

## Innovations Towards Zero Emission Green Cars Future

In a significant move towards environmental sustainability, the Canadian government is set to unveil the Electric Vehicle Availability Standard, mandating that all new vehicles sold in the country must be zero-emission right by 2035. This initiative aims to revolutionize the automotive industry, promoting the adoption of electric vehicles (EVs) to mitigate climate change. Similar to the United Kingdom and certain U.S. states, Canada's ambitious plan outlines a step-by-step approach to gradually eliminate combustion vehicles from the market.

According to reports from the [Canadian Broadcasting Corporation](#) and the Toronto Star, the Electric Vehicle Availability Standard will require zero-emission vehicles to constitute 20% of all new car sales in 2026, 60% in 2030, and achieve a remarkable 100% by 2035. This aggressive timeline underscores Canada's commitment to reducing greenhouse gas emissions and aligns with global efforts to combat climate change.

Canada joins the United Kingdom in adopting a similar EV sales mandate, highlighting the international consensus on the urgency of transitioning to sustainable transportation. More than a dozen U.S. states, including environmentally conscious regions like New York and California, have also implemented EV sales mandates. This global alignment reflects the shared commitment to building a greener future.

The transition to electric vehicles is not just a regulatory endeavor but also a technological revolution. Globally, numerous innovations are shaping the future of electric transportation. For instance, Tesla - a pioneer in the EV market, continues to lead the charge with cutting-edge technology and a robust charging infrastructure. At the same time, European automakers, such as Volkswagen, BMW, and Volvo, are investing heavily in electric vehicle development, contributing to the growth of the market. Even China - with the world's largest automotive market, is at the forefront of electric vehicle production, with companies like NIO and BYD making significant strides.

However, why do the biggest leaders in the automotive industry put their stakes towards eco-friendly ways and strive to fully shift to EVs? To understand their decisions, we must get the bigger and brighter picture and delve into the core of the situation. Here are the main reasons to choose electric cars over gasoline ones:

Feature	Electric Cars	Gasoline Cars
Environmental Impact	Zero tailpipe emissions	CO2 emissions and air pollutants
Fuel Cost	Lower electricity costs per mile	Fluctuating gasoline prices
Maintenance	Fewer moving parts, lower maintenance	Complex engine systems, higher costs
Performance	Instant torque, smoother acceleration	Traditional engine lag, slower start
Charging Infrastructure	Growing network of charging stations	Established but limited gas stations

## Volkswagen's Electrification Odyssey

At the forefront of the electric revolution is Volkswagen, Germany's automotive giant. The company's commitment to electric vehicles is evident in its €30 billion (\$34 billion) investment over the next

five years, aiming to produce an electric or hybrid version of every vehicle in its lineup. This radical transformation, unparalleled since World War II, reflects Volkswagen's determination to overcome its diesel emissions scandal and establish dominance in the electric vehicle market.

Volkswagen's luxury brands, including Porsche and Audi, are spearheading the electric revolution. The e-ron SUV, Audi's first fully electric vehicle, serves as a testament to Volkswagen's dedication to producing electric vehicles that are not only environmentally friendly but also luxurious and appealing to consumers.

## Global Shifts in Automotive Manufacturing

As Germany's most successful automaker transforms its factories to accommodate electric car production, a similar shift is underway in Brussels. The peculiar car factory mentioned on the southern edge of Brussels is a testament to Germany's commitment to electric mobility. Instead of traditional components like exhaust pipes and fuel tanks, this factory focuses on battery production, with each electric SUV housing 36 battery modules for extended range and faster recharging times.

Tesla, the American electric car pioneer, has been a front-runner in the global electric vehicle race. However, traditional automakers like Volkswagen are catching up rapidly. With a plan to launch 70 new electric models by 2028 and an aspiration for 40% of its sales to be electric by 2030, Volkswagen aims to dethrone Tesla as the leader in global electric car sales.

As Canada moves towards an all-EV future, the global push for sustainable transportation gains momentum. The Electric Vehicle Availability Standard not only sets a precedent for other nations but also signifies a bold step towards a cleaner, greener automotive industry. The benefits of electric cars, coupled with ongoing global innovations, make it clear that the road to a sustainable future is electric.

