

# Looking Into Electric Cars

## Session 5: The Market Place



### **Statement by U.S. Energy Secretary Jennifer M. Granholm on 2023 EV Sales**

January 5, 2024

"Today, I'm delighted to celebrate a milestone for American consumers and manufacturers: In 2023, **more than 1.4 million electric vehicles were sold** in the United States — a 50% increase in one year. And since President Biden took office, EV sales have more than quadrupled, with more than four million EVs on the road.

EVs made up 7.6% of all new vehicles sold, **up from 5.8% in 2022** and 3.2% in 2021. EV sales growth slowed slightly during the year, but EVs remain the fastest-growing car sales category.

EVs broke records for both volume and market share in the fourth quarter. Americans bought 317,168 electric cars between October and the end of the year – 8.1% of all new cars sold. EV sales were 52% higher than in the fourth quarter of 2022.



NEWS

**Volkswagen ID.4 receives  
the 2024 MotorWeek  
Drivers' Choice Award**

Teslarati

# Looking Into Electric Cars

Session 5: The Market Place

## **Volkswagen Confirms \$7,500 Federal Tax Credit For ID.4 In 2024**

The incentive will be available for the existing 2023 and upcoming 2024 model year versions.



InsideEVs

## **Breaking news**

It was previously reported that VW would qualify but hadn't done the paperwork yet.

After visiting the Local dealership it became apparent to me that the delay was due to "leftover" batteries from previous model run. It seems they had to manufacture enough 2024 ID4s with a qualifying battery to make the list. This emphasizes the need to check the VIN. Two EVs side by side might have different batteries and only one might qualify for the tax credit.

# Looking Into Electric Cars

## Session 5: The Market Place



For one million dollars

You get one Rimac Concept One  
Or  
40 Chevy Bolts



# Looking Into Electric Cars

## Session 5: The Market Place



Chevy Bolt

IL rebate \$4000 is  
VERY hard to get . Due  
to funding.

OOOOOPS

Basic Chevy Bolt

MSRP \$26,500

Minus the Federal Tax credit -  
\$7500. So the Bolt is \$19,000 ??

( NEW )

So that would be 71 Bolts.

And they say EVs are expensive.

# Looking Into Electric Cars

## Session 5: The Market Place



Chevy Bolt

This bit was fun. But the current Bolt has been discontinued. It will be back after a much needed technology update.

In the mean time the new EV Equinox will be available late this year.

There still are some new 2023 Bolts out there and they get the full \$7,500 tax credit.

# Looking Into Electric Cars

## Session 5: The Market Place



**1LT**

MSRP STARTING AT: \$34,995<sup>†</sup>

AVAILABLE MID-2024

Not the \$20,000 but still economical when considering total cost of ownership. As ALL automotive purchases should be judged by total cost of ownership.

Note worthy specs -range over 300.  
And will have DCFC charging about 3 times faster than Bolt.

- GM-estimated range of up to 319 miles<sup>†</sup> with FWD
- FWD and available eAWD
- 19-inch wheels
- 11.5 kW onboard charge



