 2024 (Oliquino 2023), effectively eliminating the funding source for the equity subsidy. In 2025, the government allocated Php 1.6 billion to the PUVMP/PTMP (Poe 2025). Even assuming the entire amount were to be used exclusively for equity subsidies - which is unlikely, given that this budget covers the entire program and not just subsidies - only around 5,714[11] "modern" PUVs or ePUVs could be supported. As such, the number of vehicles that would be covered by the equity subsidy would be even lower.

This uncertain and limited equity subsidy remains the primary and only form of government financial support to PUV operators in complying with the requirements of the PUVMP and, by extension, the EVIDA, which complements the "modernization" program. The support of the government for the transition to EVs for PUV operators, including jeepney operators, is predominantly non-fiscal. These include priority registration and renewal of the said vehicles at the LTO as well as issuance of special vehicle plates for EVs from them; exemption from number coding schemes; and expedited processing of franchise applications and renewals from the LTFRB.[12] The only fiscal support available are minor discounts of 15 percent and 30 percent on LTO vehicle registration fees. Beyond these, no substantial financial support is provided by the government.

In the absence of consistent and adequate financial support from the government under EVIDA, the responsibility for the mobility transition is effectively shifted to the jeepney operators. This mirrors the approach of the PUVMP/PTMP, in the past eight years of its implementation, which similarly pushes for the scrapping of traditional jeepneys and places the financial responsibility of purchasing the prescribed vehicles solely on the small operators. This approach persists despite the well-documented and widely acknowledged fact, even amongst legislators (Dimalanta and Atienza 2025), that jeepney operators, in particular, possess severely limited financial capabilities - even to acquire the relatively less expensive e-jeepneys.

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11 This figure was computed by dividing the total allocation for the PUVMP, amounting to Php 1.6 billion, by the equity subsidy of Php 280,000.

12 This incentive only applies to transport cooperatives or corporations whose fleets are all exclusively EVs.

Recurring risks and issues in the transition to EVs

Livelihood displacement or more debts?

A great concern among small jeepney operators is the potential displacement of their livelihoods due to the mandated shift to e-jeepneys. This issue is particularly relevant for operators who have yet to participate in, or have resisted, the PUVMP/PTMP. Their apprehension arises from the government's previous push for Euro 4-compliant "modern" PUVs during the first eight years of the PUVMP/PTMP. This phase of the program further marginalized small operators, majority of whom were unable to afford the high acquisition costs of the prescribed PUVs, along with the additional costs and requirements necessary to comply with the PUVMP/PTMP.

The impending transition to e-jeepneys presents similar risks. Although these vehicles are more environmentally sustainable (Van der Steen et al. 2015; Dominkovic et al. 2018; Agaton, Collera, and Guno 2020), and more affordable than the earlier Euro 4-compliant PUV models, affordability remains a significant concern – especially in the absence of adequate and consistent government financial support for their acquisition, as evidenced earlier in this section.

According to the latest figures from the DOTr in November 2024 (Failon 2025; Pascual 2025),[13] most PUVs in the Philippines have yet to be "consolidated" – meaning their operators have either not yet applied/resisted entry to the program, unable to comply with the program's requirements, or have had their consolidation applications remain unapproved.

Specifically, only 37.08 percent of PUVs nationwide have successfully consolidated, while 62.92 percent – equivalent to 120,636 out of 191,730 PUVs – remain unconsolidated. In Metro Manila, where traditional jeepneys are most prevalent, majority of jeepneys also have not yet consolidated, with figures ranging from 53.09 percent to 55.81 percent, which translates to between 22,391 and 23,536 of the total 42,177 jeepneys in the region. The issues earlier surfaced with the transition to e-jeepneys would be a

13 See Appendix C for the breakdown of the actual consolidation rate in the PUVMP/PTMP.

major concern for operators in the coming years, particularly as the push for the shift to EVs in the PUV transport under the PUVMP/PTMP is fully implemented.

