# Encuentro Automotor CAVEM

9 de Noviembre 2021



# Chile en las Noticias de EE.UU.



#### Chile's hot economy means 13-month wait for a Silverado

any new cars and trucks are hard to find in the U.S. these days, but they're even more scarce in Chile, where a redhot economy has created waits of more than a year for some popular models. One of the toughest nameplates to get is the **Chevrolet** Silverado. The current estimated delivery date for a diesel Silverado is October 2022, according to Bloomberg.

Chileans began snapping up vehicles, appliances and electronics after the government injected \$49 billion into the economy by allowing early withdrawals from private pension funds established under former dictator Augusto Pinochet.

Cash payouts during the coronavirus pandemic have fueled demand even more.

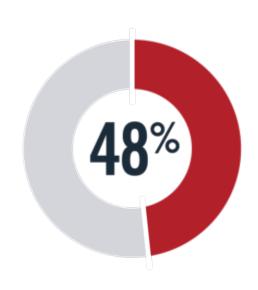
"The money came in and then people started to buy cars like crazy," said Carol Castillo, a saleswoman at a Chevrolet dealership in downtown Santiago.

Chile's coronavirus vaccination rate, near 75 percent, is the highest in all the Americas, providing yet another lift to the economy as infections decline. New-vehicle sales nearly doubled in August from a year ago.

Castillo has been swamped setting up test drives, haggling over prices and trying not to disappoint customers who learn there's a long wait for the model they want. She was able to help one recent patron, a working-class man in his late 30s who spent years saving enough money to buy his own vehicle.

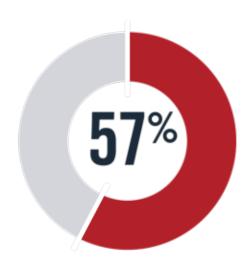
"He got so emotional that he cried," she said. "He was finally able to purchase his first car."

# Mercado en EE.UU.



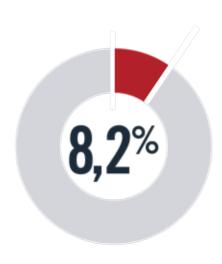
Concesionarios ganancias en 2020 es un récord: \$2,2 millones – incremento de 48% **\$3.0** 

2021 ganancias otro record arriba de \$3.0 millones

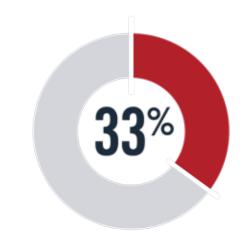


Inventario nuevos menos de 1 millón de unidades – 57% disminución

## Mercado en EE.UU.



Precio promedio de un nuevos \$42,700 – 8,2% incremento

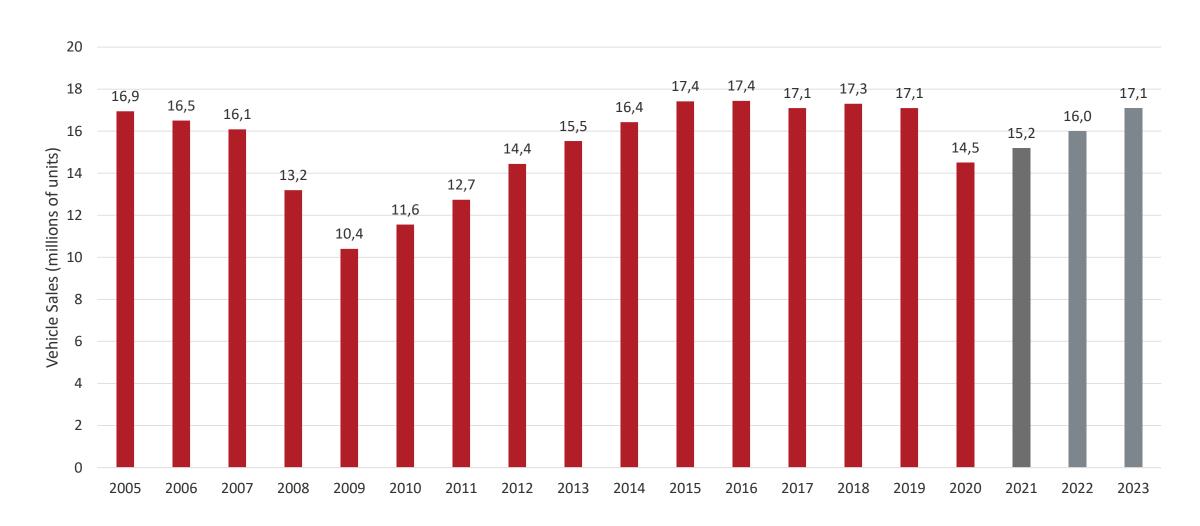


Precias promedio de usados \$25,800 – 33% incremento 3.33

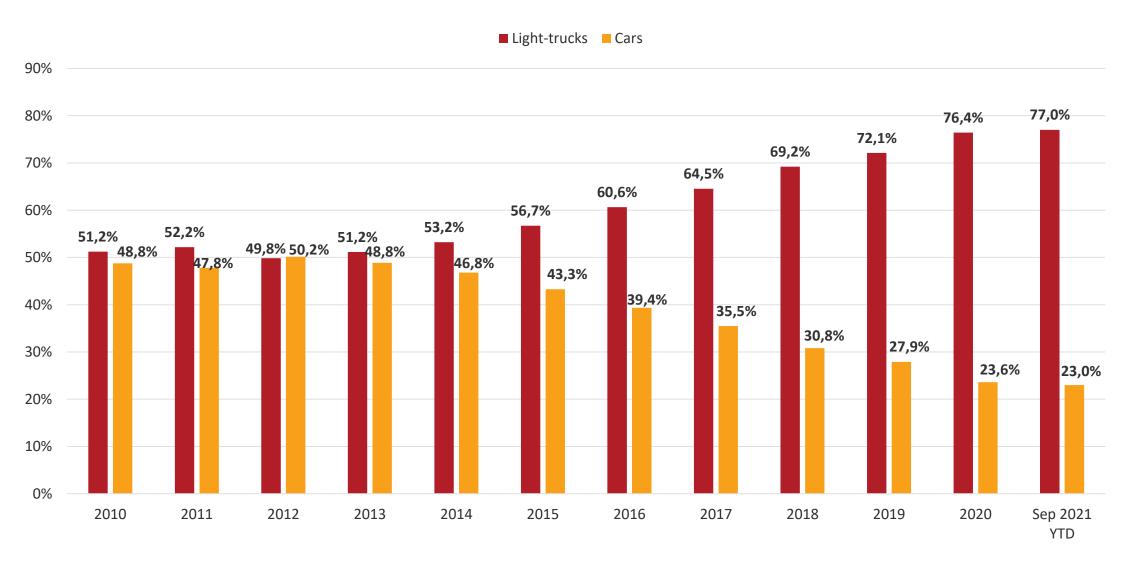
Producción perdido 3.33 millones de unidades **\$210** 

