

EV Update in Thailand

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Energy Talk #14 Series: EV Charging Ecosystem in Indonesia

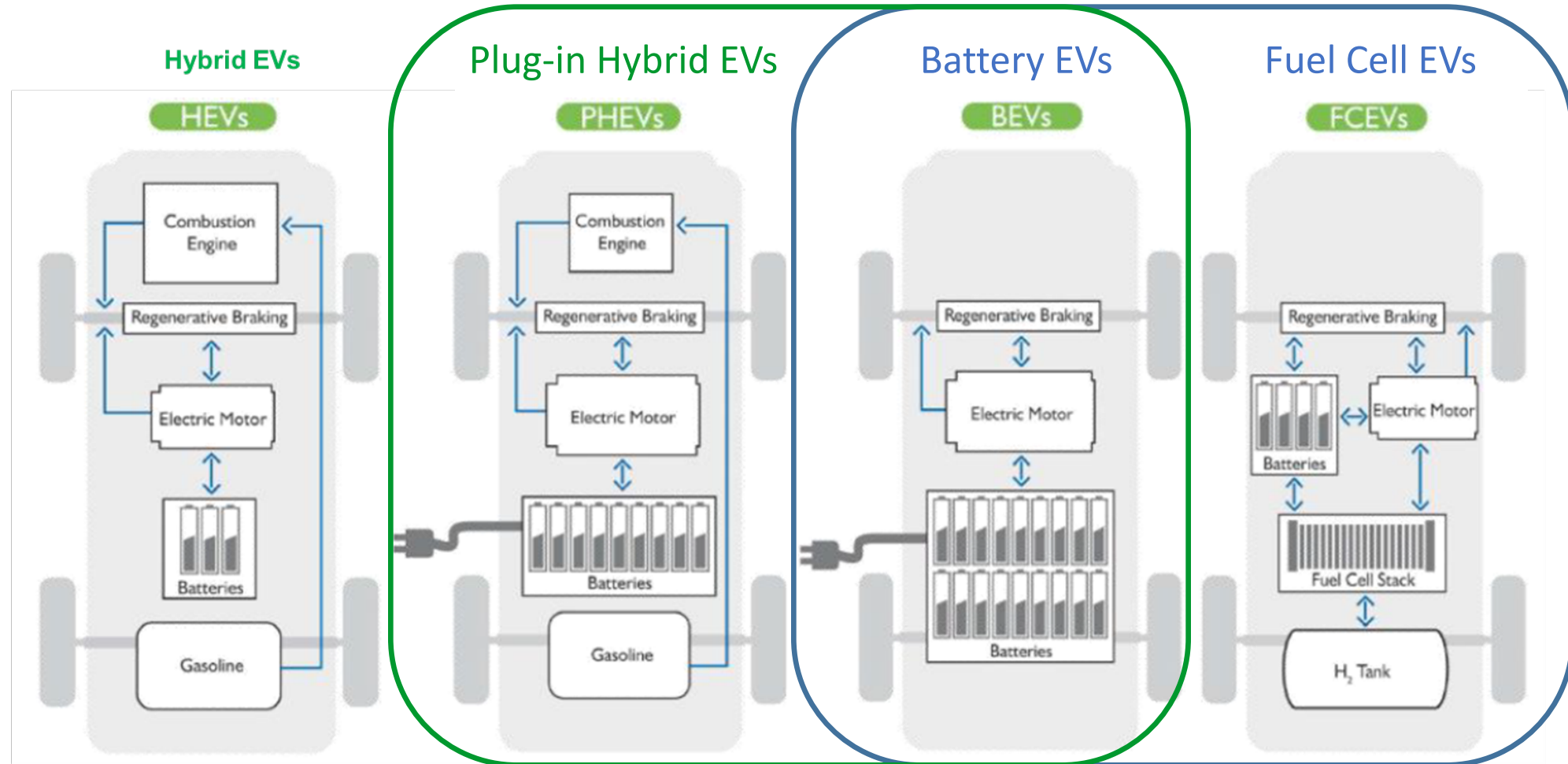
Hosted by

Prakarsa Jaringan Cerdas Indonesia (PJCI) & Asia Pacific Urban Energy Association (APUEA) &

