The Big Names and Unsung Heroes Charging Up Global Electrification

DISCUSSION PAPER



Warning signs abound that the effects of the climate crisis are upon us sooner than expected. Severe weather patterns, food systems in flux, and a global thermometer that continues to shatter annual temperature records are all poised to intensify the situation.

Carbon emissions are the foremost culprit of these side effects, which characterize the climate crisis. Fossil fuels have dominated our energy equation since the Industrial Revolution made its mark across the globe, beginning in the late 19th century. This dependence on fossil fuels unsettled the natural world to an all-encompassing level and brought us to our present-day scenario.

The untenability of the relationship between energy and climate security is as apparent as ever.

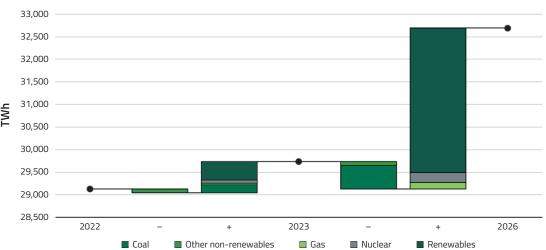
The planet is on the proverbial hot seat to course correct—which means there are prevalent risks and opportunities to be assessed through our long-term investment lens.

ALL EYES ON ELECTRIFICATION

However, amid this high-stakes environment, signs of the tide turning in favor of renewable energy exist. Sinopec, the world's largest energy company, forecast at the end of 2023 that its country of incorporation, China, had already reached peak oil demand. Moreover, the International Energy Agency's (IEA) 2023 annual report predicted a dramatic drop in the growth of global oil demand in the next four years.

This sentiment can be traced to an investment theme that continues to grow across every facet of every industry: electrification. This term reflects the decarbonization of existing technologies and the subsequent conversion of renewable sources to electric power, which can reduce the total emissions load across a value chain. This shift from the predominant use of fossil fuel to a more electrified

CHANGES IN GLOBAL ELECTRICITY GENERATION, 2022-2026



world is also a boon for sustainable energy production, as the adoption of renewable energy will serve as an undercurrent for the transition.

In its 2024 report, the IEA predicts that electricity demand will skyrocket in the coming years, fueled in part by the rise of energy gluttons such as artificial intelligence (AI) and cryptocurrency—sectors with a predicted two-fold increase in electricity consumption as soon as 2026.² Globally, the report also predicts a rise in electricity demand at an average annual rate of 3.4% through 2026.²



This combination of expected overall demand and the rise of energy-intensive technologies is likely to spur significant breakthroughs in infrastructure and battery technology.

The IEA also points to renewables meeting all the world's demand growth through 2026.² As the demand for electricity climbs, so too will the mandate for renewables to enter the fray.

But where, specifically, can investors deploy capital to harness the growth potential in electrification and parallel prospects in renewables? Let us explore a few opportunities, both on the main stage and behind the curtain of this global charge for a better energy system.

FORTIFYING THE BACKBONE OF THE TRANSITION

At Reynders, McVeigh, our disciplined approach leads us to investment opportunities in themes such as electrification. We find value in the players that serve as a backbone to the transition at large. For example, while electric vehicles (EVs) will play a role in reducing our emissions levels by a sizeable margin, the story goes well beyond the vehicles themselves to include the specific components used to build them.

Consider Tesla (NASDAQ: TSLA). While it may be the world's second-largest EV producer, the company is a small piece of the truly vast scale of electrification. A wide spectrum of players are emerging to represent every aspect of this theme. For example, electrification's success (and its surge) is dependent on companies that build and develop grid infrastructure.

NEXANS

One company forging ahead with innovative electrification solutions is Nexans (EPA: NEX), a cable products and solutions company based in France. While not a household name for many, Nexans is accelerating the adoption of renewable energy technologies across the globe by designing, manufacturing, and installing aluminum and copper cables for electricity transmission.



Electrification is core to Nexans' business and accounts for 56% of its operations.³ Within that slice is power generation and transmission, in which Nexans provides high-voltage cables that can, among other use cases, connect offshore wind farms to land-based grids. The remaining 44% of operations are distributed across other industry areas, including many that are still pertinent to electrification and renewables adoption, such as wiring solutions for EV charging stations and cables in wind turbines.³



By 2030, global spending on electrical grids must nearly **double** from \$320B to \$600B to accommodate renewables

Nexans is also poised to be a major player in the renewal and expansion of grid infrastructure in the coming years. According to a 2023 report from the IEA, worldwide spending on electrical grids must increase from \$320 billion (at present) to \$600 billion within the next six years to accommodate the shift to renewables. Nexans has an opportunity to assist in both the renewal of aging grids (Europe and North America come to mind) and the capacity expansion of emerging markets' younger grids (e.g., Africa and the Middle East).

