



The role for incentives to stimulate market adoption of zero-emission MHDVs

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Drive to Zero Thematic Deep Dive Session 4

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- Regulations

- Vehicle efficiency / GHG standards
- Emissions standards
- ZEV mandates (OEM sales requirements)
- Fleet purchase requirements

- Taxes

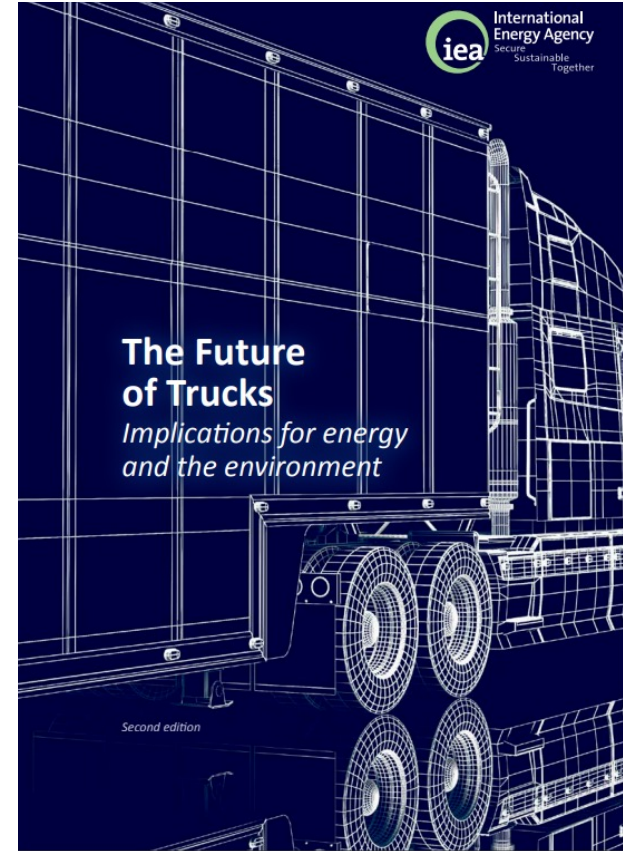
- Fuel taxes (but also, electricity prices that reflect load)
- Road tolls

- Incentives

- Vehicle purchase incentives, tax exemptions, vouchers
- HDV charging corridors

- Infrastructure

- Infrastructure roadmaps and mandates
- Chargers, but also transmission lines, and substations (also electric road systems, battery swapping)



When are incentives the right tool for the job?

- First, ensure that regulations and fiscal policies are already well aligned with societal objectives and environmental ambitions
- If there's a need to accelerate market adoption, then there's a strong case for incentives

Metric	Shares by	2021		2030							
		buses	trucks	buses	trucks	Vehicle type	2025	2030	2035	2040	2045
"New Normal" (Share of ZEVs)	Sales	13.8%	0.3%	60%							
	Stock	4.4%	0.1%	25-30%							
"Affordable" (purchase price gap / TCO parity)	TCO parity for urban transit	0-50% TCO gap (depending on operations)	TCO parity for intercity buses								
					Bus (>3.5 tonnes)	7%-30%	75%-90%	90%-100%	100%	100%	
					Medium truck (3.5 to 16 tonnes)	3%-12%	40%-50%	75%-90%	100%	100%	
					Heavy truck (>16 tonnes)	2%-9%	30%-41%	60%-75%	90%-100%	100%	
					All HDVs (sales-weighted average per country)	3%-12%	40%-56%	69%-83%	94%-100%	100%	
				All HDVs (sales-weighted average for all ZEVTC members)	4%	45%	76%	97%	100%		

- Tax exemptions preferable to purchase subsidies
- Exemptions to e.g. road tolls also quite a strong solution
- In any case, clear but somewhat flexible timetable for ramping down subsidies / exemptions is needed.

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