Ganancias perdidas por falta de chips – \$210 mil millones

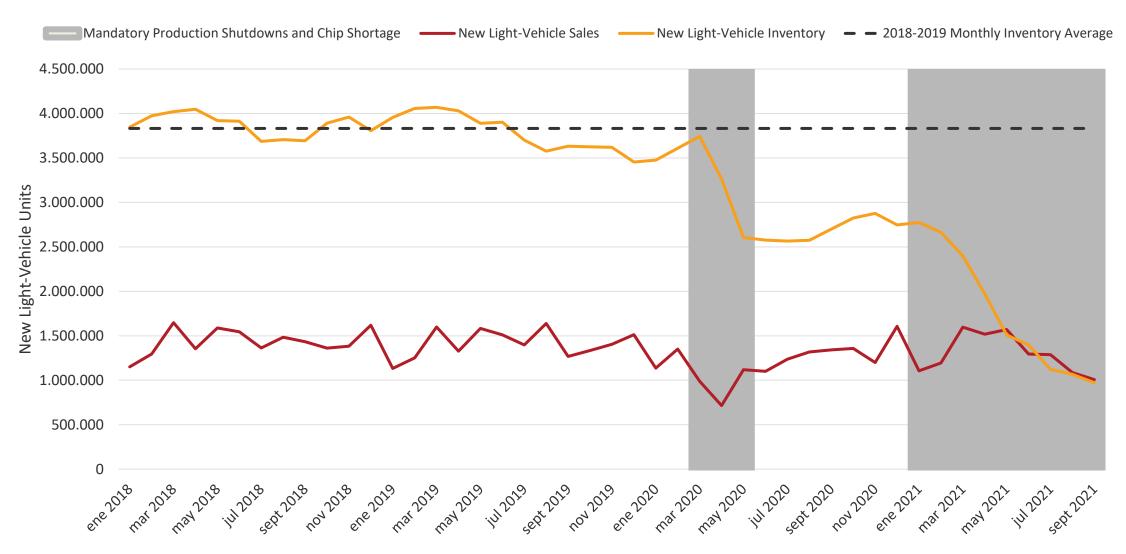
# Ventas históricos en EE.UU. - Nuevos



## Mezcla de Vehículos Vendidos



# Inventario y Ventas - Nuevos

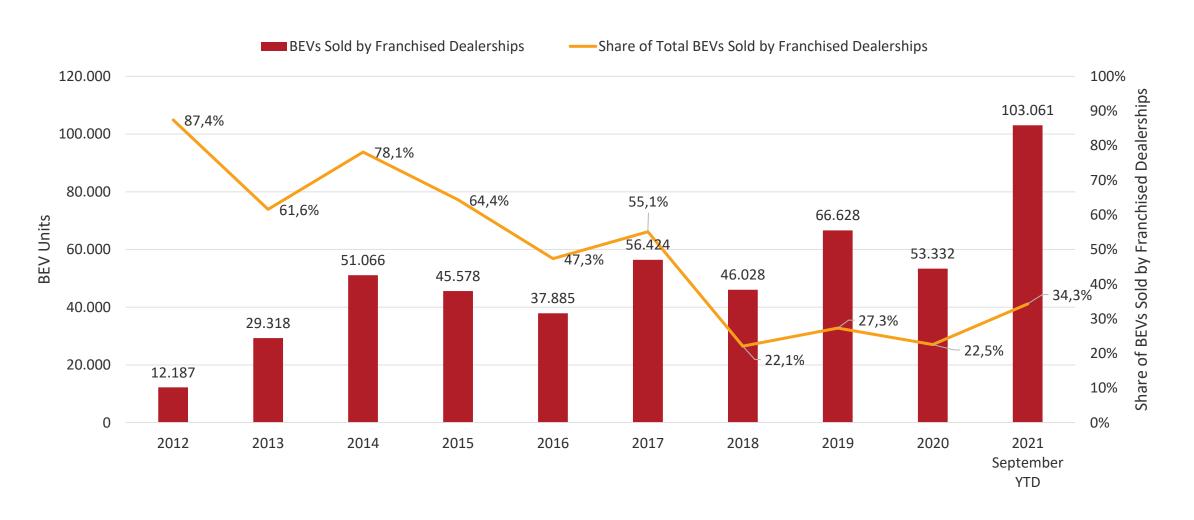


# Ventas por tipo de Motor

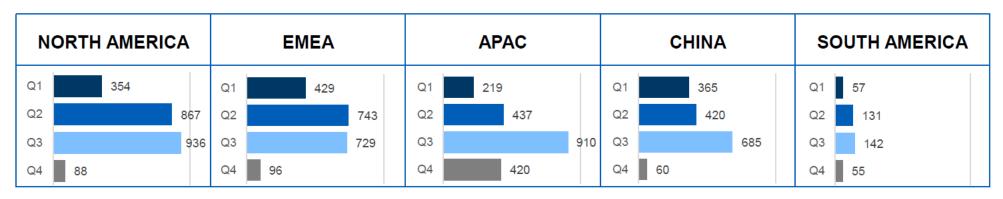
	Sept 2021 YTD		Sept 2020 YTD	
	Units	Share	Units	Share
Gas	10,163,385	87.1%	9,470,732	91.9%
Diesel	464,043	4.0%	338,973	3.3%
Unspecified Gas/Diesel	1,008	0.0%	1,100	0.0%
Natural Gas	0	0.0%	0	0.0%
Hybrid	<mark>606,920</mark>	5.2%	295,886	2.9%
Plug-in Hybrid	<mark>126,464</mark>	1.1%	43,787	0.4%
Electric	300,635	2.6%	157,153	1.5%
Fuel Cell	<mark>2,743</mark>	0.0%	661	0.0%
Total	11,665,198		10,308,292	

Source: Wards Intelligence

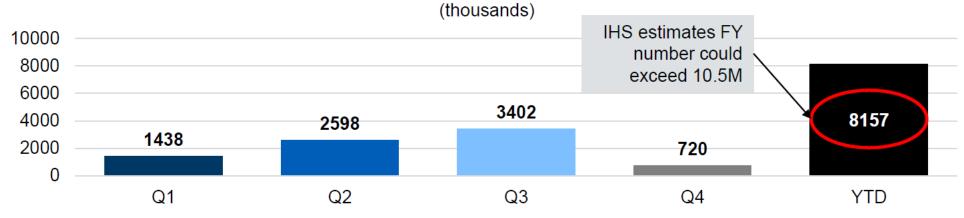
# Eléctricos Vendidos por Concesionarios



## Estimado Producción Perdido



#### **Global Chip Impact by Quarter**



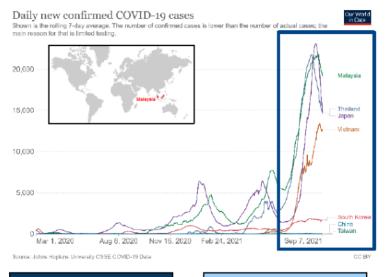
Source: IHS Markit



# Impacto de Malasia

#### Chip Outlook

Spike in COVID-19 cases in Malaysia latest cause of shortages



13% Global chip assembly in Malaysia

**7**% Global chip trade that passes through Malaysia

Source: Reuters, Company Announcements, Market Intelligence Analysis

"Predicting based on data I'm seeing, the situation should improve, but we still cannot fulfill the demand. In January, the automotive industry realized they wanted to get back the capacity, but the semiconductor fabrication plants didn't have the capacity for them."

- Wong Siew Hai, President of Malaysia Semiconductor **Industry Association** 

Companies announcing downtime as a result of Malaysia lockdowns...











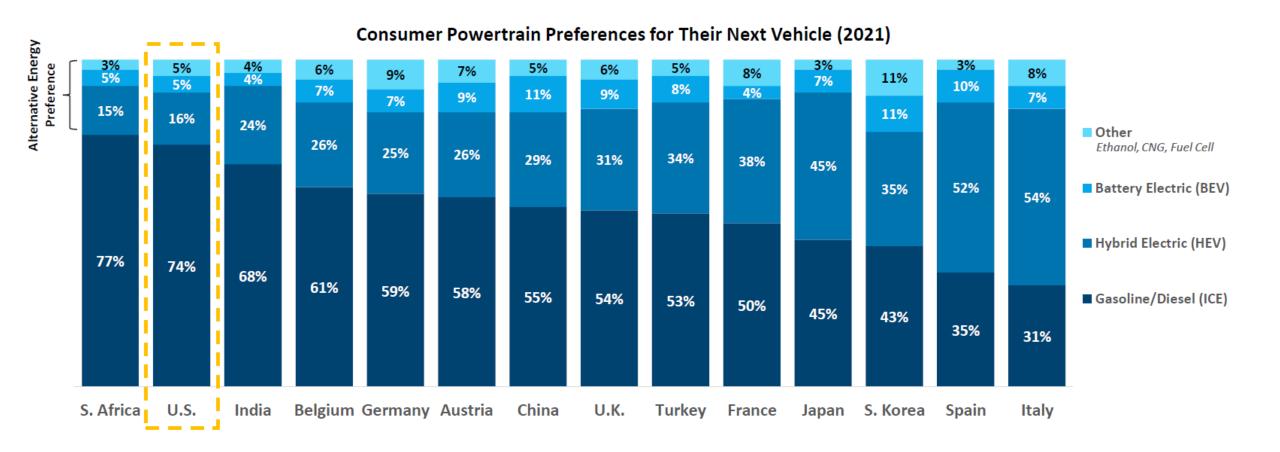




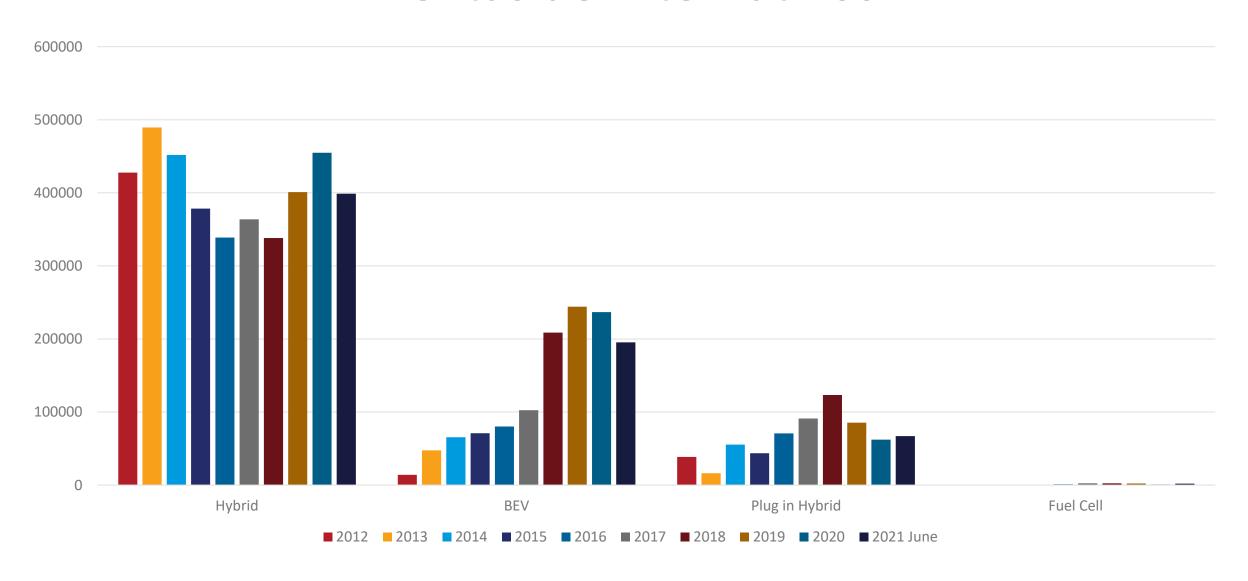




#### Preferencia de Consumidor



## **Ventas de Alternativos**



# Incentivos para comprar un Eléctrico

Electric Vehicles	Federal Tax Credit	Electric Vehicles	Federal Tax Credit
Audi e-tron SUV	\$7,500	Mini Hardtop Electric	\$7,500
Audi e-tron Sportback	\$7,500	Nissan Leaf	\$7,500
BMW i3 (discontinued after 2021)	\$7,500	Polester 2	\$7,500
Ford Mustang Mach-E	\$7,500	Porsche Taycan	\$7,500
Hyundai Ioniq Electric	\$7,500	All new Tesla models	No longer eligible for federal EV tax credit
Hyundai Knoa Electric	\$7,500	Volkswagen ID.4	\$7,500
Jaguar I-Pace	\$7,500	Volvo XC40 Recharge	\$7,500
Kia Niro EV	\$7,500	Mini Hardtop Electric	\$7,500