# Looking Into Electric Cars

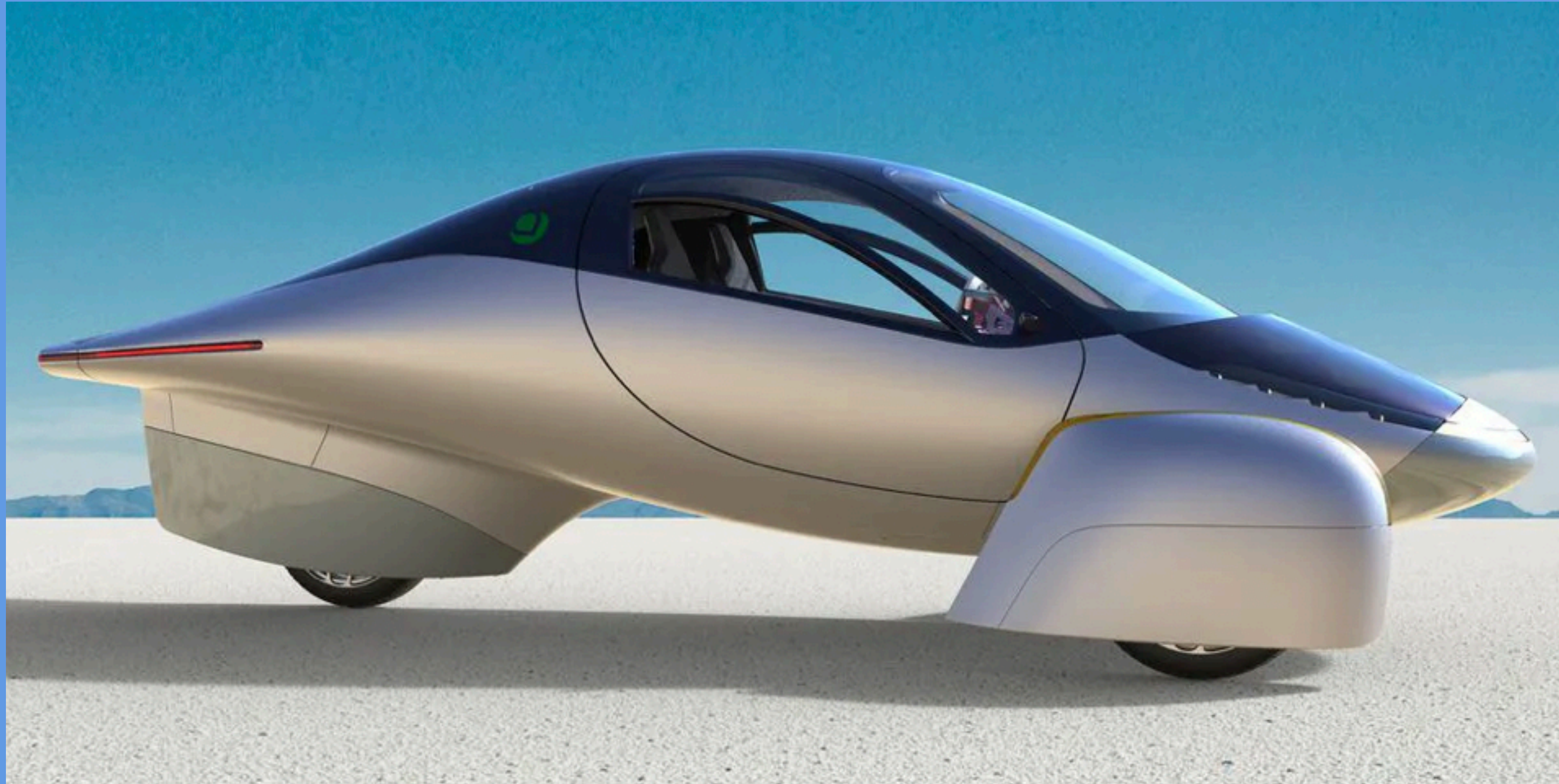
## Session 5: The Market Place

Before going into what is available.  
Lets look at what's out there.

