Utilities Sector – Overweight

News Update

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Thai EV market wrap-up for 2021

- **EV penetration rises to 2.1% toward end-2021**
- **Accumulated passenger EV is still only 0.2% of total market**
- **Tax reductions likely to boost demand next year**
- **We play an EV trend on EA, NEX, and GPSC**

Penetration rate for electric vehicle (EV), pure-battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), rises to 2.1% of total registration of passenger cars in November 2021 (Ex1). At this pace, accumulated number of passenger-EVs in Thailand would reach 35k units at end-2021 (Ex3), which is still only 0.2% of passenger car market. We expect higher EV sales in 2022F, due to lower import and excise taxes for retail segment. Commercial EVs indirectly benefit from stronger buyers' confidence, and potentially more tax incentives from the government for corporates buying EV fleets.

- From the statistics above, we still see a huge growth potential for EV in Thailand, and also Li-ion battery demand to serve production of those EVs. We estimate 100GWh annual battery demand when local automotive market fully converts into EV. Moreover, if Thailand could protect itself to continue being an auto production hub for ASEAN, battery demand would rise to 250GWh per year for production of two million cars annually.

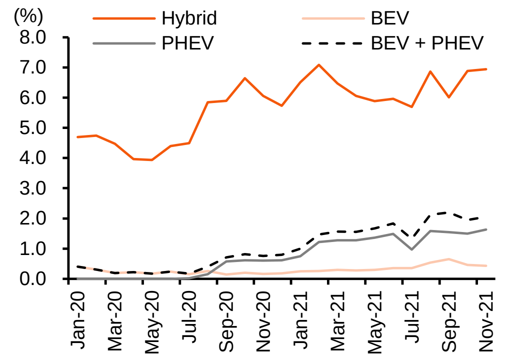
- The government plans to lower import tax on EVs from Japan, South Korea, and Europe to 0%, 0%, and 40% respectively (from 20%, 40%, and 80%), and excise tax to 2% (from 8%) to accelerate EV adoption by making passenger EV prices comparable with the ICEs (Ex4). This is a part of government's policy to promote Thailand as EV production hub for Asean via strong local demand to support investments from foreign makers in early stage. This is subjected to approval from the Cabinet which is now being postponed into early next year.

- We believe there is also a chance for the government to grant tax incentives for corporates adopting EVs to its servicing or internal fleets to further boost EV demand. However, even without incentives, we estimate that total cost of EV for commercial uses is now already around 30% lower than those of conventional ICE fleets (diesel or natural gas).

- We prefer EA as our best pick to invest in the trends of growing battery and EV demands, being a fully integrated producer from Li-ion battery to commercial EV under its owned technologies in which both factories are already commercialized. We expect strong demand surge for NEX next year as commercial EVs (i.e. E-bus and E-truck) are already feasible for service fleets, even without more benefits or subsidies.

- GPSC is another choice of battery maker we like as a catch-up play. Despite its plan to expand Li-ion battery factory is a few-years lagging EA, but potential value from the battery business has only been minimally factored into its share price. Big captive demand and strong distribution channels from the PTT Group are advantages for GPSC.

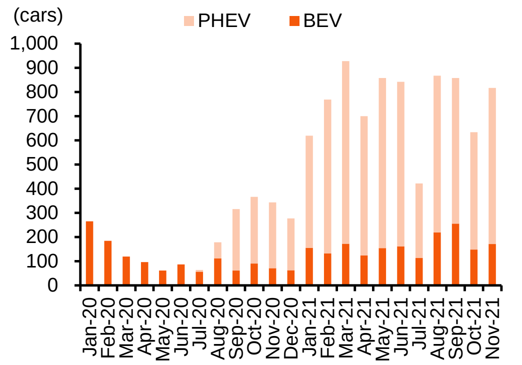
Ex 1: Penetration In Passenger Car Market



Source: Department of Land Transport

Note: PHEV is reported separately from electric motor/ combustion engine hybrid vehicles from July 2020

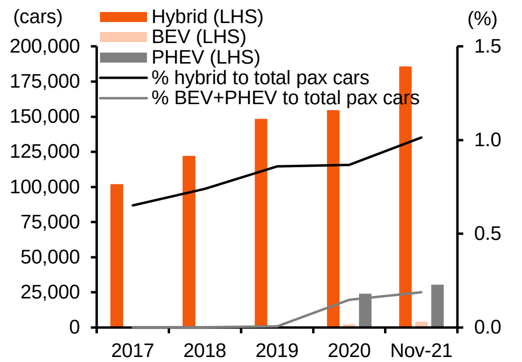
Ex 2: Monthly Core EV Sales In Units



Source: Department of Land Transport

Note: PHEV is reported separately from electric motor/ combustion engine hybrid vehicles from July 2020

Ex 3: Accumulated Non-ICE Pax Cars



Source: Department of Land Transport

Note: PHEV is reported separately from electric motor/ combustion engine hybrid vehicles from July 2020

Ex 4: Tax Reductions Significantly Lower Passenger EV Prices

	Current retail price (Bt m)	New import tax (old)	New excise tax (old)	Post tax reduction retail price* (Bt m)	Change* (%)	Battery size (kWh)	Range (km)
BYD E6	**1.40**	0% (0%)	2% (8%)	**1.32**	(5.6)	80	400
BYD M3	**1.09**	0% (0%)	2% (8%)	**1.03**	(5.6)	50	300
MG EP Wagon EV	**0.99**	0% (0%)	2% (8%)	**0.93**	(5.6)	50	380
MG ZS EV	**1.19**	0% (0%)	2% (8%)	**1.12**	(5.6)	45	337
Volvo XC40 Recharge	**2.59**	0% (0%)	2% (8%)	**2.45**	(5.6)	78	418
Nissan Leaf	**1.49**	0% (20%)	2% (8%)	**1.17**	(21.3)	40	311
Lexus UX 300e	**3.49**	0% (20%)	2% (8%)	**2.75**	(21.3)	54	360
Hyundai KONA Electric	**2.26**	0% (40%)	2% (8%)	**1.52**	(32.5)	64	482
Hyundai IONIQ Electric	**1.75**	0% (40%)	2% (8%)	**1.18**	(32.5)	28	280
KIA Soul EV	**2.39**	0% (40%)	2% (8%)	**1.61**	(32.5)	64	452
MINI Cooper Electric	**2.29**	40% (80%)	2% (8%)	**1.68**	(26.5)	33	217
Tesla Model 3	**2.99**	40% (80%)	2% (8%)	**2.20**	(26.5)	62	386
BMW i3s	**3.73**	40% (80%)	2% (8%)	**2.74**	(26.5)	33	280
Audi e-tron 55	**5.10**	40% (80%)	2% (8%)	**3.75**	(26.5)	95	417
Jaguar I-PACE	**7.00**	40% (80%)	2% (8%)	**5.14**	(26.5)	90	470
Porsche Taycan	**9.90**	40% (80%)	2% (8%)	**7.27**	(26.5)	93	447

Sources: Electric Vehicle Association of Thailand (EVAT), Thanachart estimates*

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