P.T. Pamerindo Indonesia

Electric Vehicle Technology

Type of Electric Vehicles



Plug-in EV

Zero Emission Vehicle

Overall National EV Policy

National Electric Vehicle Policy Committee

Chaired by Deputy Prime Minister

Official order by office of Prime Minister on 7 Feb 2020



Meeting on 12 May 2021

Key Drivers

- Air Pollution Reduction
- Greenhouse Gases Reduction
- New Industry Creation

🎯 Visions : Thailand becomes the global production and supplier hub for electric vehicles and automotive parts.

Overall National EV Policy

🎯 **Visions : Thailand will become the global production and supplier hub for electric vehicles and automotive parts.**

Goal at 2035 : 🇹🇭 Thailand towards 100% Zero Emission Vehicle (ZEV) Sale by 2035



30@30 Target at 2030

Electric Passenger & Pickup Car

Fast Charging

: 12,000 Outlets

Annual ZEV sale

: 440,000 units (50% of Total Sale)

Annual ZEV production

: 725,000 units (30% of Total Production)

Bus & Truck

Annual ZEV sale

: 33,000 units (35% of Total Sale)

Annual ZEV production

: 34,000 units (50% of Total Production)

Electric Motorcycle

Swapping Station

: 1,450 Stations

Annual ZEV sale

: 650,000 units (40% of Total Sale)

Annual ZEV production

: 675,000 units (30% of Total Production)

Electric Tuk Tuk

Annual ZEV sale

: 2,200 units (100% of Total Sale)

Annual ZEV production

: 2,200 units (100% of Total Production)



Overall National EV Policy

National Incentive Schemes

Local Production Promotion

- EV Investment Scheme by Board of Investment
- *Reduce Import Tax/ Excise Tax for vehicles and auto parts*

Infrastructure Preparation

- Special electricity price for public charging operators
- *Planning public charging station locations (under planning)*

Usage Promotion

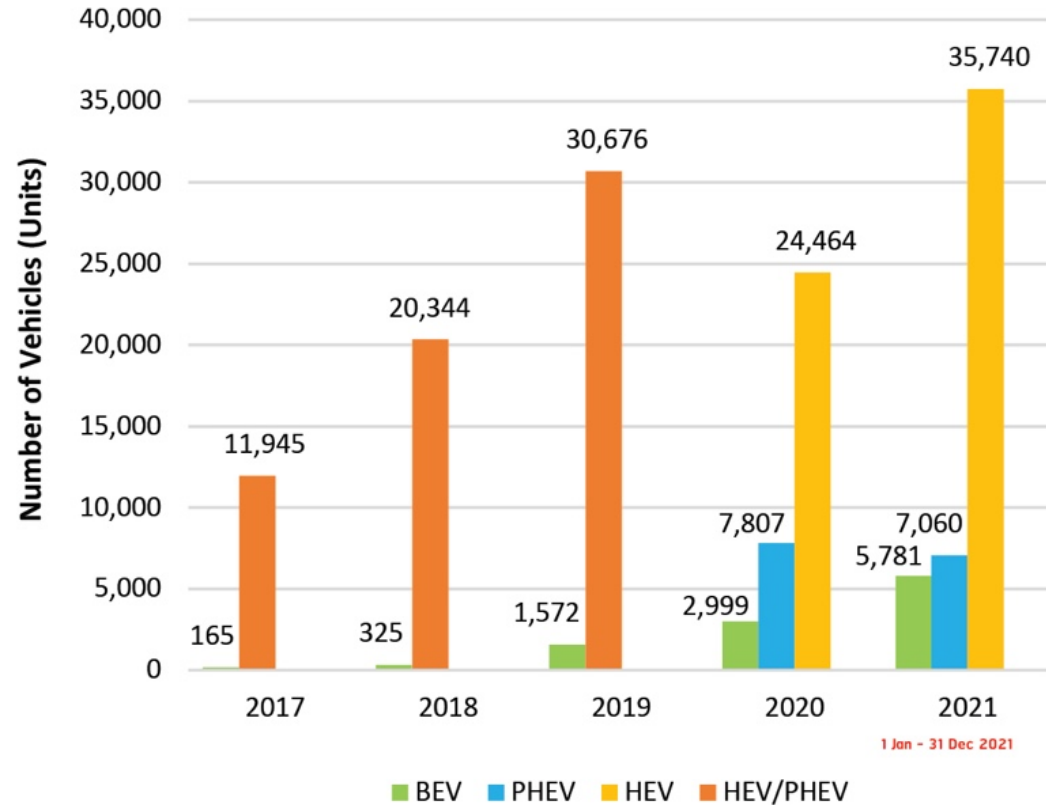
- Cheaper annual vehicle registration fee
- Government EV fleet policy
- *User subsidy*