**WAY** out there

# Looking Into Electric Cars

## Session 5: The Market Place



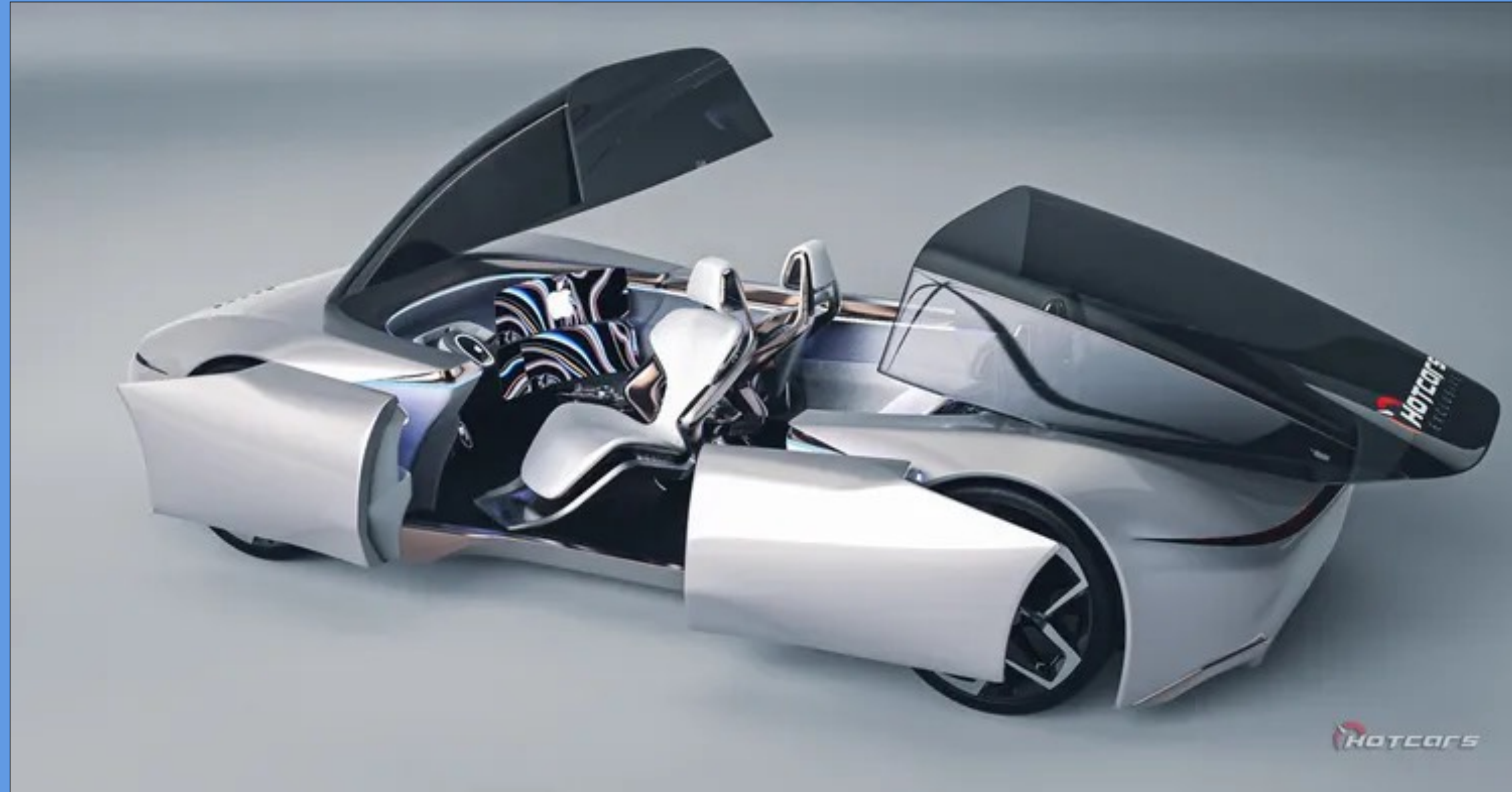
Aptera

I'm not including the odd cars. I keep on the look out for good solid cars. Ones that are designed well and drive well. Preferably just look like a car. PS, Aptera will not qualify for tax credits (its a 3 wheeler)

It actually might do ok on a small island where trips are short and the infrastucture is not well established. The car can go 30 miles by solar alone on good sunny days.