EV sales		
State	EV sales in 2020	Population in 2019*
California	110,116	39,512,223
Florida	17,729	21,477,737
New York	15,800	12,617,821
Texas	12,188	7,287,717
Washington	10,464	19,453,561
New Jersey	10,381	7,614,893
Massachusetts	7644	8,882,190
Illinois	7059	5,758,736
Colorado	6459	4,217,737
Maryland	6251	6,045,680
	l	l
Nebraska	525	1,934,408
Idaho	487	3,017,804
Arkansas	341	1,068,778
Montana	276	2,976,149
West Virginia	232	731,545
Mississippi	212	884,659
Alaska	127	1,787,065
South Dakota	113	578,759
Wyoming	92	761,062
North Dakota	65	1,792,147

# EV sales as % of total vehicle sales

State	% EV sales 2020
	10.41%
District of Columbia	7.63%
Washington	6.65%
Hawaii	6.33%
Oregon	6.19%
Colorado	4.72%
Vermont	3.81%
Massachusetts	3.81%
Maryland	3.52%
Nevada	3.44%
1	1
lowa	0.76%
Wyoming	0.68%
Alabama	0.64%
South Dakota	0.48%
West Virginia	0.47%
Arkansas	0.44%
Louisiana	0.40%
Mississippi	0.33%
North Dakota	0.29%

## **Tesla Actualmente**



El grande de los fabricantes eléctricos – hasta el momento.



241,300 unidades entregados (primer 3 trimestres)



\$1,62 mil millones de ganancias en el tercer trimestre – (\$875 millones son ganancias de créditos)



Margen: 30.5%



Valor de la compañía – 1.10 billion

# **Tesla Ventas Históricos**

	Ventas Tesla	Ventas Total	Tesla Market Share
2012	1,754	14,441,800	0.01%
2013	18,277	15,524,800	0.12%
2014	14,281	16,437,000	0.09%
2015	25,245	17,386,047	0.15%
2016	42,154	17,465,020	0.24%
2017	45,956	17,134,733	0.27%
2018	162,545	17,215,163	0.94%
2019	177,589	17,108,156	1.04%
2020	183,466	14,463,935	1.27%



# Ventas de Eléctricos - Septiembre acumulado

TOP 10	
EV registrations in the months of 2021	first 8
Tesla Model Y	105,445
Tesla Model 3	80,681
Chevrolet Bolt EV	22,799
Mustang Mach-E	15,938
Volkswagen ID4	10,685
Nissan Leaf	10,238
Hyundai Kona	7,349
Porsche Taycan	6,822
Tesla Model S	6,212
Audi E-tron	5,612
Source: Experian	

Tesla % de Ventas **68%** 

Ventas de Tesla 186,306

Tesla entregas total **241,300** 

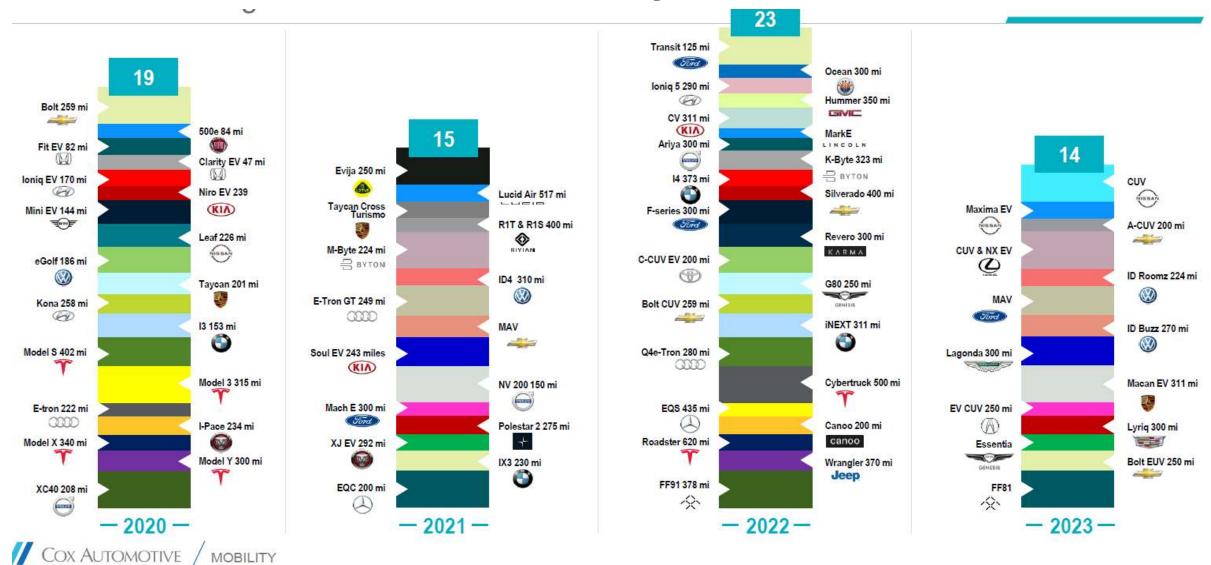
# Ventas de Alternativos y Ventas Futuros

Top Registered Alternative I	Power Models
Toyota Prius*	2.0M
Tesla Model 3	386K
Lexus RX EV	190K
Tesla Model S	164K
Chevrolet Volt	142K
Ford C-Max	124K
Honda Insight	120K
Nissan Leaf	115K
Kia Niro	97K
Tesla Model X	91K

<sup>\*</sup>Some models include rebadged variants and other similar models. See index.

Sales Forecast for Select Alternative Power Vehicles (2021–2028)			
Tesla Model Y	1.2M		
Tesla Model 3	747K		
Toyota Prius	553K		
Nissan Ariya	236K		
Chevrolet Bolt EUV	224K		
Ford Mustang Mach E	212K		
Tesla Model X	175K		
Chevrolet Bolt EV	170K		
Tesla Cybertruck	143K		
Honda Insight	128K		

# Los Eléctricos ya Vienen



## Pronósticos de Eléctricos

The Biden administration is targeting EVs, PHEVs and fuel cell vehicles to make up:

50%

of new passenger car and light truck sales by 2030.

This is voluntary and not a mandate.

August 2021

SEMA forecasts that EVs, hybrids, PHEVs and CNG/fuel cell vehicles will make up

33%

of new passenger car and light truck sales by 2030.

Expected to hit 45% by 2035. Traditional engines will still be dominant for the near future.

U.S. EV sales could reach high of

32%

of all new light vehicle sales by 2030.

**IHS Markit** 

June 2021

Green Car Reports estimates just EVs to hit

15%

of sales by 2025 in their most conservative scenario.

**Green Car Reports** 

May 2021

Goldman Sachs estimates EVs will reach

20%

of total U.S. light vehicle sales by 2025.

**Goldman Sachs** 

March 2021

## Estudio de IHS Markit

Europa: 2030 – 50% eléctricos

China: 2030 – 40% 2050 – 100% eléctricos



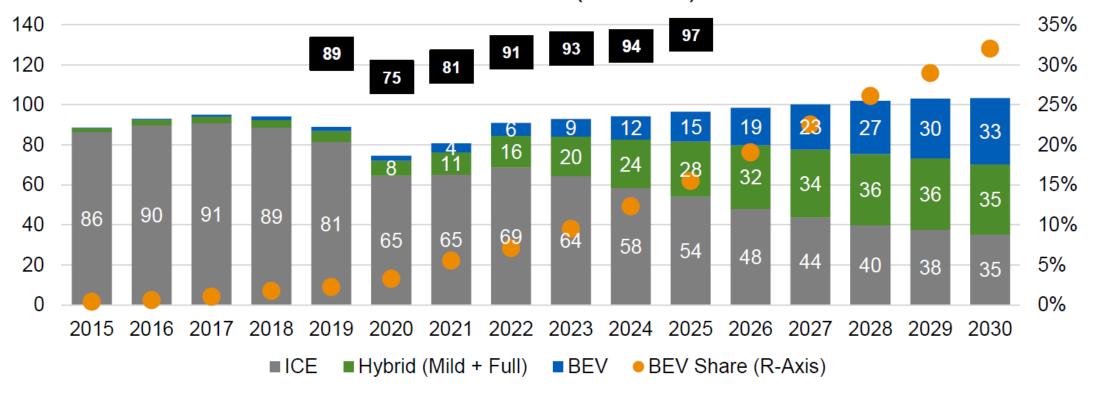
- Tema de "range anxiety" deja de ser problema en 2030
- Para 2030, el precio no será un obstáculo para restringir las ventas de vehículos eléctricos.
- La generación de electricidad y la infraestructura siguen siendo los principales desafíos para la adopción masiva de vehículos eléctricos en todo el mundo (especialmente en Europa).