Current EV Status in Thailand

xEV New Registration

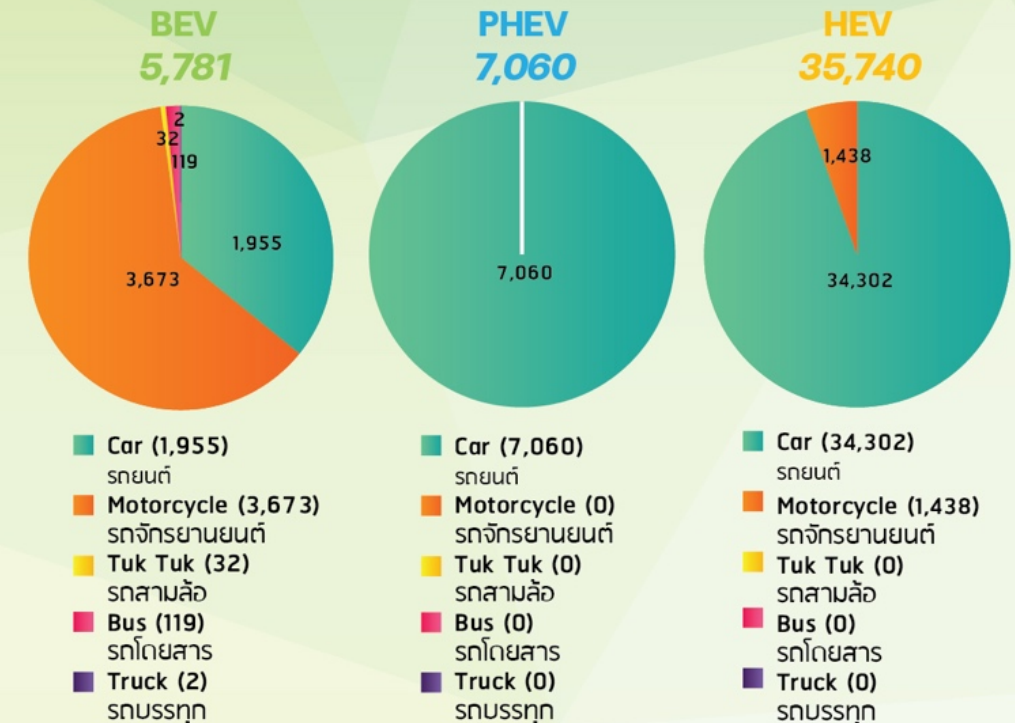
New Number of xEV Registration
จำนวนยานยนต์ไฟฟ้าที่จดทะเบียนใหม่