# Looking Into Electric Cars

## Session 5: The Market Place



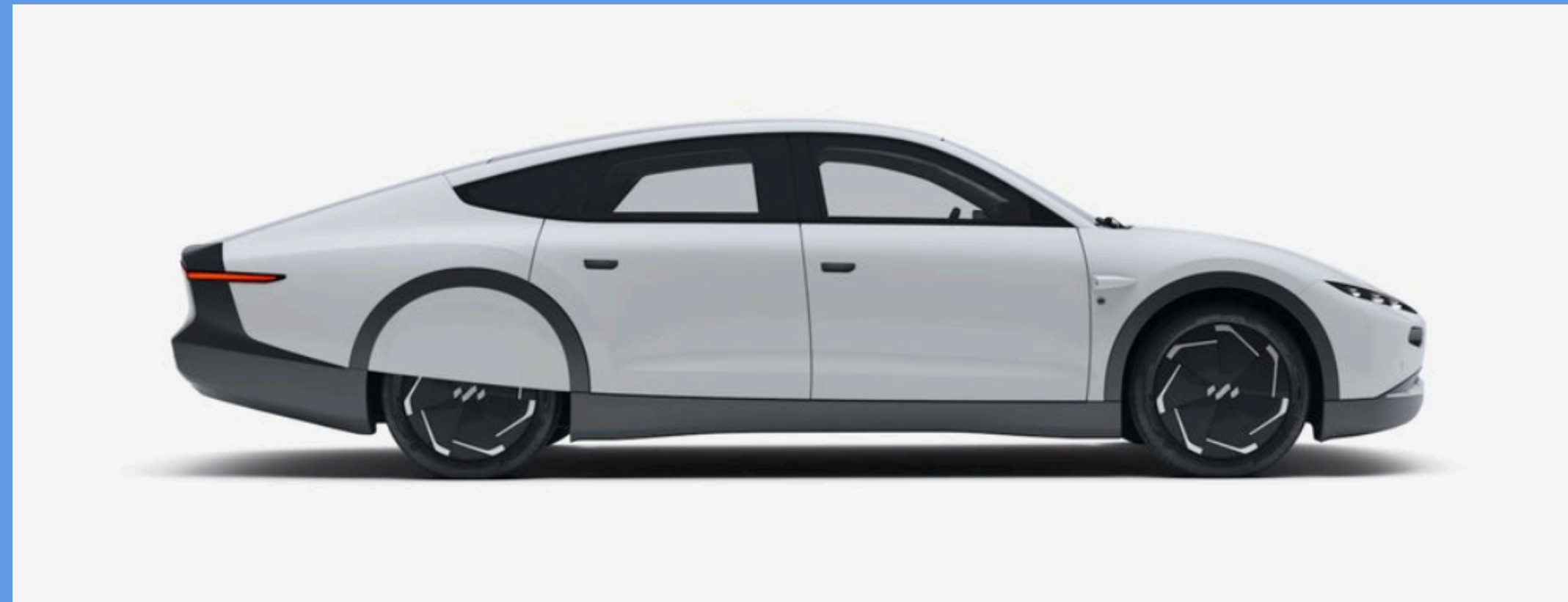
Lots of concept cars are out there - most won't make this list as a matter of price. But if its not in current production - it won't be here. Blame it on the still not available Tesla Roadster

# Looking Into Electric Cars

## Session 5: The Market Place

I'm not including the odd cars.

Solar Powered (Not really) Cars. With practically no solar charge advantage (or extreme price) they fall into the odd car category.



Lightyear Zero

\$262,000

Solar charge = 40 miles a day

Battery range only about 200 miles

Went into Bankruptcy Jan 2023



Sono Motors Scion \$25000

Solar charge = 10 miles a day

Battery range only about 180 mile.

RIP 2/24/2023 - refunds by jan 2025.

# Looking Into Electric Cars

## Session 5: The Market Place



**1,500 MILES PER YEAR**

the Ocean can provide a driving range of at least 1,500 miles per year.

4:14 / 11:36

**Fisker Ocean HUMILIATES the entire Industry**

<https://www.youtube.com/watch?v=Q5gwhS8DHOg>

Fisker Ocean praises its own solar roof. That's actually 4 mile per day. Assumes all days are nice and sunny. At my house that's only ten cents a day.

# Looking Into Electric Cars

## Session 5: The Market Place



### **Fisker Ocean HUMILIATES the entire Industry**

Fisker Ocean praises battery swapping instead of charging. This makes no mention of the time frame of the swaps. Tesla in Europe probably recharges that many cars in less time than today's session.