# Los motores de gas han alcanzado su punto máximo

#### **Light Vehicle Production by Propulsion Type**

2015 – 2030 (millions)



#### Mezcla de Vehículos Futuro

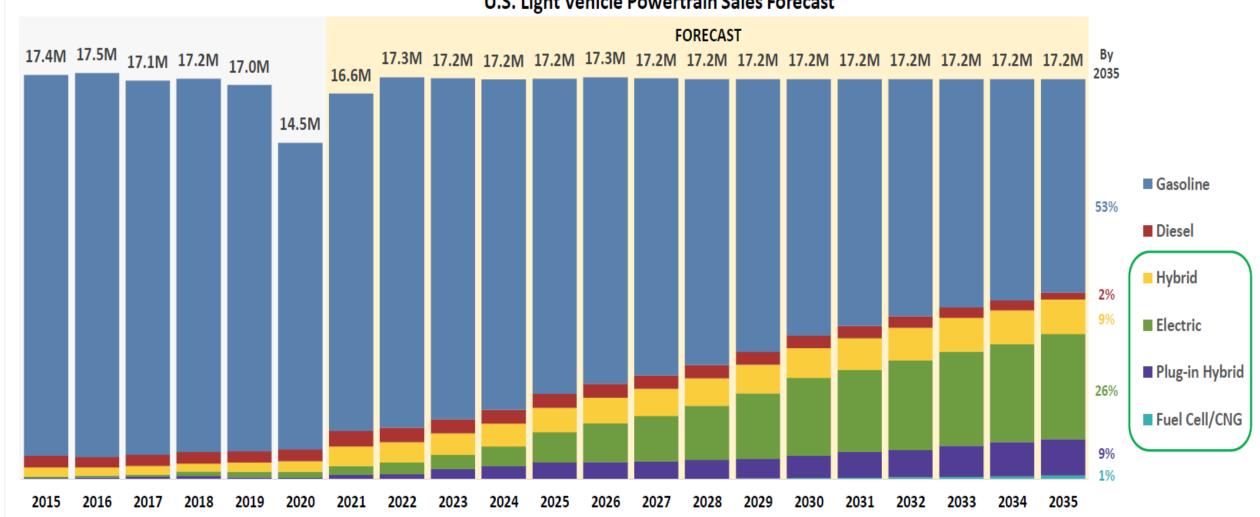
New U.S. Light Vehicle Sales by Vehicle Type

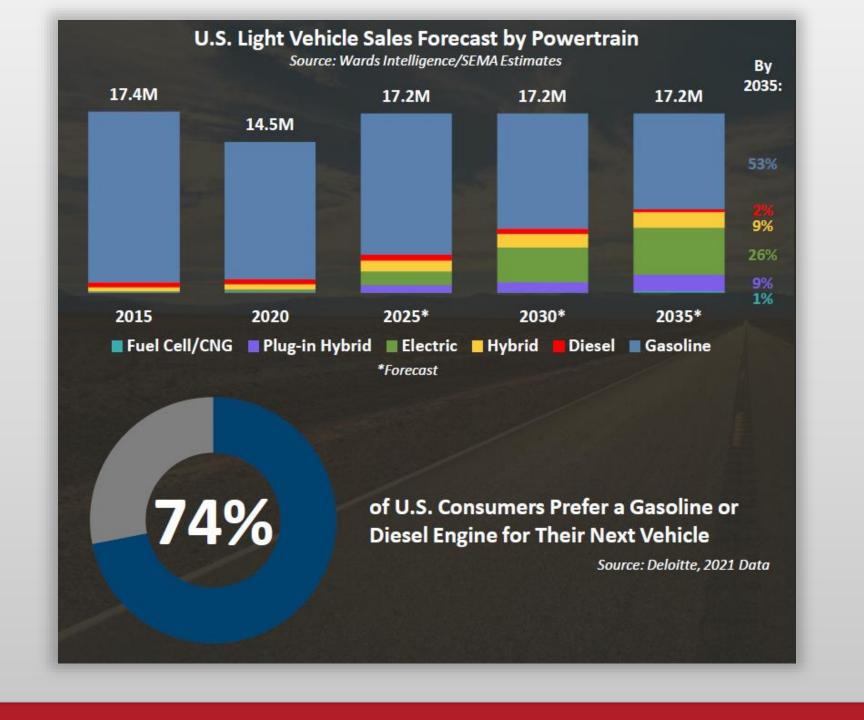


130 Modelos de CUV's 170+ Modelos entre 2021 - 2028

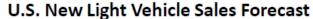
# Ventas por tipo de Motor

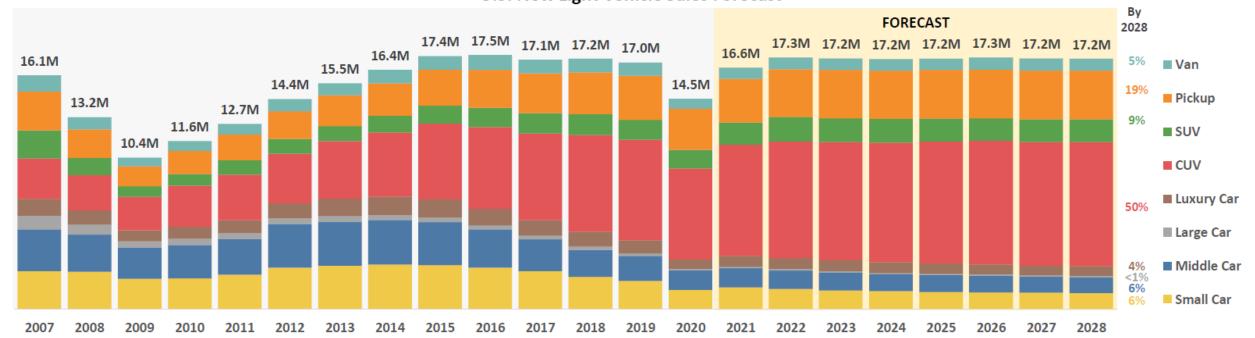
#### U.S. Light Vehicle Powertrain Sales Forecast



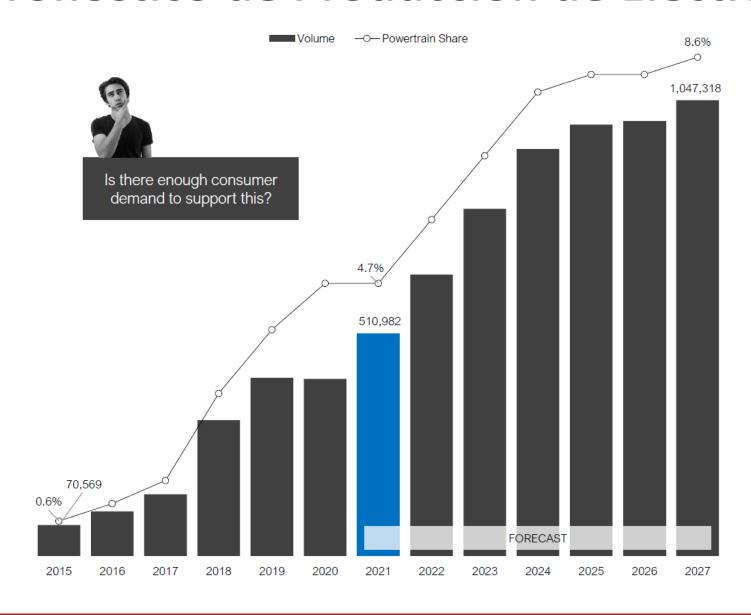


# Pronóstico de ventas por Segmento



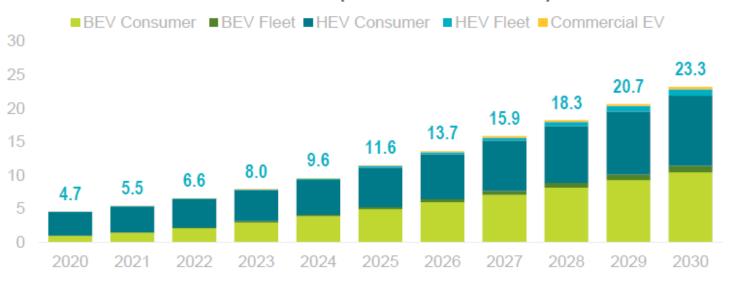


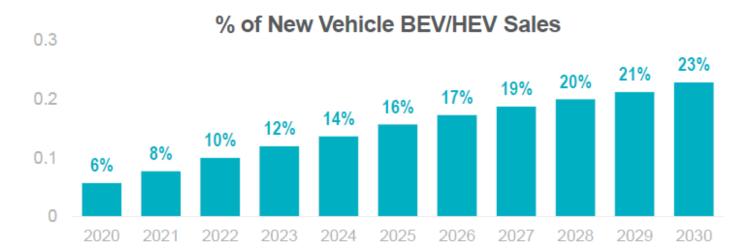
# Pronostico de Producción de Eléctricos



#### **CAR PARC ELECTRIFIES**

#### EV Car Parc (millions of vehicles)





Note: BEV is defined as pure electric vehicle and HEV is defined as full hybrid

# Consideración Eléctrico por Marca

BEV Consideration by Current Vehicle Brand

(Very Likely + Somewhat Likely; lists limited to active brands meeting sample threshold; color scaled by column)