Between 2017-2021
ระหว่างปี 2560-2564



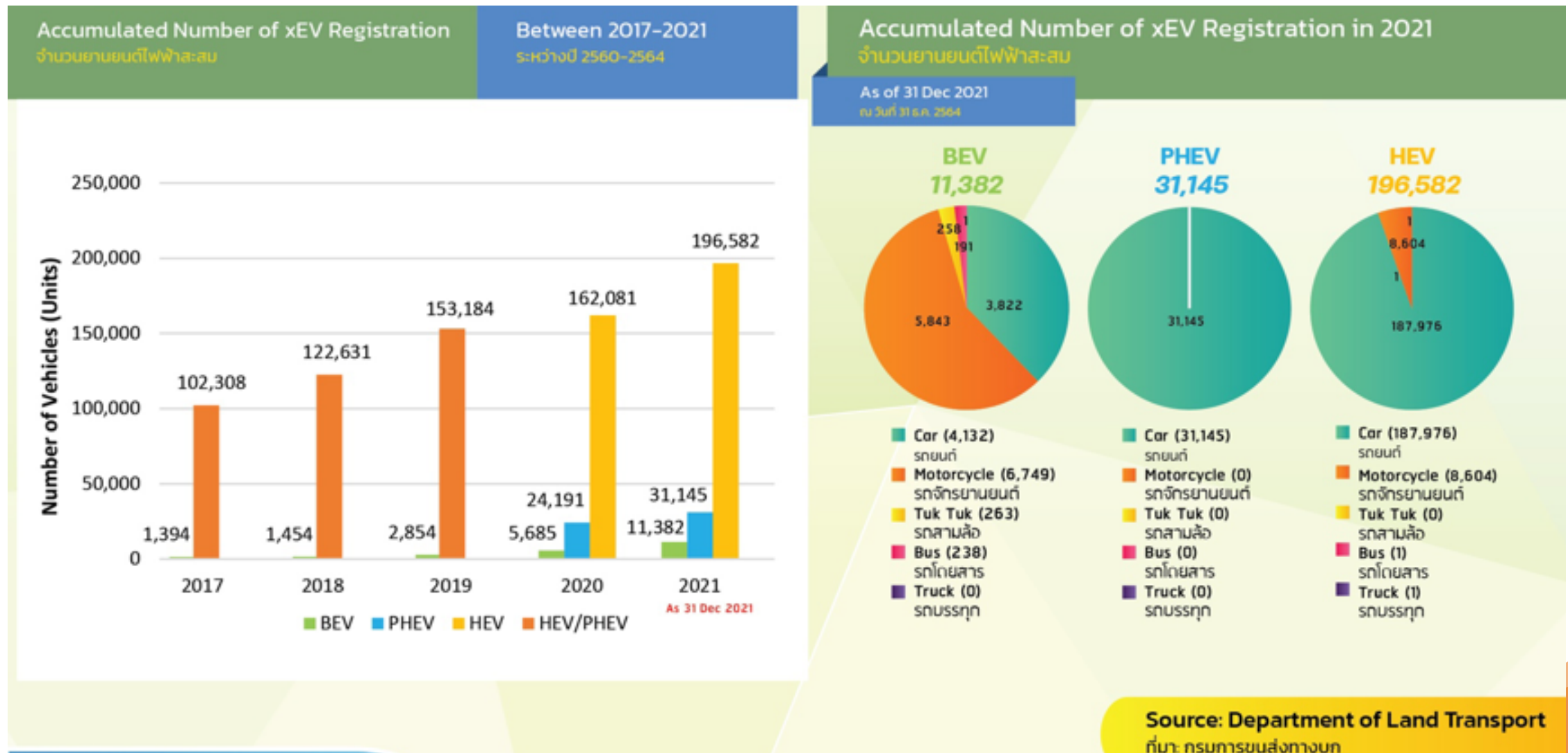
New Number of xEV Registration in 2021
จำนวนยานยนต์ไฟฟ้าที่จดทะเบียนใหม่

1 January - 31 Dec 2021
1 ม.ค. - 31 ธ.ค. 2564



Current EV Status in Thailand

xEV Accumulative Registration



Battery Electric Vehicles (BEV)



2022

Electric Vehicle Association of Thailand

สรุปรถยนต์ไฟฟ้า BEV ที่มีจำหน่ายในประเทศไทย
Summary of Battery Electric Vehicle Models in Thailand