## Overcoming Past Hurdles

False starts and hesitancy from traditional automakers have marred the history of electric cars. However, the current consensus among industry experts is that a tipping point is imminent. Falling battery costs, government subsidies, and stringent emission regulations are converging to make electric vehicles more appealing and affordable for consumers.

The automotive industry's track record with electric cars, dating back to General Motors' EV1 in 1996, has been checkered. Yet, the evolving landscape indicates a more optimistic future. With dramatic declines in battery prices, leading automakers are poised to offer fully electric vehicles at prices competitive with traditional gasoline and diesel cars.

## The Global Race to Electrification

While Tesla maintains its lead in the electric car market, traditional automakers are closing in. Sales projections for 2025 depict Volkswagen leading the charge, with Renault-Nissan-Mitsubishi and China's Geely surpassing Tesla in sales. This shift highlights the industry's acknowledgment of the inevitability of mass electric vehicle adoption.

## The Fate of Legendary Car Brands Hangs in the Balance

The future of some of the globe's most revered automotive names teeters on the brink. As per LMC Automotive's predictions, Volkswagen's monumental investment is poised to propel it to new heights, with a forecast of over 1.4 million electric car sales annually by 2025. This staggering figure surpasses all competitors, including Tesla, expected to produce just a third of Volkswagen's anticipated sales. The Renault-Nissan-Mitsubishi alliance holds steady in second place, targeting nearly 590,000 electric vehicle sales in 2025. China's Geely, the owner of Volvo, secures the third

spot, with Tesla and Toyota following closely. Daimler, Hyundai, General Motors, and Ford are each projected to sell between 330,000 and 400,000 electric cars in 2025.

Amid this automotive revolution, Stefan Niemand from Audi highlights the industry's focus on autonomous driving. Addressing efforts from tech giants like Uber, Google, and Apple, Niemand suggests that, despite significant endeavors, the outcomes have been underwhelming. He emphasizes the continued central role of the car in these autonomous endeavors, challenging the effectiveness of ventures that divert from the core concept of a car.

Al Bedwell asserts that Volkswagen's abundance of resources and expertise positions it favorably against Tesla. He foresees Volkswagen outpacing Tesla, benefiting from a more efficient production process and the ability to handle large volumes profitably. This strategic edge allows Volkswagen to navigate the evolving landscape, where the ability to produce at scale becomes a critical factor.

### The Industry Readies for Transformation

Ford's CEO, Jim Hackett, underscores the necessity of an industrial model in car manufacturing. While acknowledging technological advancements, he asserts that Ford excels in maintaining a robust manufacturing process. Hackett's commentary takes a subtle dig at Elon Musk, recognizing the competition with a "rocket scientist" while asserting that the ultimate disruptor remains Henry Ford.

Stefan Niemand from Audi makes a compelling case for embracing electric mobility, drawing parallels to the evolution of diesel engines. Niemand reflects on the drastic transformation of diesel engines over the past three to four decades, highlighting the potential for electric vehicles to meet diverse customer demands. Despite acknowledging imperfections, Niemand champions the capability of electric vehicles like the e-tron to fulfill the needs of discerning customers.

Elon Musk's vision, articulated during the unveiling of the Model Y, resonates with the industry's ongoing transformation. Musk expresses a longstanding goal — to drive the entire car industry toward embracing electric vehicles. As the battle for supremacy unfolds, Musk's aspiration is inching closer to reality, heralding an era where electric dominance in the automotive industry becomes an inevitability.

In a game-changing move, Canada has thrown down the gauntlet with its Electric Vehicle Availability Standard, demanding all new vehicles to be zero-emission by 2035. Following in the footsteps of the UK and select U.S. states, this mandate charts a course to phase out combustion vehicles systematically. It's not just a regulatory shift; it's a tech revolution. Industry stalwarts like Tesla and Volkswagen are revolutionizing the market, pushing the boundaries of innovation. The once hesitant automotive landscape is now at a tipping point, with plummeting battery costs and strict emission rules making electric vehicles the new cool. As Volkswagen's electrification saga unfolds, the world is racing towards a sustainable future on an unmistakably electric highway. Buckle up; the ride is about to get electrifying!

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