

TAX CREDITS VS. UPFRONT SUBSIDIES

The US federal government, for example, offers income tax credits ranging from \$2,500 to \$7,500 for the purchase of a new EV⁷, which are realized by buyers at the end of the tax year. In contrast, India's FAME-II scheme offers purchase subsidies in the form of an upfront reduction in the purchase price to be reimbursed to OEMs of eligible vehicle models by the Gov.

Consumer research has found that subsidies on EV purchases are most effective when delivered at the time of purchase.

Which states are using it?

- Delhi and Maharashtra provide purchase subsidies across multiple small vehicle segments for eligible EV models and a defined number of EVs in each segment.
- Bihar offers purchase subsidies for the first 100,000 vehicles manufactured within the state, including strong hybrids.
- Kerala offers a purchase subsidy on electric three-wheelers, while Tamil Nadu promises an undefined subsidy amount for state transport undertakings (STUs) to purchase e-buses.

While Maharashtra's and Kerala's subsidies are based on the vehicle's purchase price, Delhi's and Bihar's subsidies are provided on the battery size of vehicles.

Further, for buyers in Delhi who purchase EVs (without batteries) fitted out with a battery swapping model, 50% of the subsidy amount is provided to the registered owners and the remaining 50% to the energy operators to defray deposit costs of the battery swapping service. In Bihar, an additional incentive of INR 7,000/kWh is suggested for e-2Ws and e-3Ws using lithium-ion batteries instead of the conventional lead-acid batteries. These are innovative approaches for subsidy design, which structure and deliver the subsidy where it can have a greater impact.

⁷ <https://afdc.energy.gov/laws/409>

Table 2: Purchase subsidies for EV segments

PURCHASE SUBSIDIES FOR EV						
	Segment	2W	3W	Cars	Light Carriers	Buses
Delhi	Subsidy (in INR)	5,000/ kWh	30,000	10,000/ kWh	30,000	As appropriate
	Max. amount (in INR)	30,000	N/A	150,000	N/A	N/A
	No. of vehicles	N/A	N/A	1,000	N/A	N/A
Bihar	Subsidy (in INR)	10,000/ kWh	10,000/ kWh	10,000/ kWh	Not defined	10,000/ kWh
	Approx. amount (in INR)	20,000	50,000	150,000		2.5 million
	No. of vehicles	24,000	70,000	4,000		1,000
Maharashtra	Subsidy	15% on BP*	15% on BP*	15% on BP*	Not defined	10% on BP*
	Max. amount (in INR)	5,000	12,000	100,000		2 million
	No. of vehicles	70,000	20,000	10,000		1,000
Kerala	Subsidy	N/A	30,000	N/A	N/A	N/A
	Subsidy period		1 year			

*Base price of the vehicle

Tax exemptions

The motor vehicle tax, or road tax as it is commonly known, is a state-level tax that varies widely from one state to another. It is structured differently for transport and non-transport vehicles, typically levied as a periodic (half-yearly or annual) road tax on transport vehicles and as a one-time lifetime tax on non-transport vehicles. It is a prime fiscal instrument in the state government toolbox, and therefore unsurprising that all state EV policies offer road tax exemptions or reductions for EV buyers.

Which states are using it?

- Delhi, Maharashtra, Karnataka, Kerala, Bihar, Uttarakhand, Tamil Nadu, Andhra Pradesh and Punjab offer 100% road tax exemption for newly-purchased EVs, for varying durations of time. Longer tax exemption periods are expected to benefit commercial vehicles, which pay road tax on an annual or semi-annual basis.
- Telangana and Madhya Pradesh offer road tax exemption for a fixed number of vehicles in each vehicle segment.
- Uttar Pradesh provides a road tax exemption for the first 100,000 buyers of locally manufactured EVs, 100% exemption for e-2Ws and a 75% reduction for other EVs.
- All states except Punjab have offered an exemption on registration fees for EVs. Despite the road tax exemption mandated in EV policies, most states have yet to implement the tax waiver. Currently Karnataka and Madhya Pradesh levy a reduced road tax of 4% on EVs, while Kerala has slashed its road tax rates by half for EVs.

Access to financing

Access to financing for EVs remains to be solved. The uncertainty of residual value, risk of technological obsolescence, and lack of historical data make it difficult for financing institutions to assess the risk profile for EV lending, especially for commercial vehicles. This has led to fewer banks offering loans for EVs, often with higher down payments, higher interest rates, and for shorter loan terms than ICE vehicles.