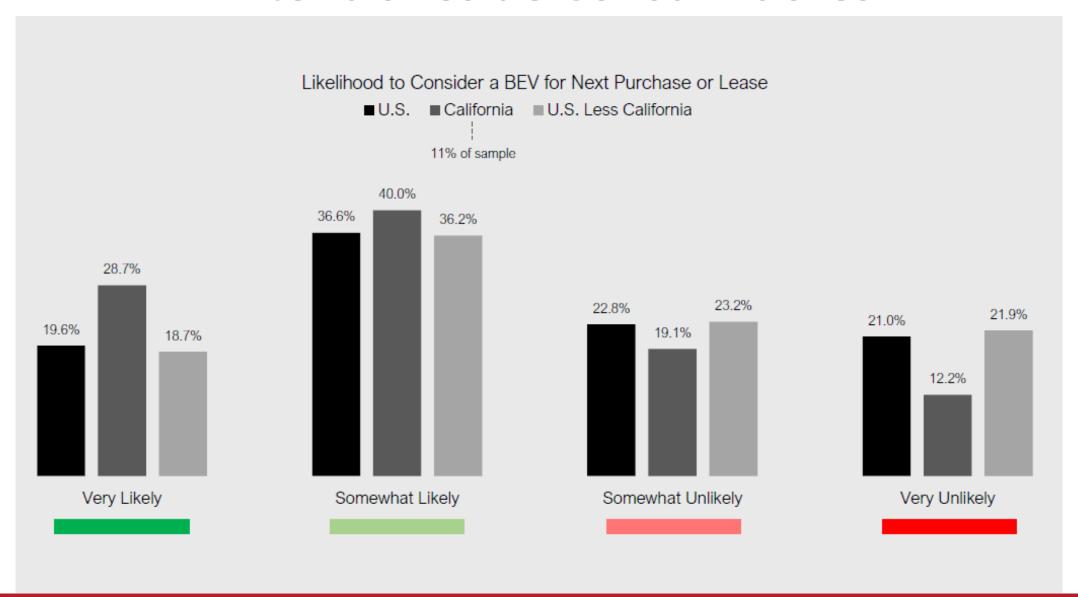
#### Mass Market

Volkswagen	60%
Kia	59%
Mitsubishi*	58%
Toyota	55%
Honda	55%
Ford	54%
Nissan	54%
Mazda	53%
Dodge	53%
Hyundai	52%
Chevrolet	51%
Buick	51%
Jeep	46%
Subaru	43%
Chrysler	42%
Ram*	39%
GMC	36%

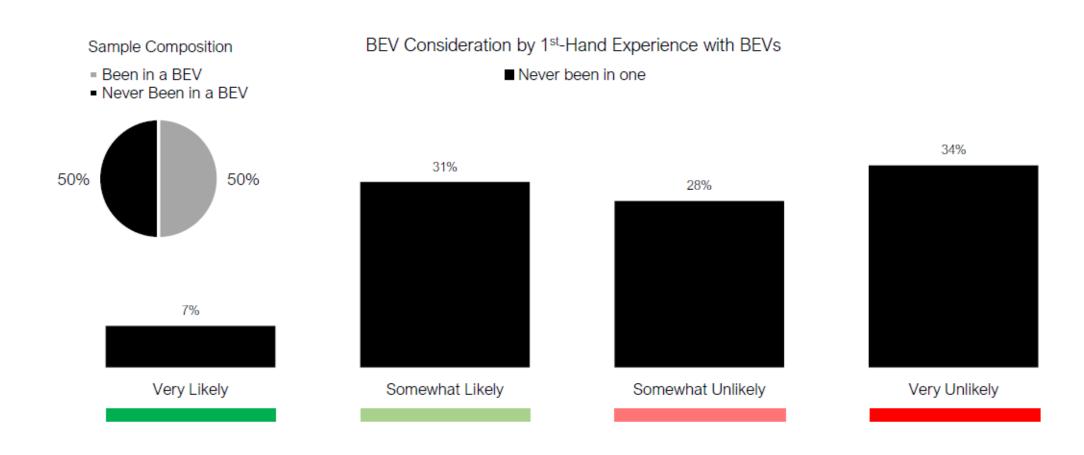
#### Premium

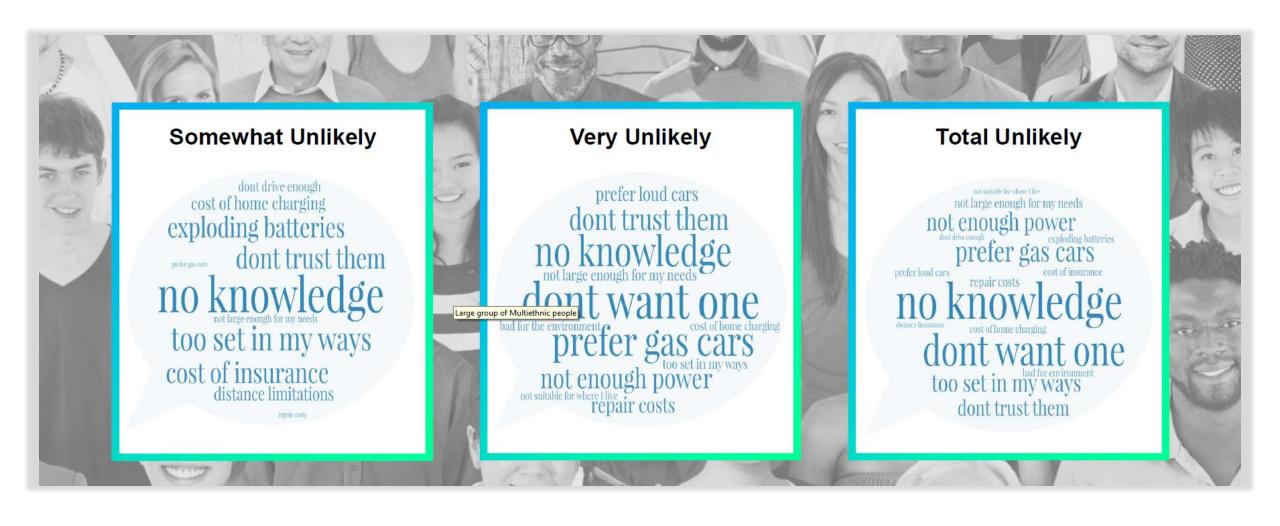
Tesla*	96%
Audi	80%
BMW	79%
Acura	67%
Lexus	64%
Mercedes-Benz	58%
Cadillac	57%
Volvo*	53%
Infiniti*	49%
Lincoln*	46%

## Intenciones de Consumidores



# Intenciones de Consumidores











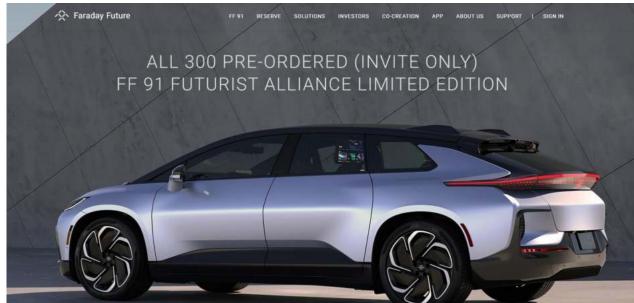














#### **ALL ELECTRIC. ALL F-150.**

F-series is America's best-selling truck for 44 years\* for a reason. And now, it's charging into the future with the all-new, all-electric 2022 Ford F-150 Lightning. It's the first ever F-Series

# Implicaciones de la Política Gubernamental

- El gobierno propone ampliar los créditos fiscales.
- La izquierda quiere grande cambios para combatir el calentamiento global.
- No hay consenso sobre como avanzar de manera bipartidista.
- EE.UU. esta en un camino de autos eléctricos el gobierno y los fabricantes están alineados.



# Objetivos de electrificación

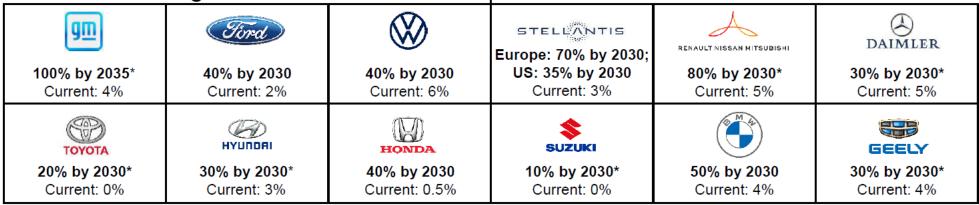
# OEMs targeting aggressive BEV goals by 2030

#### Commentary

- Top 12 OEMs account for ~80% of global production.
- If each OEM achieved their stated 2030 targets, global BEV share would reach ~41%
- Top 12 OEMs would account for ~36M BEVs in 2030, remaining OEM production would be ~6.5M.

# 2030 BEV Share Based on OEM targets ICE Variants BEV / Fuel Cell

#### 2030 OEM BEV Targets



Significant hurdles must be overcome in order to achieve targets over the next decade



# **OEM ELECTRIFICATION TARGETS: SHORT-TERM**

#### Stated OEM Global/North American Goals

As of June 2021

GM: New 2022 Chevrolet Bolt EUV and revised Bolt EV released. GMC Hummer EV production delayed until late 2021.