On the other hand, operators who have already joined the PUVMP/PTMP now face a different but equally pressing concern. A recent study by Dimalanta and Morales (2024) indicates that the impending shift to e-jeepneys is already generating anxiety among operators, particularly those who have already invested in Euro-4 compliant "modern" PUVs under the PUV "modernization" program. These operators are now confronted with the possibility of incurring additional debt and facing further uncertainty as the government accelerates the transition toward ePUVs. For consolidated PUV operators - numbering 71,094 nationwide (Failon 2025; Pascual 2025) - the possibility of being required to purchase a completely new fleet of vehicles before they have even recovered their prior investments, introduces yet another considerable burden. Although CREVI of EVIDA outline a "gradual" transition up to 2040, the concerns of the operators are not entirely unfounded as the PUVMP/PTMP may outright push the operators to shift to EVs sooner than expected.

Persistent structural issues

Because the transition to ePUVs is being pursued within the PUVMP/PTMP, there is a high likelihood that the structural issues that have emerged during the first eight years of its implementation will still be felt - lest the overhaul of the program will be undertaken by the DOTr.

These recurring issues include the forced relinquishment of individual franchises of the operators; the mandatory consolidation into a single transport service entity (cooperative or corporation); the absence of training and capacity-building for operators undergoing consolidation; government neglect of issues within the transport service entities (despite these having been formed forcible and under coercive circumstances by the PUVMP/PTMP implementers); potential openings for takeover of routes by larger transport service entities backed by monied individual or big private corporations; and piece-meal and out-of-touch livelihood programs for the displaced operators.

A CALL FOR GOVERNMENT ACCOUNTABILITY IN THE EV TRANSITION

The critiques outlined in the preceding section demonstrate that the electrification of PUV transport – implemented through the EVIDA and integrated into the PUVMP/PTMP – while promoted as an environmentally sustainable transport innovation, remains misaligned with the socioeconomic realities of small JODs who form the backbone of public transport in the Philippines.

The transition to EVs within the PUV sector demands prohibitively high acquisition costs. Amortization payments for e-jeepneys often exceed or significantly diminish the already precarious and low earnings of JODs, which are also highly volatile due to fluctuations in fuel prices. This leads to the further widening income deficits that place operators in extremely vulnerable financial positions, threatening not only their ability to repay loans for the e-jeepneys but also to meet basic household needs. Although the government provides an equity subsidy of up to Php 280,000 per e-jeepney unit, this assistance is inconsistent, inadequate, and contingent upon annual budget appropriations, making it an unreliable source of financial support in EV acquisition. Moreover, most other government interventions are non-fiscal and fail to meaningfully ease the economic pressures on small operators. As established already, because the electrification of PUVs is nested within the PUVMP/PTMP, it reproduces the same structural issues of the "modernization" program: coercive consolidation into transport cooperatives or corporations, the revocation of individual franchises, the lack of capacity-building for cooperativization of JODs, and the risk of route displacement by larger, well-funded entities.

These issues greatly affect two groups of PUV operators: those who have yet to consolidate under the PUVMP/PTMP and those who have already entered the program. For unconsolidated operators, many of whom have resisted the PUVMP/PTMP due to the high costs and rigid requirements, the shift to ePUVs presents a looming threat to their livelihoods. These operators face the added challenge of having to invest in ePUVs despite being unable to comply with the earlier requirements of the program, including the financial responsibilities for the acquisition of Euro 4-compliant "modern" PUVs, further entrenching their marginalization. Meanwhile, PUV operators who have already

consolidated under the PUVMP/PTMP also face a serious issue. Having already invested in Euro 4-compliant ”modern” PUVs, they fear that these vehicles will soon be rendered obsolete by the upcoming push for PUV electrification.

The Philippine government must adopt a more equitable, participatory, and context-responsive approach to the electrification of the PUV transport sector. We forward the following short to medium term recommendations[14] to the DOTr, DOE, and national transport agencies concerned with the PUVMP and EVIDA, including the Office of the President:

1. Immediate suspension and overhaul of the PUVMP/PTMP

The PUVMP/PTMP, in its current form, has been described by the DOTr Secretary Vince Dizon as “not viable” and “riddled with problems,” citing the alarming number of consolidated operators who can no longer meet loan obligations for Euro 4-compliant “modern” PUVs under the program (GMA News 2025). This was said by Sec. Dizon during his confirmation hearing before the Committee of Appointments:

> *Given the present state of the modernization and kung itutuloy-tuloy lang po, tingin ko po yung fact na hindi na nakakabayad ng utang ang karamihan sa mga bumili ng bagong mga sasakyan, eh that is a clear sign that it is not viable in its present state* (Given the present state of the modernization program, if it is continued as is, the fact that most operators are already unable to pay the loans on their newly acquired vehicles is a clear indication that the program is a clear sign that it is not viable in its present state) (Tulad 2025; GMA News 2025).

