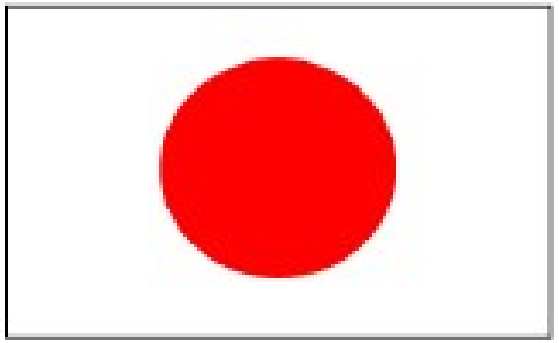
Explanation for Discussion Point on Public Transportation



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Transportation Sector Initiative and Goals at APAEC

Enhance fuel economies in the transport sector and promote electrification

1. Strengthen the regional fuel economies of light and heavy-duty vehicles
2. Support fuel switching policies, incentives and initiatives to advance low-carbon vehicles, including electrification

→Proposal：Review infrastructure investments for charging facilities to make them suitable for BEVs equipped with all-solid-state batteries. Similar to Japan, numerous 100kW-class quick chargers will be deployed.

3. Raise awareness of transport system efficiency policies in the public transport, aviation and maritime sectors

→Proposal：Regarding public transportation, you will consider a subsidy program for BEVs equipped with all-solid-state batteries, referencing initiatives for taxis, buses, and light-duty and heavy-duty trucks in Tokyo. (We will cover aviation and maritime starting next year.)

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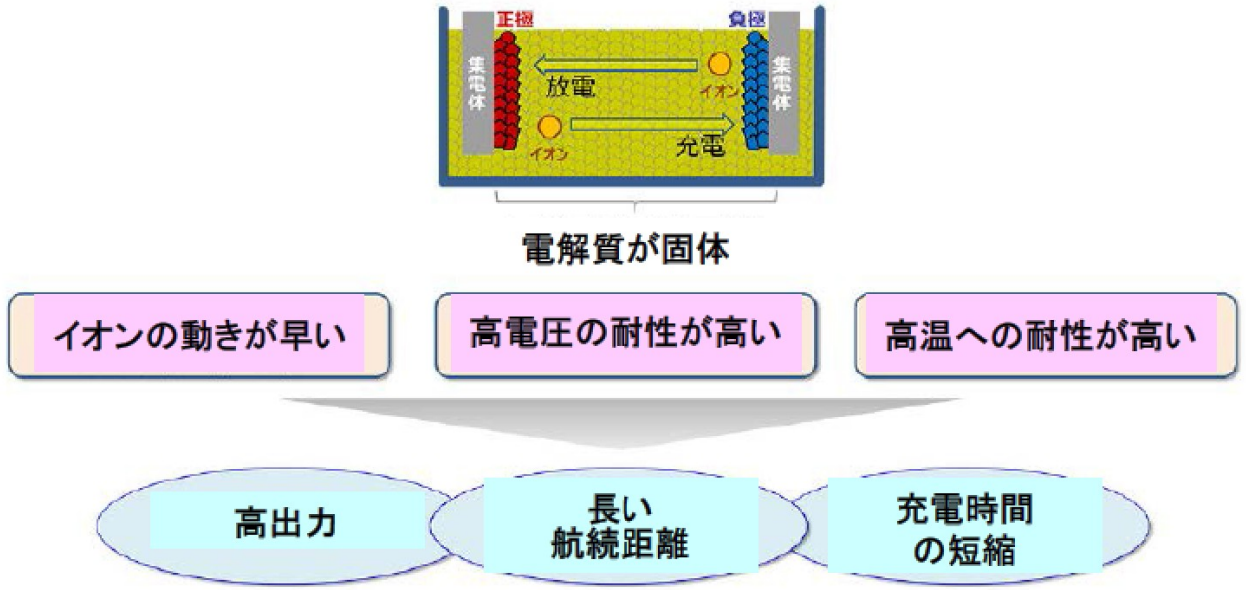
Source：ACE Website (APAEC 2026-2030)

2. Solving current battery issues through all-solid-state battery technology

◆ Commercialization of All-Solid-State batteries (around FY2027-FY2028):
A 10-minute charge enable driving for 1,000km.
In Japan, Toyota・Nissan・Honda etc., have completed demonstration tests and are entering the pro duction preparation stage.

【Verification results】
・Solid electrolyte→No risk of electrolyte leakage, and no fire hazard
・Fast ion mobility and high voltage tolerance→Short charging time (Eliminating charging congestion)
・High resistance to high temperature→No cooling is required, making it easier to achieve compactness and light weight.