APTIV

At the core of EV production are companies like Aptiv (NYSE: APTV), an Irish auto industry supplier that works directly with manufacturers to apply its products to specific models. Aptiv designs and manufactures wires and other connector components as part of a vehicle's electrical architecture. This critical infrastructure in cars

helps ensure that air bags, air conditioning, antilock brakes, ignition, lights, and a host of other items function properly. As an international industry leader in quality and execution, Aptiv controls 20%–30% of the auto wiring and connector markets.⁵

With increasing sales of EVs in markets across the globe, notably in Asia and the EU, Aptiv is positioned to benefit from an increasing capability to service vehicles. Last year, it acquired Intercable Automotive for €595 million, which strengthened Aptiv's capabilities in producing components that draw and distribute power from a car's battery. Aptiv's footprint in terms of product implementation is widened by a significant margin when comparing EVs and internal combustion engine (ICE) vehicles.⁵

TWO TITANS OF ELECTRIFICATION

The aforementioned companies represent lesser known yet integral players in electrification, and Reynders, McVeigh still finds value in more traditional front-end providers. We will now dive into two bigger names that are blazing the electrification trail.

VOLKSWAGEN

The world's second-largest automaker, Volkswagen (FRA: VOW), is based in Germany and boasts a market share that spans several continents and regional markets. Its notable brand assets include ultra-luxury Lamborghini, Bentley, Porsche, Bugatti, and Audi; European names Škoda and SEAT; and commercial giants Scania and MAN Truck & Bus. Armed with an impressive arsenal of brands, Volkswagen has had ingrained ambitions to become the leader in EVs, with each member of its roster executing bold electrification strategies.

Volkswagen's pathway to EV success is fueled by the fact that, as of 2021, its market share for EVs was already almost twice as large as for the internal combustion engine (ICE) vehicles it produced.⁶ On the supply chain front, Volkswagen is weaning itself off its reliance on global leaders in batteries (CATL, LG, etc.) by developing its own production facilities.⁶

The company's move includes planting its flag in Asia, the global battery market epicenter; Volkswagen began operating its first wholly owned battery production facility in China as of November 2023.⁷ That is no accident; China dominated global sales of EVs to the tune of 60% in 2022, and Volkswagen aims to increase its already well-established EV market share there in order to power future growth.⁸

With its growing presence in Asia, increasing battery production capabilities, and unilateral and unified electrification commitment across its brands, Volkswagen is positioned to emerge as a global leader in EVs.

SCHNEIDER ELECTRIC

One of the world's largest manufacturers of electrical and automation equipment, France-based Schneider Electric (SU: XPAR), is often at the heart of any conversation related to electrification. Its energy management subdivision accounts for nearly 80% of its sales and involves thousands of products in the realm of electricity, from substations to residential applications.⁹

As a leading manufacturer in the buildings, industrial facilities, data centers, and infrastructure end markets, Schneider Electric is in an excellent position to benefit from the global energy transition.

Schneider Electric plays an integral role in ushering in a more electrified energy equation on a global scale, with relationships that supersede geopolitical fault lines.

Companies like Schneider Electric are capable of delivering the infrastructure required for a bold transformation to cleaner energy, and its stake in this endeavor is expected to grow in the forthcoming decades.

LOOKING AHEAD

Electrification is worthy of the "megatrend" distinction, as it encompasses every facet of the global energy transition. The world is accelerating toward peak demand of fossil fuels, and forward-thinking companies are positioning themselves for the next evolution of energy infrastructure and distribution.

Within this massive shift, the Reynders, McVeigh investment team is focused on identifying opportunities for value and long-term growth. Our rigorous assessment of fundamental financial strength, non-financial data, and proactively gathered qualitative inputs help us invest in equities that stand apart from the Wall Street herd and ahead of the mainstream pack.

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¹ cleantechnica.com/2023/10/11/chinas-oil-gas-giant-sinopec-says-peak-oil-demand-already-happened-in-china/.

² iea.org/reports/electricity-2024/executive-summary.

³ Reynders, McVeigh Capital Management, LLC, ed. "Volkswagen." Boston, Massachusetts, June 20, 2023.

⁴ iea.org/reports/electricity-grids-and-secure-energy-transitions/executive-summary.

⁵ Reynders, McVeigh Capital Management, LLC, ed. "Aptiv (APTV)." Boston, Massachusetts, May 9, 2023.

⁶ Reynders, McVeigh Capital Management, LLC, ed. "Volkswagen." Boston, Massachusetts, December 6, 2022.

reuters.com/business/autos-transportation/volkswagen-begins-operating-first-wholly-owned-battery-pack-plant-china-local-2023-11-21/.

⁸ iea.org/reports/global-ev-outlook-2023/executive-summary.

⁹ Reynders, McVeigh Capital Management, LLC, ed. "Schneider Electric." Boston, Massachusetts, April 27, 2023.