**BMW:** Expected to show new M-badged electric car.

Ford: Full production starts of F-150 Lightning. Hybrid Mustang expected for model year 2023.

2021 2022

Stellantis: Plans to launch 10 electric/hybrid models across obrands by EOY.

Jaguar Land Rover: Testing hydrogen fuel cell concept in 2021 or early 2022.

Ford: Ending production of diesel V6 F-150 model.

Mercedes-Benz: 10 new electric models through EQ brand.

In the short-term, manufacturers are planning on adding more electric and hybrid models to their lineup. While they are expecting sales of these vehicles to increase, traditional combustion engines will continue to dominate their sales for the near future.

**GM:** Electric light-duty Silverado and Sierra models expected in 2023/2024.

Nissan: Plans to launch 8 electric models. Hopes to to sell 1 million hybrids or EVs per year globally.

2023

Mazda: Plans to debut 2 plug-in hybrids by EOY.

**Honda:** New crossover EV, in partnership with GM, rumored to start production.

Acura: New EV, in partnership with GM, rumored to start production.

2024

**Land Rover:** First all-electric vehicle expected.

**Volvo:** All-electric successor to XC60 expected.

) Jaguar: Plans to be all electric.

VW: 1.5 million EVs by EOY across all brands.

Audi: 30 alternative power vehicles by 2025, including 20 EVs.

**BMW:** Expects 15–25% of global sales to come from alternative power by 2025.

Ford: Investing \$29B in EVs through end of 2025.

Land Rover: 6 EV models by EOY.

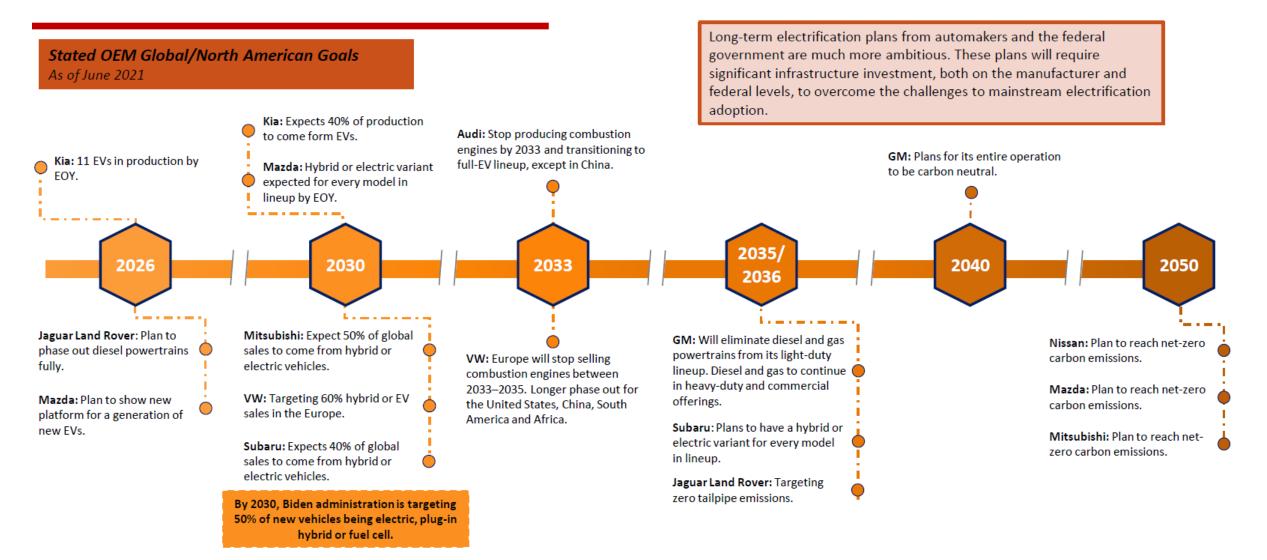
2025

**GM:** Investing \$27B in EVs by 2025. Planning 30 EV models globally, 20 in North America.

**Toyota:** 60 new hybrid, electric, or fuel-cell vehicles by the end of the year. Selling 5.5 million offerings each year.

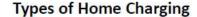
Volvo: Pledged to put 1 million hybrid or electric vehicles on the road by EOY. Expects 50% of global sales to come from EVs.

# **OEM ELECTRIFICATION TARGETS: LONG-TERM**



### **REAL EXAMPLE: HOW LONG TO CHARGE A MACH-E?**

Charging time and range gained, particularly outside of a fast-charging station, varies by vehicle model, charger type and outlet used. Using a charger on a regular home outlet takes a significant amount of time, making topping off quickly unlikely. But even a fast charger takes some time to fully charge at home. Look at the 2021 Ford Mustang Mach-E, for instance:



#### Ford Mobile Charger

Using standard 120V outlet (Level 1)

Charger included with new car

#### Ford Mobile Charger

Using 240V wall outlet\* (Level 2)

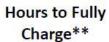
Charger included with new car

#### Ford Connected Charge Station

240V/48A\*

Station costs \$799 (MSRP)

\*Likely incurs additional set-up costs if house isn't already equipped with 240V outlet (\$850-\$2,200)





15 Hours 20 miles/hour



<sup>\*\*</sup>Charging time varies by a number factors, including trim/range, weather and battery health.



2021 Ford Mustang Mach-E

Trim/Package	EPA Range Estimate
Select	211–230 mi.
California Route 1	305 mi.
Premium	211–230 mi. (std. range) 270–300 mi. (ext. range)
GT	260–270 mi.

### COSTS FOR CHARGING ELECTRIC VEHICLES

#### **Level 1 Charging**

#### Level 2 Charging

#### **DC Fast Charging**

#### Time/Range

#### Slow

3–5 miles of EV range per hour.30–50 miles of range overnight.Full charge can take days.

#### Medium

**18–28 miles** of EV range per hour. **Full charge** overnight or longer.

#### **Fastest Available**

**80% charge** in 20–40 minutes. **Full charge** potentially in 60–90 minutes. Limited by EV models. Few public locations able to deliver maximum power possible.

#### Location

#### **Primarily Residential**

Very few built for public use. Some public garages have usable outlets.

#### Residential, Public, Work

Most prevalent type of public charger in United States. Available in many popular public locations.

#### Commercial, Industrial

Limited because of high cost and power draw.
Usually located near interstates for road trips.
May grow significantly in coming years.

#### \$

**Cost Per Charge** 

Just electricity costs.

Overnight: \$1.33 (13.3¢ per kWh average)

Full charge: \$1.20–\$13

(varies by size/rate/model)

#### \$\$

Varies. Some locations free, others have fee. **Public chargers**: \$.20–\$.30 per kWh

(\$1–\$5 per hour) **At home full charge**: \$6–\$10

#### \$\$\$

Expensive. Charge by minute or by kWh.

Billing rates vary: \$.10-\$1 per kWh

(\$.35 per kWh national average)

Full charge: \$10-\$30

#### Investment Needed

#### None

Level 1 chargers typically included with vehicle and uses regular 120V outlets.

#### **Investment Needed at Home**

Requires additional equipment/installation. Price varies, but typically ranges from \$850–\$2,200 on average for parts and labor.

#### Significant Investment

Not suitable for home use. Typically costs \$28,000-\$140,000 per station in electrical sitework, equipment and labor.

# **About 43,000**

38,000 Level 2 Charging Stations 5,000 DC Fast Charging Stations Across United States (as of August 19, 2021)

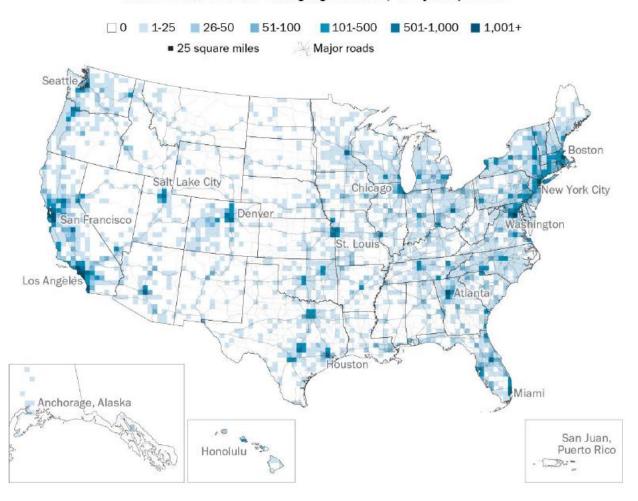
VS.

**About 115,000** 

Gasoline Stations in the United States

#### Map of Public EV Charging Stations in the United States

Level 2 and DC Fast Charging Stations, as of May 2021



# EV BATTERIES ARE NOT AS GREEN AS ADVERTISED

Here are a few of the key materials that go into EV batteries:



#### Cobalt

- 60% of global cobalt supply is in the Congo. It's estimated that more than 40,000 children are used to mine the element.
- Chinese companies control 85% of the operations in the country.



Lithium

- Primarily mined in Argentina, Bolivia and Chile.
- Attributed to reduction of agricultural zones and soil contamination.
- Has led to water wars, social unrest and mine strikes throughout South America.



Nickel

- Turning oceans and water beds in Indonesia red from the mining.
- Deep-sea bed mining in Fiji has disrupted ecosystems, pushing the government to outlaw the practice.