BEV 2022	Audi	BMW	BMW	BMW	BMW	BYD	BYD	Form	GWM	HYUNDAI	HYUNDAI	JAGUAR	KIA	LEXUS	MG	MG	MINI	NISSAN	PORSCHE	SAATCHI	TESLA	Volvo
	e-tron 55 quattro	BMW i3s	BMW iX	BMW iX3	BMW i4	e6	M3, T3	ONE	ORA Good Cat	KONA Electric	IONIQ Electric	I-PACE	All-New Soul EV	UX 300e	EP Wagon EV	ZS EV	MINI Cooper SE	LEAF	TAYCAN	TTE 500	Model 3	XC40 Recharge
ประเภทตัวถัง Socker Type	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2	AC Type 2	AC Type 2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 1 & CCS1	AC Type 2 & DC CHAdeMO	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 1 & DC CHAdeMO	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2	AC Type 2 & CCS2
ระยะทางวิ่งสูงสุด EV Range (km) (WLTP)	417	280	630	460	590	400	300	160	400 [TECH] 400 [PRO] 500 [ULTRA]	312 [SE] 482 [SEL]	280	470	452	360	380	337	217	311	407 [4S] 447 [Turbo] 412 [Turbo S]	100	386	418
ขนาดแบตเตอรี่ Battery Size (KWh)	95	33	111.5	80	83.9	80	50.3	11.8	47.8 [TECH] 47.8 [PRO] 63.1 [ULTRA]	39.2 [SE] 64 [SEL]	28	90	64	54	50.3	44.5	32.6	40	79 [4S] 93 [Turbo&Turbo S]	11	62	78
ประเทศต้นกำเนิด Country of Origin																						
ภาษีนำเข้า Import Tax	80%	80%	80%	0%	80%	0%	0%	-	0%	40%	40%	80%	40%	20%	0%	0%	80%	20%	80%	-	80%	0%
ภาษีสรรพสามิต Excise Tax	8%	8%	8%	8%	8%	8%	8%	0%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	0%	8%	8%
ราคาขาย Retail Price (Baht)	5,099,000	2,230,000	5,999,000	3,399,000	4,499,000	1,400,000	1,089,000 [M3] 1,059,000 [T3] 55seat 999,000 [T3] 25seat	664,000	999,000 [TECH] 1,059,000 [PRO] 1,199,000 [ULTRA]	1,849,000 [SE] 2,259,000 [SEL]	1,749,000	5,499,000 [S] 6,299,000 [SE] 6,999,000 [HSE]	2,387,000	3,490,000	988,000	1,190,000	2,290,000	1,490,000	7,100,000 [4S] 9,900,000 [Turbo] 11,700,000 [Turbo S]	438,000	2,990,000	2,590,000