Diving deeper into the problems surrounding the PUVMP/PTMP, Senator Grace Poe said during the same hearing that the LBP and DBP have jointly released approximately Php 15.3 billion in loans for the PUVMP/PTMP. However, more than Php 5.1 billion of this amount remains unpaid with

14 These recommendations draw insights from Mendoza (2021), Program on Alternative Development (2023), and Atienza (2025a, 2025b).

the operators struggling to meet the financial responsibilities tied in the program. She further added that both GFIs (government financial institutions) LBP and DBP have now suspended the issuance of new loans for the PUVMP/PTMP, which Sec. Dizon also confirmed (Tulad 2025; DZMM Radyo Patrol 630 2025; Garner 2025).

In addition, Presidential Communications Office Undersecretary and Malacañang Press Officer Claire Castro confirmed that President Ferdinand Marcos Jr. agrees with the views of DOTr Sec. Dizon regarding the PUVMP/PTMP being "not viable" and "pilit" (forced) (Bajo 2025).

Given the present situation of the PUVMP/PTMP implementation, government intervention must begin with the suspension of the current PUVMP/PTMP and the initiation of a comprehensive overhaul based on meaningful dialogue with stakeholders - most especially the small JODs, who remain the most vulnerable in the public transport sector. The program must be restructured to reflect their realities. A key principle in this restructuring must be that the consolidation and the formation of transport cooperatives or corporations should not be imposed coercively. Instead, the program should allow for alternative organizational models that are more financially and operationally feasible for small operators.

In addition, the program's embedded financial support mechanisms must be significantly strengthened. Government subsidies should be increased to a level that ensures JODs are not forced to sacrifice their basic household needs simply to meet the financial obligations associated with the modernization or electrification of PUVs. A just transition demands that modernization efforts do not exacerbate the vulnerability of those working in the public transport sector.

2. Enact safeguards for consolidated operators

It is also essential that the government consider the plight of another highly vulnerable group - those small operators who have already entered the PUVMP/PTMP and have invested in Euro 4-compliant "modern" PUVs under the current form of the "modernization" program. In the event of halting and undertaking reforms to the PUVMP/PTMP, the government must take accountability for these operators and hold consultations

with them to plan and implement safeguards that prevent further marginalization of these operators. The government must take an active role in ensuring that both groups in the PUV transport sector - those who have consolidated and those who have resisted consolidation - are protected, and that no intra-sectoral conflict is exacerbated by a redesign of the PUVMP/PTMP.

3. Relax requirements for electrification, support rehabilitation of jeepneys, and investment in local manufacturing

In relation to electrification of PUVs, the government must reconsider its push for electrification in the PUV sector. The socio-economic realities - particularly the financial difficulties and constraints faced by operators - makes full EV adoption inaccessible and exclusionary. Rather than enforcing a still costly and premature shift to EVs, a more just transition must be prioritized. Such a transition should still meet the emission standards set under the Clean Air Act but must not rely solely on full electrification. Regulations must be relaxed to allow for the rehabilitation and upgrading of traditional jeepneys as long as they meet the minimum emissions standards.

Moreover, the government must shift away from reliance on importation of ePUVs and instead invest in the development of a local manufacturing base. Public investment could be directed towards local manufacturers to encourage the design and production of low-emission PUVs, including rehabilitated/upgraded jeepneys and/or e-jeepneys.

4. Reinstate the five-year validity of franchises for PUV operators

Given the persistent and overlapping issues surrounding the implementation of the PUVMP/PTMP which have resulted into a more vulnerable and marginalized position for PUV operators, the government must reinstate the five-year validity of franchises (or Certificates of Public Convenience) which authorize them to provide public transport service. This is critical not only to ensure the continuity and stability of public transportation services but also to mitigate the heightened vulnerability

and insecurity faced by operators during this period of uncertainty. Restoring the five-year franchise validity would provide a necessary buffer and a measure of protection for operators as broader reforms to modernization and electrification are reviewed and restructured.