While the media often hypes the environmental benefits from electric vehicles, there are still important environmental and social concerns that arise from their production—particularly batteries. The raw materials used in EV batteries are often concentrated in third-world and less stable countries. Cobalt, for instance, is mainly located in the Congo and mining there has often employed child labor. Lithium and nickel mining in both South America and southeast Asia have led to environmental damage and social unrest.

While these are the same materials that typically go into a cell phone battery, a single EV battery can weigh around 500kg (more than half a ton). Increasing the number of EVs will only exacerbate these problems unless more sustainable mining methods are implemented.

Additionally, Chinese companies (often state owned) control most of the markets and trade flow for these raw materials. Given the disruption that the COVID-19 pandemic caused to the global supply chain, this can be extremely problematic to future production unless changes are made to how these materials are supplied.

The batteries in an average sized EV weigh around 500kg or more than half a ton. Increased EV production will necessitate a huge jump in rare earth mineral mining and processing.

Environmental and human-rights issues aside, raw materials are also disproportionally concentrated in a small set of markets (usually developing, less stable countries). Chinese companies dominate the harvesting and production of these raw materials in these markets.

# THERE ARE STILL QUESTIONS ABOUT NEW EV TECHNOLOGY

Less Parts = More Reliability

Average Number of Moving Parts in Drivetrain

2,000+

≈20

**Internal Combustion** 

Electric

Electric vehicles tend to have fewer moving parts than traditional vehicles, which means less general maintenance (and costs) over the course of owning them. On principle, they should be more reliable. However, its not clear what the lifespan of these vehicles (and their batteries) is.

These vehicles are also newer platforms, so expect more recalls as manufacturing defects are likely to emerge as more models are released. GM recently recalled all Chevrolet Bolt EV models because of manufacturer defects in their batteries that increased fire risk.

In general, electric vehicles are no less safe than a regular car or truck. However, recent high-profile accidents and fires involving electrics have brought more attention to these vehicles. While the overall risk of a fire is low, EVs have more potential dangers in the event of a fire. For one, because of their batteries, they burn a lot hotter and for a lot longer—often requiring specially trained firefighters to put them out. This will be a difficult challenge for local cities as electrics (and hybrids) become more common.

#### Risk of Fire

While overall risk is low, electrics pose new challenges...

5,000°F+

Temperature EV fires can reach because of batteries. Compare to 1,500°F for a traditional car.

31%

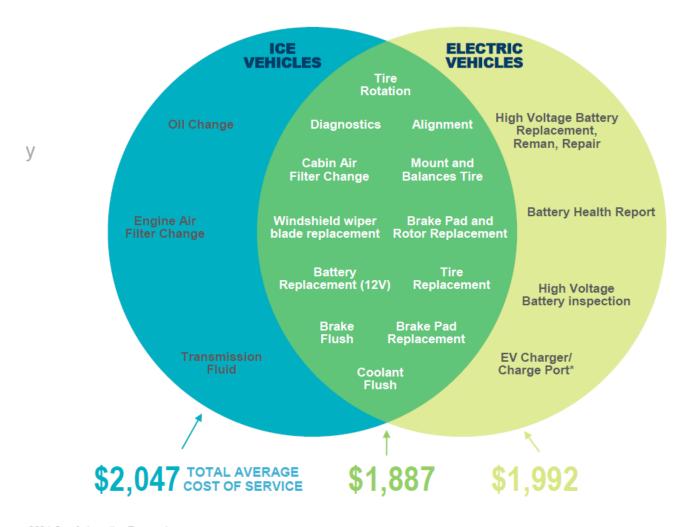
Of firefighters say they don't have the specific training needed to handle EV Fires.

**30K Gallons** 

A Tesla fire in Texas took more than 4 hours to put out and took 30,000 gallons of water. A typical car fire takes 30 minutes and 500–1,000 gallons.

In July 2021, GM Recalled 69,000 Bolt EVs globally (51,000 in U.S.) because of a manufacturer defect that increases risk of battery fire. They subsequently recalled all Bolt EVs for the same problem.

# Motores de Gas/Eléctricos - Costo de Reparaciones



# Estudio de Eléctricos – Encargado por NADA

- Estudio para comprender futuro adopción de eléctricos.
- Evaluar su probable impacto en las operaciones del concesionario.
- Tomar las medidas adecuadas para estar preparado para el impacto de eléctricos.
- El propósito no es discutir los méritos o la política de los vehículos eléctricos.



# Estudio de Eléctricos – Impacto a Concesionarios

- Levemente negativa mediano y largo plazo.
- Volúmenes disminuyen debido a nuevos jugadores.
- Percepción que concesionarios no pueden vender eléctricos.
- Consumidores ven modelo de Tesla ideal
   y el proceso de concesionarios negativo.
- Capacitar vendedores para vender vehículos eléctricos es desafío.
- Eventual disminución de los ingresos de servicio y repuestos – mitad de los ingresos de un motor gasolina.

# Estrategias de los Fabricantes

- Varios fabricantes proponen cambios al canal de venta de eléctricos – venta directa
- La propuesta son alternativas a los pedidos, ventas y entrega de eléctricos.
- Fabricantes Percepción que compradores de eléctricos son diferentes
- Comisiones fijos para los concesionarios



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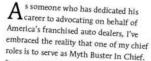
# Dealers are "All In" on Electric Vehicles

by MIKE STANTON

ON ELECTRIC

**VEHICLES** 

DEALERS AND NADA ARE



For years, one of the great myths that has persisted about the auto industry has been that franchised dealers don't want to sell electric whiches. It's long past time to put this myth out to pasture. And it's time to call it out for what it is: A lie about franchised dealers, propagated by the handful of companies that want to destroy the franchise system.

Before we get into why this myth persists, and why it's morphed into such a blatant lie, let's acknowledge something right at the outset. More than a decade ago, there was indiced some dealer uneasiness about battery-electric vehicles. The EVs of the early and mid-2000's

For years, one of the great myths that has persisted about the auto industry has been that franchised dealers don't want to sell electric vehicles. It's long past time to put this myth out to pasture. And it's time to call it out for what it is: A lie about franchised dealers, propagated by the handful of companies that want to destroy the franchise system.

were-let's face it-by and large compliance cars.
They had inadequate range, took forever and were
a pain to recharge, did not perform well, had terrible resale
value, and were extremely expensive.

But it wasn't that dealers didn't want to sell them to willing customers. It was that dealers didn't want to be force fed whiches that CBMs were manufacturing largely in response to regulatory pressures as opposed to actual market demand. Given the imbalance in the CBM dealer relationship, which gives dealers little power to avoid any such CBM force feeding, you can hardly blame dealers for this early treplation.

But that was a long, long time ago. The world has changed considerably. These vehicles have changed considerably. These are hardly compliance cars any longer. The level of investment and commitment that traditional automakers have made in battery electric technology is night-and-day different than it was even five years ago, and it shows in the product.

A number of other things have also changed. Across the country, more charging stations with faster charging capability are popping up almost every day, and it's entirely possible that the federal government will appropriate hundreds of millions of dollars to grow the nation's recharging infrastructure significantly. On top of this, we are rapidly approaching price parity. Owning an EV for the long haul is now a vasity different proposition than it used to be. These are hugely positive developments.

One other major thing that has changed dramatically over the years? Dealer attitudes toward selling and servicing FVs. Francheed dealers aren't at all EV-checkrant, and haven't been for years, And they certainly aren't anti-EV. Anyone that tells you differently just fan't telling the truth. How do we know this? Cadiffer.

Last fall, after Cadillac announced plans to abandon internal combustion engines altogether and move entirely to battery electric drivetrains, the nation's 880 Cadillac dealers faced a choice.

If they bought into Cadillac's vision for an all-electric future, they could pony up a minimum of \$200,000 of their own capital for the in-store charging infrastructure,

tooling and training that Cadillac was mandating. Conversely, if they either didn't want to be part of that all-electric future, or they simply didn't want to make the required investment, they could accept a buy-out from the automaker, and wind down their franchises.

What happened next wasn't surprising to anyone who really understands dealers and how their thinking has evolved.

More than 80% of Caddlac dealers said they were all in—not just to sell EVs, but to sell exchariety EVs, and they backed up that commitment with significant capital investments that will take time to mature. Most of the 20% that opted out were

small stores in markets where Cadillac ham't performed well, and most of these dealers accepted the buyout because of economic conditions on the ground, not out of concern about the brand's future product plans. And certainly not because they were anti-electric.

And so, in one fell swoop, America's Cadillac dealers completely debunked the myth that franchised dealers don't want to self and service electric evhicles. Because if this myth were even remotely true, virtually every Cadillac dealer out there would have gladly taken the buyour, and done so in a heartbeat.

What's more, the enthusiasm toward EVs among the franchised dealer body is hardly unique to Cadillac. In fact, franchised dealers of other brands with EVs in their lineups have been making these same commitments and investments for years—and not reluctantly. They have

done so because they don't want to lose sales to other brands as more and better EV customers come to the market,

So why does this myth persist? I think it's simple. EVs still don't yet sell in the numbers that environmentalist want, and many groups feel as though they need a boogeyman to blame for fledging sales. They can't blame consumers for thus far being cool to zero-emission whiches, because it's not exactly a winning public relations strategy to blame your customers for the fact that your preferred product in't flying off the shelf. They can't blame the automakers, because without them there would be preckely zero zero-emissions vehicles available for sale to begin with. Dealers became an casy and convenient scapegoat.