ที่มา: สมาคมยานยนต์ไฟฟ้าไทย

Local EV in Thailand

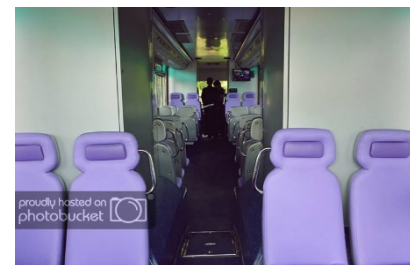
Electric scooter



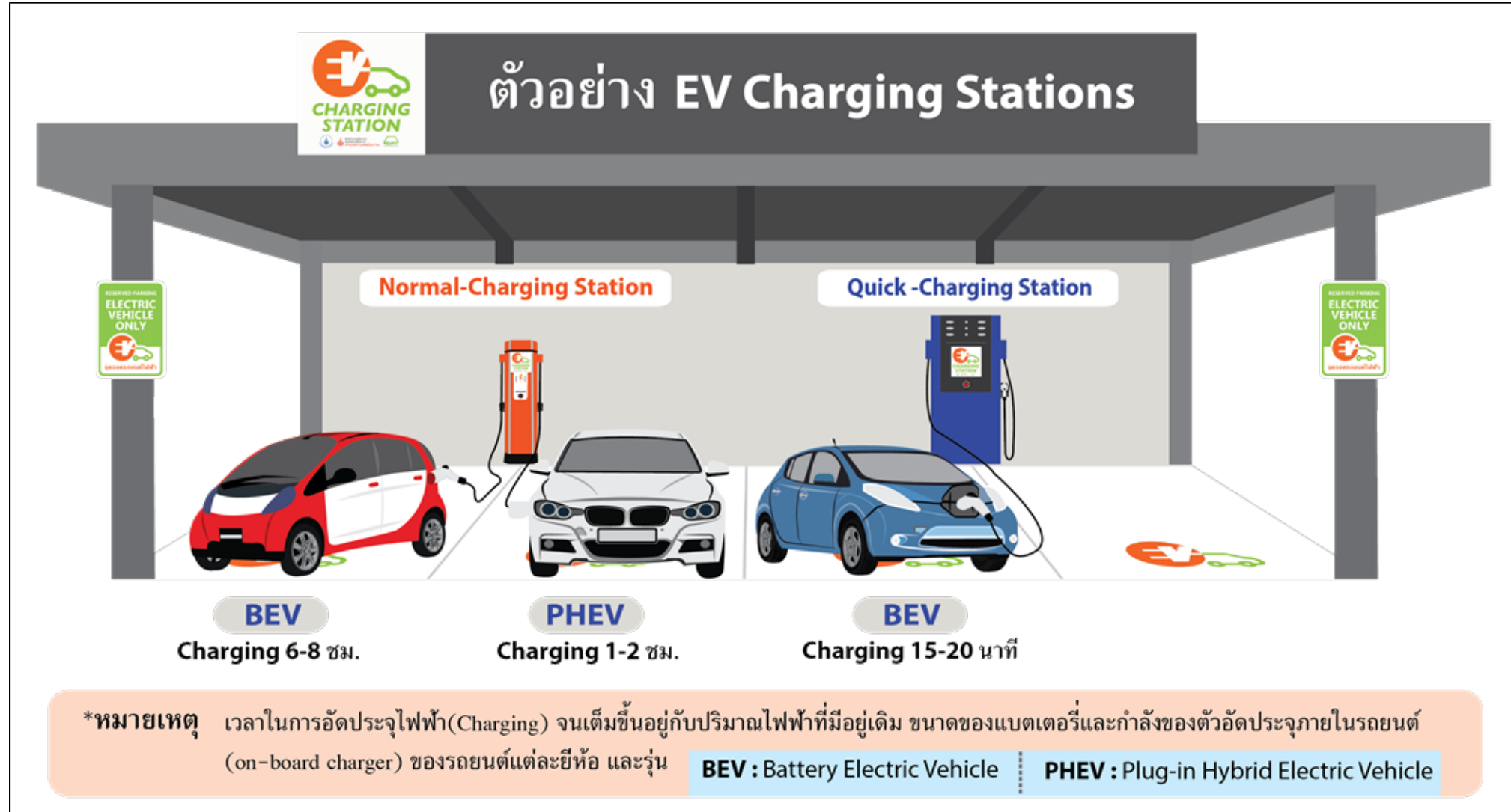
Electric Bus



Electric Tuk Tuk



Public Charging Stations in Thailand