Unless overhauled, the current PUV electrification policy risks deepening the very injustices the PUVMP/PTMP has been greatly criticized for. Both consolidated and unconsolidated PUV operators remain trapped in a policy environment that prioritizes environmental and technological shifts while entirely disregarding social equity. A just transition in the transport sector must center the needs and voices of the small-scale operators, ensure affordability, remove the coercive and punitive forced consolidation component, and provide meaningful support mechanisms.

The burden of ”modernization” must not fall on those least able to bear it. Otherwise, the promise of electrification will become yet another “green initiative” that further entrenches, rather than alleviate the long-standing injustices experienced by informal transport workers in the jeepney sector.

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APPENDICES

Appendix A. Roles of actors in the EVIDA implementation

ACTORS INVOLVED	ROLE/S
Department of Energy	■ Lead the implementation of EVIDA ■ Promulgate standards and enforce compliance on the use, operations, and maintenance of electric vehicle charging stations (EVCS) and related equipment, including accreditation of EVCS providers ■ Oversee distribution utilities (DUs) to submit their respective charging infrastructure development plans
Electric vehicle charging station (EVCS) providers and Distribution Utility (DUs)	■ EVCS providers are entities accredited by the DOE to sell, construct, install, maintain, own, or operate charging stations for a fee. (The Department of Public Works and Highways (DPWH) is tasked with establishing guidelines for the construction or installation of the EVCS). ■ On the other hand, DUs may be electric cooperatives, private corporations, or government-owned and controlled corporations, or local government units which have authority to operate an electric distribution system. ■ DUs are responsible for preparing the EVCS infrastructure development plans. ■ EVCS providers are responsible for paying DUs for the electricity consumption of their charging stations.
Energy Regulatory Commission (attached agency of the DOE)	■ Regulate the rates charged by DUs on all EVCS ■ Promulgate standards for the source electricity ng EVCS
Department of Transportation	■ Promulgate standards on the use, operations, inspection, and registration of EVs for private use, as well as franchising of EVs used for public transportation ■ Mandate the inclusion of green routes, which are specific routes for EVs, in the public transport route plans crafted by LGUs and the DOTr ■ Facilitate the deployment of EVs in the PUVMP/PTMP, and the gradual phase-in of ePUVs (electric public utility vehicles) ■ Conduct capacity-building activities for PUV operators, drivers, and technicians affected by the phase-in of ePUVs

ACTORS INVOLVED	ROLE/S
Department of Trade and Industry	■ Formulate and revise standards for the EV industry to ensure consumer protection and trade facilitation ■ Regulate the quality and safety of EV parts and components ■ Develop and update the manufacturing component and the human resource development component of the CREVI
Department of Science and Technology	■ Develop and update the research and development component of the CREVI
Department of Environment and Natural Resources	■ Promulgate standards on the recycling and disposal of EVs, EVCS, and related parts and components; as well as handling of wastes involving EVs
Local Government Units	■ Integrate EVs into the public transportation system through their inclusion of 'green routes' in their local public transport route plans ■ Regulate the EVCS infrastructure in their localities ■ Exercise jurisdiction over the management of EV traffic within their respective localities

Note: Collated by the authors from RA No. 11697, and its implementing rules and regulations (IRR) drafted by the DOE and DOTr (2022)

Appendix B. Number of EVs per vehicle segment by 2040: BAU Scenario vs. CE Scenario

BUSINESS-AS-USUAL SCENARIO		CLEAN ENERGY SCENARIO	
Vehicle type	No. of EVs	Vehicle type	No. of EVs
UV	597,890	UV	2,049,000
Tricycle	211,900	Tricycle	904,000
Motorcycle	931,030	Motorcycle	3,349,000
Bus	3,600	Bus	5,300
Total	**1,744,420**	**Total**	**6,307,300**

Note: Figures were derived by the authors from the CREVI of DOE and DOTr (2023).

Appendix C. Actual rate of PUVMP/PTMP consolidation and non-consolidation (Nationwide)

	PERCENTAGE	NUMBER OF PUVS
Consolidated PUVs	37.08%	71,094
Unconsolidated PUVs	62.92%	120,636
Total	**-**	**191,730**

Note: Computed by the authors from the figures from Failon (2025) and Pascual (2025).

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