Clean energy: The giants have awoken

Major car manufacturers pledge to "go electric"

here's a lot to unpack recently in the e-mobility space, especially since mid-March when Volkswagen presented its ambitions to become the global leader in electric vehicles (EVs) by 2025. It seems like the traditional auto-makers have finally woken up to the future of electrification, and will now be joining the electric vehicle ecosystem. In the same week as Volkswagen's presentation (which aims for battery electric vehicles to exceed 70 per cent of European and 50 per cent of Chinese and US sales by 2030), BMW also announced a targeted steep rise in EV sales by the end of the decade - planning for 50 per cent of global sales to be fully electric by 2030. These announcements follow similar commitments from the likes of General Motors, Ford, and Volvo earlier this year. General Motors has announced plans to end production of all diesel-and gasolinepowered cars, trucks and SUVs by 2035 and shift its entire new fleet to electric vehicles as part of a broader plan to become carbon neutral by 2040.

This broader shift towards electric vehicles from traditional car OEMs (Original Equipment Manufacturer)

Electric Vehicle Sales Penetration by Region



Source : UBS Q-Series March 2021: EVs shifting into overdrive

shows how, after years of slow evolution, e-mobility has finally reached an inflection point and will be going mainstream. In fact, UBS estimates that almost 80 per cent of all passenger vehicle sales in Europe will be electric by 2030 (ie less than 10 years from now), compared to only 8 per cent last year. China and the US follow suit, with respective estimates for 62 per cent and 44 per cent of EV sales penetration by 2030.

To meet this accelerated increase in EV penetration, car OEMs are now also investing heavily into battery plants as well as charging infrastructure to remove any remaining barriers for the mass adoption of EVs. For example, Volkswagen is looking to build six new battery plants in Europe to meet its revised EV sales targets – with the first two plants located in Sweden and Germany. They have also announced collaborations to build fast public charging infrastructure in Europe and China, which will support their target to halve EV charging times by 2030. In Europe, Volkswagen aims to add 18,000 fast charging points by 2025 representing a five-fold expansion of the existing fast-charging network. Such

> build-out will be done via partnerships with European utilities such as Enel (Italy) or Iberdrola (Spain), but also with BP (Britain and Germany) and Ionity (a JV between BMW, Daimler, VW, Ford and Hyundai). In China, Volkswagen announced they would roll out 6,000 chargers by end of 2021 and 17,000 chargers

by 2025 through their joint venture with Chinese partners JAC, FAW and Star Charge. This is similar in scale to the rollout we are seeing from Tesla and other manufacturers such as Nio and XPeng in China.

Furthermore, the transition to lowcarbon transport is receiving widespread support from governments. For instance, Biden announced a \$2.25 trillion Infrastructure Plan on 31 March, which would direct \$174 billion to electric vehicles, including sale rebates and tax incentives. It would also provide grants to state and local governments and the private sector for 500,000 EV charging stations by 2030, and includes funds to electrify school buses and federal vehicles such as Postal Service trucks. On a similar note, the UK has banned sales of petrol and diesel cars by 2030 and has earmarked £2.8 billion for the UK car manufacturing industry to make this transition (with approximately £1.3 billion used for accelerating the roll out of charging infrastructure).

With continuing cost reductions, supportive regulatory frameworks, and now firm commitments from some of the world's largest car companies, the secular growth drivers for e-mobility are firmly in place with an accelerated transition underway. For Pictet-Clean Energy, this will have resounding positive effects across the whole value chain of e-mobility, where the portfolio has >30 per cent exposure. Investment opportunities are not only limited to car OEMS and auto parts suppliers, but also in various upstream and downstream segments such as semiconductor companies and charging infrastructure.