EVAT Charging Consortium in Thailand

Charging Operator & Service Provider in Thailand



Paragon Department Store



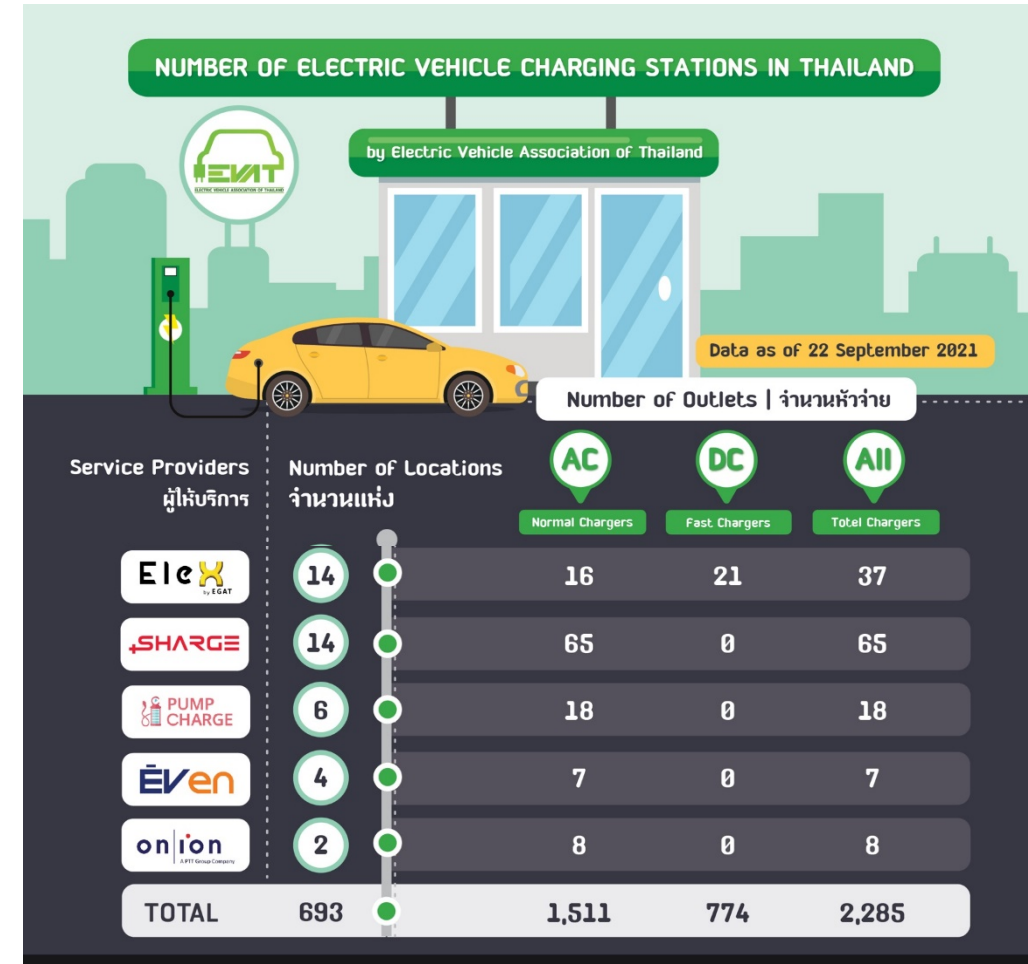
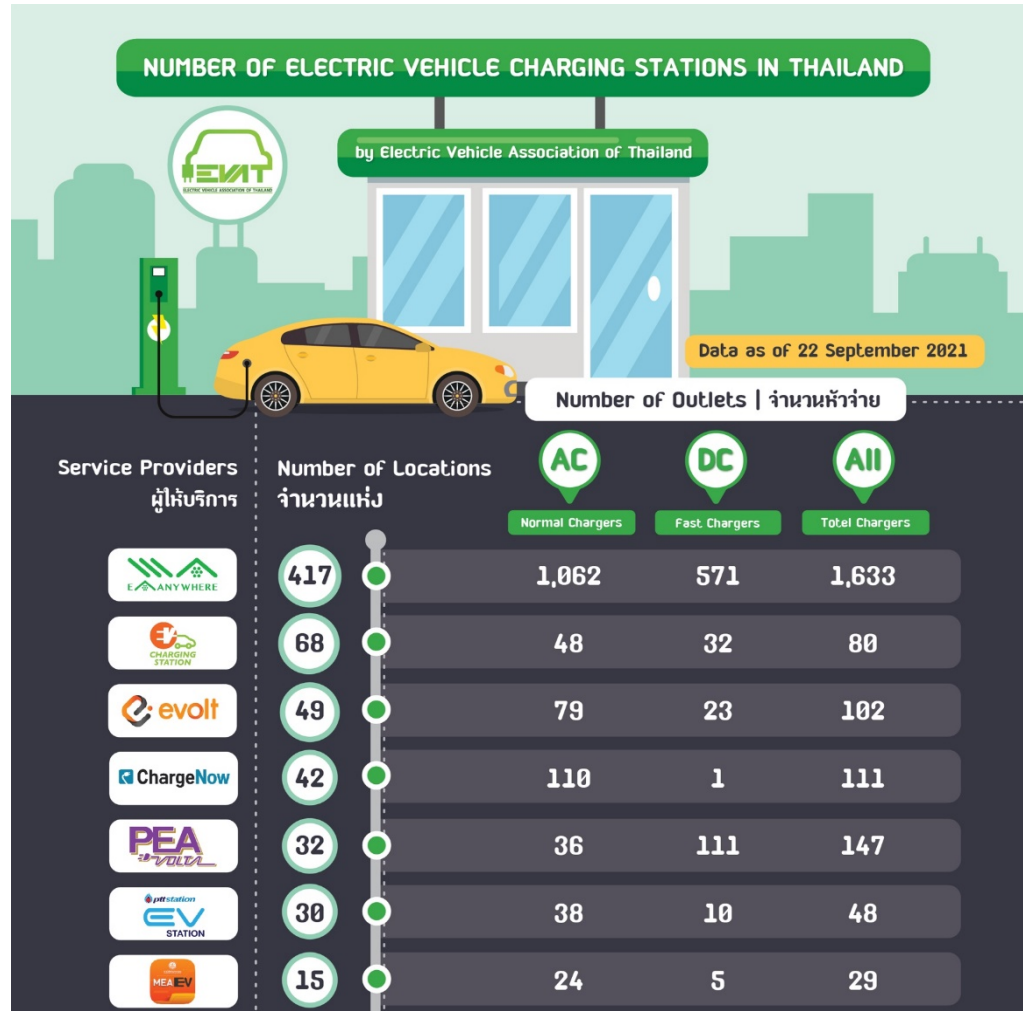
Central World Department Store