And the myth lingered, Now, however, It's taken a new and more dangerous life as a lie designed to take down the franchise system. In face, Rivian, Lucid and Lordstown Motors seem to have hung their entire pitch for direct sakes on this lie about franchised dealers and their supposed reluctance and inability to sell EVs.

We know that nothing could be further from the truth, but it isn't hard to unpack why this is their line of attack.

Direct sales have never once benefited consumers with lower prices, more convenience or better service and maintenance, despite the marketing. And they never will, because direct sales are ultimately only about creating a vertical channel for manufacturing, sales and service that allows a single entity to control everything. Including prices and margins, to the obvious detriment of consumers. In fact, if direct sales were adopted for EVs, then EV buyers—and only EV buyers—would be denied the service network and price competition that ICE-vehicle buyers have enjoyed for decades.

Direct sales are not needed for EVs. In fact, over time, direct sales could cripple EV adoption as more and more EV owners are forced to deal with higher prices and the headache of longer and longer wait times for even basic service.

But do you know what is needed for sustainable EV sales to consumers up and down the pricepoint chain? A large, expansive network of retailers and service providers who are experts at marketing locally, and who are invested in the future sales and service opportunities that these products promise.

Fortunately for automakers, consumers and

policymakers alike, that network already exists.

Dismantle the big lie about EV sales, and what you are left with is the clear truth: Franchised dealers aren't an obstacle to EV sales; they are essential to them.

Dismantle the big lie about EV sales, and what you are left with is the clear truth: Franchised dealers aren't an obstacle to EV sales; they are essential to them.

# **DEALERS ARE**

# ESSENTIAL

TO SPEEDING PUBLIC ADOPTION OF ELECTRIC VEHICLES



NATIONAL AUTOMOBILE DEALERS ASSOCIATION
Visit nada-org to learn more

### Dealers are Essential to Broader EV Adoption

by MIKE STANTON

arlier this year, when Ford unveiled the F-150 Lightning, it did far more than just announce the newest iteration of the most popular and best-selling vehicle in America for the last 40 years. It ushered in a new-and long overdue—era of battery-electric vehicles built not to fill niches within the American car market, but for the bulk of it.

This was a watershed moment in automotive history, and maybe American history. That's because the F-150 Lightning is far more than just a ruck. And it's more than just an electric truck. It's the vanguard of a wave of vehicles that can finally bridge the gap between the battery-electric wehicles we have now, and the BEVs that can truly make an impact on our climate over the long term by appealing to the vast majority of American car and truck buyers in a way that our current EVs simply do not.

Franchised dealers have been waiting for this moment for years. Dealers are "all in" on EVs and incredibly excited about the new electrified products that are being announced almost daily. And dealers are hungry for the sales and service opportunities that are going to come with having numerous new EV models to sell.

And while today's EVs are exceptional, particularly compared to those of just a decade ago, the reality is that almost all of them appeal primarily elither to stalwart supporters of reducing greenhouse gas emissions or luxury which chuyers who want to be on the cutting edge of technology and performance.

One of the great mistakes we make in assessing our progress on converting America's fleet to electric is assuming that today's EV buyers will look like the EV buyers of tomorrow. This simply isn't true.

It is undisputed that Tesla has been extremely successful as selling its products, and the company deserves significant credit for what it has been able to accomplish. But does Tesla's success prove that you can sell EVs in great quantities in America' Does E reveal the path to the mass adoption of EVs.

Short answer: No!

What Tesla has proven is that you can sell Teslae very successfully in America to a certain, and pretty small, subset of our population. To date, American EV buyers are vasily different from ICE-vehicle buyers. In papericular, compared to ICE buyers, EV buyers are much wealthier, much better informed about EVs, and are acquiring their third, fourth or fifth current car.



Not only are America's current EV buyers willing to pay full list price, many of them wear it as a badge of honor that they'e done so. They know exactly what they want so they don't need to talk to a sakesperson, either about the car or about financing. And because they tend to have multiple vehicles in their personal or family flect, they are much more likely to be willing to wait for delivery, live with range limitations, live with the time and planning it takes to recharge, and deal with service delays.

But this buyer type is not likely to dominate the EV market over the coming years. Why? Because the webicles are changing. And as the EV market leaves inxury niche status and enters the mainstream, its customers will come to resemble the average car buyer more and more.

This is a good thing! We should all be estatic that going forward, when we talk about how to foster adoption of EVs in the U.S., we won't be talking exclusively about how to market \$120,000 sports cars and luxury 5UVs, or vehicles that compromise on utility, but instead will be talking about how to best market \$40,000 pickup trucks—that just so happen to be electric.

It's the EV customers of the future who we need to cater to if we are to have meaningful and broad EV adoption. And we can finally start to think realistically about doing so. We are essentially at the doorstep of selling EV-real, functional, non-niche EV-to mass-market categories for the first time ever. AeV to -to mass-market to mass-market buyers, you need to capitalize on what has worked for mass-market buyers for generations.

Things like consumer education about the product, help with comparing models, working with a customer's budget constraints, financing assistance, helping with trade-ins, allowing test drives, and—yes—even good-old-shakined tire kicking. And this is all in addition to the new challenges specific to EVs, such as the complexities of charging—the fact, for instance, that decrite rates vary based on the time of day and the level of charge—and other variables that don't exist in the ICE market.

Dealers are absolutely essential in this world of new EVs. Because once you get past lixury vehicles and into the mass market, you will not achieve broad acceptance of any One of the great mistakes we make in assessing our progress on converting America's fleet to electric is assuming that today's EV buyers will look like the EV buyers of tomorrow. This simply isn't true

product, regardless of how it's powered, by rejecting the attributes of the sales and service process that mass-market vehicle buyers aren't just accustomed to, but that they deepend on to confidently choose the right vehicle at the right price that best meets all their needs,

We hear a lot of people argue meets all their needs, where a lot of people argue that dealers are an impediment to EV sales in the U.S. This has never been true. And moving forward, this type of thinking won't just be wrong, it will be dangerous—if our goal is, as it should be, to sell a greater number of EVs to a broader segment of the American market.

This is a critical juncture in our march toward a cleaner future. And it's a good time for policymakers and stakeholders at all levels to think critically about what it's going to take to sell EVs in greater volumes to customers who haven't experienced EVs set.

Because the reality is that it's going to take a lot. It's going to take a network of tens of thousands of retail and service points located in just about every corner of the country, not just a website. It's going to take hundreds of thousands of knowledgeable sales staff, not just a 1-800 mmber. And it's going to take hundreds of thousands of highly-trained technicians capable of providing professional service on the spot, not just mobile repair trucks.

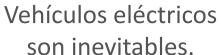
It's going to take dealers. Fortunately, we're already here, and we are raring to go. III

Dealers are absolutely essential in this world of new EVs. Because once you get past luxury vehicles and into the mass market, you will not achieve broad acceptance of any product, regardless of how it's powered, by rejecting the attributes of the sales and service process that mass-market vehicle buyers aren't just accustomed to, but that they depend on to confidently choose

the right vehicle at the right price that best meets all their needs.

# Conclusiones







Infraestructura seguirá siendo un desafío para la adopción



Nunca debemos adelantarnos al consumidor: el consumidor decidirá la demanda de vehículos eléctricos.



Cuando el precio
de los vehículos
eléctricos está a la
par con los
motores de
gasolina, ese
podría ser el punto
de inflexión.

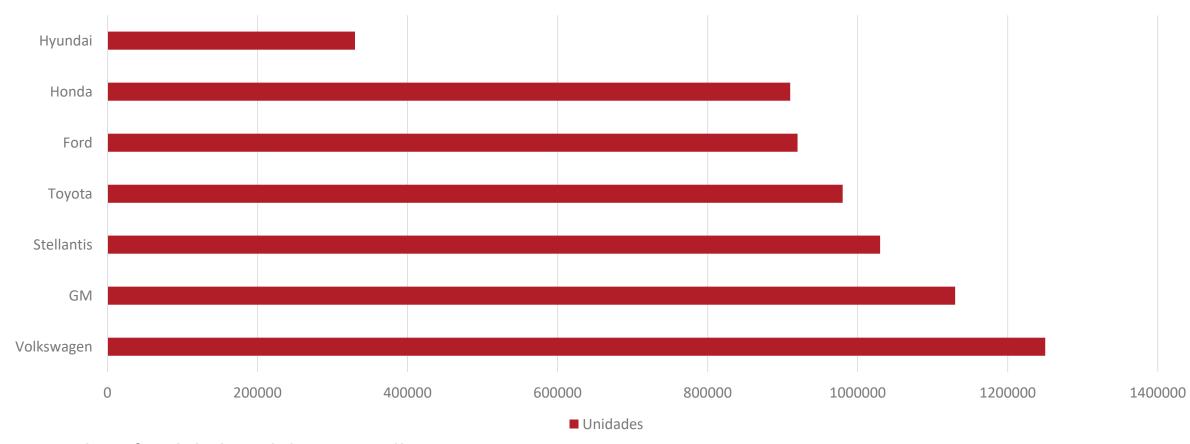


Debemos ser
cautelosos con las
intenciones de los
fabricantes
relacionadas con
eléctricos – Modelo
de Agencia



# Estimado Producción Perdido





#### Producción Global Perdido – 8,9 Millones

Asia – 37% N. América – 33% Europa – 19% Europa Este – 7% S. América/África – 49
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