Source：TOYOTA Website

2. Infrastructure investment reduction effects from All-Solid-State battery adoption

◆ By switching from lithium-ion batteries to all-solid-state batteries, infrastructure investment will be reduced to 1/30.
→Proposal：When introducing charging infrastructure in ASEAN, it is based on the premise of vehicles equipped with Japanese all-solid state batteries.

	Lithium-ion battery	All-Solid-State battery	Judgment
Infrastructure Investment reduction	・Quick charger：350kW-class (50 million yen) ・A 30-minute charge enable a 500km range.	・Quick charger：100kW-class (10 million yen) ・A 10-minute charge enable driving for 1,000km	・Quick charger cost：1/5 ・Number of quick charger：1/6 ・total：1/30
Number of Chargeable BEVs charging (Enable driving for 1,000km)	1vehicle/unit・hour	6vehicles/unit・hour	・Productivity：6 times
Side effect	・Batteries with poor quality control may leak electrolyte or short circuit, posing a fire hazard. ・Battery performance may decrease In extremely hot or cold climates.	・Since the electrolyte is solid, there is no risk of leakage or short circuit. ・The battery operates anywhere, from extreme heat to cold climate.	・Safety will be dramatically improved.

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Source：Made by ECCJ

3．Efforto promote BEV equiped with all-solid-state batteries adoption：Selection of priority areas

- **Why not replace them with BEVs in ASEAN as well, formulate a demonstration plan, and identify challenges in advance？**
  Proposal：Select key areas and typical logistics routes, and deploy charging facilities along the main routes.

	BEV Cabs 	BEV Buses 	BEV light-duty trucks 	BEV heavy-duty trucks ―	total
2025年9月	7 units	―	―	―	―
2025年12月	100 units	―	―	―	―
2025年3月	200 units	―	―	―	―
FY2028	450 units	200 units	2,000 units	250 units	2,900 units
FY2030	600 units	300 units	3,600 units	500 units	5,000 unsit
FY2035	？units	？units	？units	？units	10,000 units
	Revised EE&C Act @FY2030	(CO2：▲30%) (xEV：40%)	Including heavy-duty trucks	Sales：50,000 units (20～30%)	Sales：5,000 units (tentative)

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Source：Decided through group discussion

３．BEV(タクシー・バス・トラック)に対するアセアンの補助金制度

- **補助金制度の考え方：ASEAN・各国の補助金を用いて、買い替え時に同等仕様のLPG/ディーゼル車と同額(差額＝0)で、BEV(タクシー・バス・トラック)を導入できるようにする。**
- **参考事例として、各国の実情に合わせて重点地域を選んだ上で、BEV(乗用車)やBEV(バイク)にも適用し、公共交通機関との差異や導入のしやすさを評価し、各国ごとの優先度判断につなげる。**

	BEVタクシー	BEVバス	BEV小型トラック	BEV大型トラック	BEV(乗用車/バイク)
ASEAN	1/3(275万円/台)	1/2(5,455万円/台)	差額×3/4	差額×3/4	---
各国(基本補助)	上限370万円/台	上限5,000万円/台	**上限1,300万円/台**	**上限5,600万円/台**	上限1,100万円/台
各国(上乗補助)	上限240万円/台	上限2,000万円/台	上限3,400万円/台	**上限11,500万円/台**	上限1,100万円/台
車両価格	827万円/台	10,910万円/台	4,088万円/台	17,453万円/台	---
充電費(地域)	700円/kg(差額×3/4)				
充電費(各国)	上限130万円/年	**H2ステーションを通して支援**	上限900万円/年	上限2,880万円/年	上限1,200万円/年
充電費	？		？	？	？

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Source：Decided through group discussion

（参考）比較対象車とxEVの車両販売価格

◆ 車両販売価格は需要との関係で決まるので、あくまでも参考情報として示すが、BEVは比較対象車の約2～3倍程度、FCEVは比較対象車の約3～4倍程度と考えられる。

	Cabs	Buses	Light-duty trucks	Heavy-duty trucks
Conventional vehicles	TOYOTA・Japan Taxi 3.45 million yen 	Isuzu・Erga 27.6 million yen 	Isuzu・Elf 5.88 million yen 	HINO・Profia 43.63 million yen
BEVs	NISSAN・Leaf 5.18 million yen 	Isuzu・Erga EV 59.8 million yen 	Mitsubishi Fuso・e-canter 13.7 million yen 	Under development Price TBD ---
FCEVs	TOYOTA・Crown 8.27 million yen 	TOYOTA・SORA 109.1 million yen 	TOYOTA・CJPT 40.88 million yen 	HINO・Profia Z 174.5 million yen 

→ECCJ will investigate and notify the timing and pricing for the launch of all-solid-state battery vehicles.

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Source：Make by ECCJ

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