



Livable Cities Lab: Sustainable Mobility & The Intelligent City

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May 3, 2023

Globe Tower, Town hall

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The Surge Begins



- 14% of all sold cars in 2022 were EV
- China had 60%, EU 15% and US 8%
- 2023 will have 14M unit sales, 35% up y-o-y, approximately 1 out of 5 cars sold
- Battery manufacturing capacity delivered by 2030 are more than sufficient to meet the demand

Source: IEA.org

Impacts of EV Transport in Philippine Cities

- **Reduced air pollution; improvement of public health**

air pollution as a major concern in congested cities, EVs that produce zero emissions, can help to reduce carbon emissions

Since air pollution is a major contributor of respiratory illness, these incidents would naturally go down when more EVs are used.

Impacts of EV Transport in Philippine Cities

- **Lower Costs of Transportation:** Over the long-term running an EV is cheaper than gas or diesel
- **Higher Energy Security:** Higher EV use will lessen dependence on imported oil and may increase energy security

Impacts of EV Transport in Philippine Cities

- **Reduced greenhouse gas emissions:** EVs produce fewer greenhouse gas emissions than traditional vehicles, so they could help to reduce the Philippines' contribution to global climate change.

This could open sustainability investment opportunities with companies that look at geographies that have significantly reduced greenhouse gasses.

Ayala's ECOSYSTEM Approach: AC has many of the elements and capabilities needed to build a robust EV ecosystem



- **Largest Estate Developer in the PH:** Develops and manages offices, malls, and residential properties, which can be leveraged for automotive distribution networks
- **Enabling EV Charging:** Significant nationwide parking inventory to be outfitted with charging capabilities (first rollout completed in 2022)



- **Goal to be Largest SEA Provider of Renewable Energy:** ~3.7GW of attributable RE capacity across the region; goal of 20GW by 2030
- **Storage:** Operates battery storage facilities (~40MW) in PH and VN; these can be downstream users of replaced vehicle batteries



- **Net Zero GHG Commitment:** Ayala has identified **electric transportation** being a key enabler to achieving its 2050 goals
- **Transforming Our Internal Fleet:** With over **400 service vehicles and 5,000+ Ayala employees on car plans**, demand across the group presents an **opportunity to shift towards EVs**
- **AC Logistics** (through its subsidiaries Air21 and Entrego) is **exploring options to electrify its large fleets**



- **Third largest bank in the PH:** Strong asset and loan base
- **Financing:** Developing programs for the EV market



- **Core capabilities in connectivity & consumer insight**
- **Venture Building:** GCash platform & Gogoro partnership

Items in blue are EV Ecosystem Initiatives and

Source: Ayala Group Business Units

Opportunities

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AC Industrials business units already participate at multiple points across the Philippine EV ecosystem

EV Assembly

Charging Infrastructure

Mobility Solutions



Full assembly of Zero EV Motorcycles in Laguna, Philippines factory in 2023



Manufactures charging stations & components at Chengdu factory



Partnership with **PH charger distributor** which provides installation, integration, service/repair, and data management



- **Importation, distribution, and retail of EVs**, together with OEMs (KIA EV6)
- Exploration of **e-PUV, commercial, and fleet** options,
- **Installation of EV chargers** at select strategic locations



Building an ecosystem that drives unique customer value and aims to support the Philippines' transition to EVs

ENVISIONED AYALA ECOSYSTEM BENEFITS

FOR THE HOME



- Offering customers Home EV charging installation with a key IMI partner
- Home clean power (solar) set-up with ACEN partners

FOR ON-THE-GO



- Planned network of EV charging stations in key Ayala Land estates nationwide
- Access to a network of charging station partners being built

FOR FLEETS



- Priority brand for conversion of the Ayala Group fleet of over 6,000 vehicles to EVs in ~10 years
- Access to other corporate partners (including logistics)

FOR ENABLING LIFESTYLES



- Crafting exclusive Ayala perks for EV owners nationwide (e.g. free parking in malls, resort access, exclusive GCash and BPI promos)

FOR SUPPORTIVE REGULATION



- Close partnership of the Ayala Group with both national and local entities
- Potential to explore EV pilots with key gov't partners



100m

48
mph

- 1. Acceleration
- 2. Braking
- 3. Steering
- 4. Throttle
- 5. Gear
- 6. Fuel
- 7. Temperature
- 8. Pressure
- 9. Vibration
- 10. Noise