Pollution Control Department

Current EV Status in Thailand


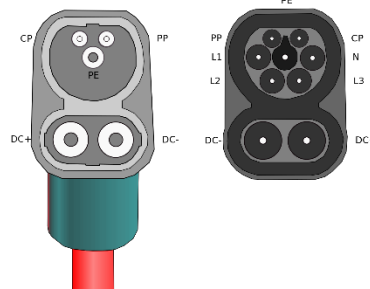
























Number of EV Charging Stations



Sockets and Inlet Standard



Thailand Industrial Standards Institute

Vehicles	AC Charger	DC Charger	Vehicles																									
Electric Bus	<p>IEC 62196-2 Configuration Type 2</p>  <p>Type 2 Female Plug Pinout</p> <p>Type 2 Male Plug Pinout</p>	<p>IEC 62196-3 Configuration FF</p>  <p>Rated Current: Up to 200 A Rated Voltage: ≥ 500 V DC Communication Protocol: PLC</p>	Electric Bus																									
Electric Passenger Car	<p>Phase: Single / Three Rated Current: 70A (Single phase) / 63A (Three phase) Rated Voltage: 480 V Capacity: Up to 22 kW (Mode 2) Up to 43 kW (maximum)</p>	<table><tr><th></th><th>System A CHAdeMO (Japan)</th><th>System B GB/T (PRC)</th><th colspan="2">System C</th></tr><tr><th></th><th></th><th></th><th>COMBO1 (US)</th><th>COMBO2 (DE)</th></tr><tr><td>Connector</td><td></td><td></td><td></td><td></td></tr><tr><td>Vehicle Inlet</td><td></td><td></td><td></td><td></td></tr><tr><td>Communication Protocol</td><td colspan="2">CAN</td><td colspan="2">PLC</td></tr></table>		System A CHAdeMO (Japan)	System B GB/T (PRC)	System C					COMBO1 (US)	COMBO2 (DE)	Connector					Vehicle Inlet					Communication Protocol	CAN		PLC		Electric Passenger Car
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Thank you

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