With a significant share of India's vehicle sales dependent on debt financing, accessible and favorable EV finance will be integral to scaling adoption and reducing ownership costs. Policy-supported mechanisms such as down payment subsidies, interest subventions, low-interest loans, and extended repayment periods can provide more affordable financing for EV buyers.

Which states are using it?

- Delhi offers an interest subvention of 5% for the commercial e-3W, e-cart, and e-carrier segments, for loans availed from the Delhi Finance Corporation (DFC) and other empaneled finance providers.
- Bihar offers an interest subvention of 10% for electric light freight vehicles and buses, extended to other electric vehicle segments for vehicles manufactured in the state.
- Telangana's existing state self-employment schemes are to be extended to provide financial assistance to purchase EVs for commercial purposes. For e-3Ws, Telangana will encourage financing institutions to provide a hire purchase scheme at discounted interest rates.

SBI GREEN CAR LOAN

Currently the only EV-specific loan scheme floated by a commercial bank in India, the SBI green car loan, offers a concession of 20 basis points on the rate of interest applicable for an e-car loan.

More schemes offering accessible financing are necessary, especially for commercial fleet segments such as electric two wheelers, e-autos and e-taxis.

Figure 4: Retrofitted e-autorickshaw in India



Source: <https://blog.gaadikey.com/mahindra-electric-baghirathi-group-jointly-power-karnatakas-ev-dream>

Scrapping and retrofit incentives

Scrapping and retrofit incentives aim to remove high-polluting, older ICE vehicles from roads while accelerating the existing vehicle fleet's transition to EVs. This is done by offering financial incentives for retrofitting ICE vehicles to convert them into EVs or for scrapping eligible vehicles and purchasing EVs.

SCRAPPING SCHEME IN FINLAND

Finland runs a scrapping scheme periodically, in which the government offers up to EUR 2,000 (approx. INR 178,000) in bonuses for scrapping old ICE vehicles and purchasing new EVs or other clean fuel vehicles.

The repeated provision of the scrapping incentive every couple of years enables a continuous transition to low-carbon transport, as older, polluting vehicles are phased out and replaced by significantly cleaner vehicles.

⁸ <https://www.lvm.fi/en/-/facts-on-passenger-car-scrapping-premium-and-purchase-support-for-gas-fuelled-trucks-into-force-1244949#:~:text=A%20scrapping%20premium%20of%20EUR%20%2C000%20will%20be%20awarded%20for,emissions%20of%20120%20grams%20per>

Which states are using it?

- Delhi offers a scrapping incentive of INR 5,000 and INR 7,500 for purchase of eligible electric two-wheelers and three-wheelers respectively, which can be availed upon proof of scrapping and de-registering old polluting ICE vehicles. The incentive is contingent on a matching contribution from the dealer or OEM.
- Punjab aims to notify a detailed scrapping policy for old vehicles in which EV adoption will be incentivized through transition credits.
- Telangana offers a retrofitting incentive at 15% of the retrofitting cost, capped at INR 15,000 per vehicle, for 5,000 e-autos.

Scrapping incentives are effective in substituting ICE vehicles with EVs, without a net addition of vehicles on the road. As the price difference between ICE vehicles and EVs shrinks, purchase subsidies can be slowly tapered off, with a proportional increase in scrapping incentives.

Taken together, the different financial incentives can add up to a significant offset on EV purchase costs, as shown in Table 3

Table 3: Comparison of purchase incentives in different states (in INR)

e-2W price of ₹ 135,000	Delhi	Mumbai	Bangalore
Purchase Subsidy	₹ 12,000	₹ 5,000	₹ 0
Road Tax*	5,400	8,100	5,400
Scrapping Incentive	10,000	0	0
TOTAL INCENTIVES	₹ 27,400	₹ 13,100	₹ 5,400

e-3W price of ₹ 273,000	Delhi	Mumbai	Bangalore
Purchase Subsidy	₹ 30,000	₹ 12,000	₹ 0
Road Tax**	1995	6000	2500
Scrapping Incentive	15,000	0	0
TOTAL INCENTIVES	₹ 46,995	₹ 18,000	₹ 2,500

e-4W price of ₹ 15,00,000	Delhi	Mumbai	Bangalore
Purchase Subsidy	₹ 150,000	₹ 100,000	₹ 0
Road Tax	187,375	164,890	254,830
TOTAL INCENTIVES	₹ 337,375	₹ 264,890	₹ 254,830

*Currently e-2Ws are charged 4% road tax in Delhi and Karnataka. Maharashtra charges 6%.

**3W Road tax is collected annually in Delhi and Maharashtra. Amount indicated is the cumulative road tax savings over the policy period. Karnataka collects lifetime tax.