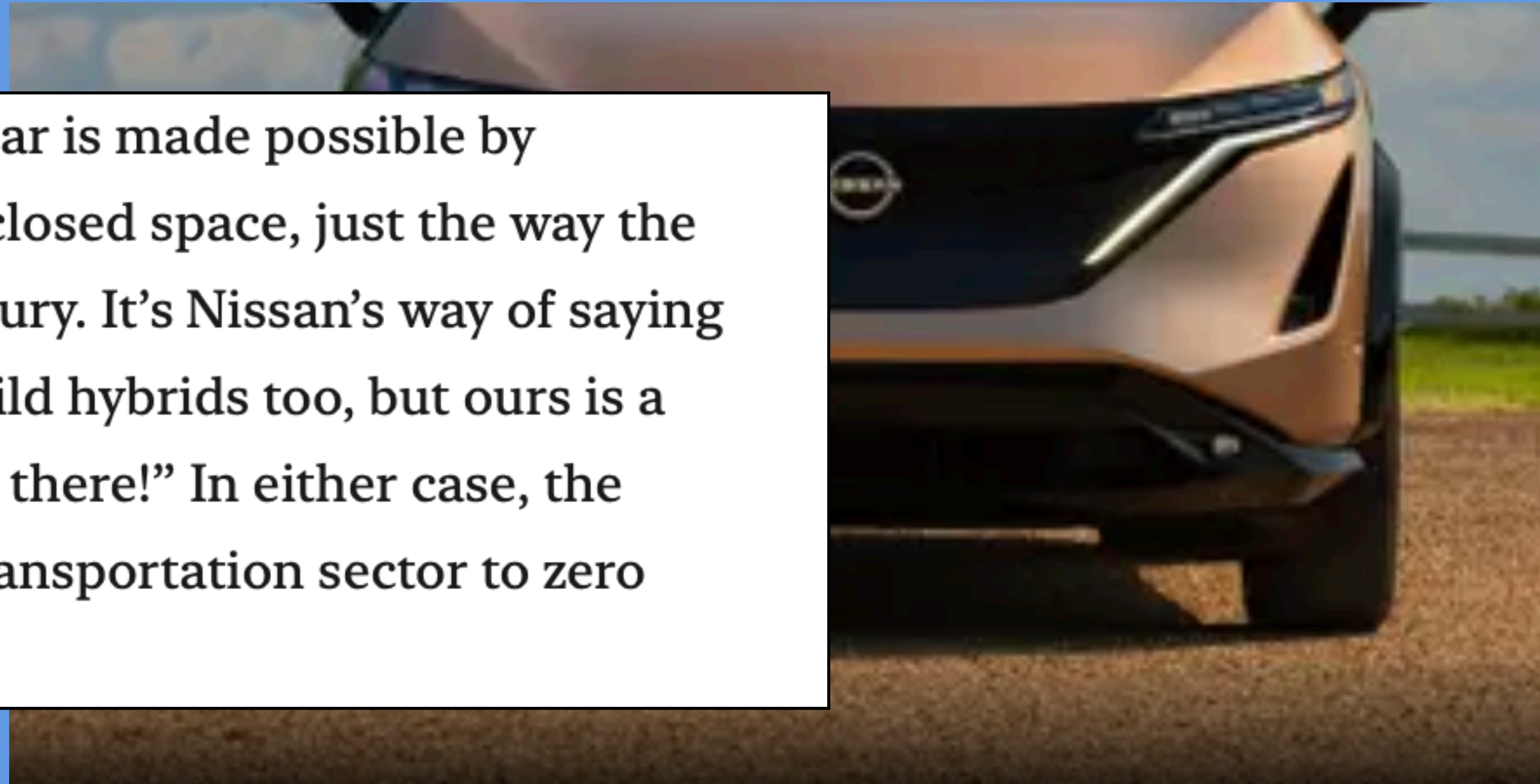
# Looking Into Electric Cars

Session 5: The Market Place

## Fake Electric Cars

Every mile you drive in an e-Power equipped car is made possible by exploding molecules of gasoline within an enclosed space, just the way the vast majority of cars have done for over a century. It's Nissan's way of saying to Toyota shoppers, "Nyah, nyah, nyah. We build hybrids too, but ours is a series hybrid and yours is a parallel hybrid. So there!" In either case, the technology is irrelevant to transitioning the transportation sector to zero emissions technology.

Electric Drive train is  
100% powered by  
gasoline. Does NOT  
plug in to charge.



Cars

**Nissan Tiptoes Into The Electric Car Future**

By [Steve Hanley](#)

# Looking Into Electric Cars

Session 5: The Market Place

Just for fun

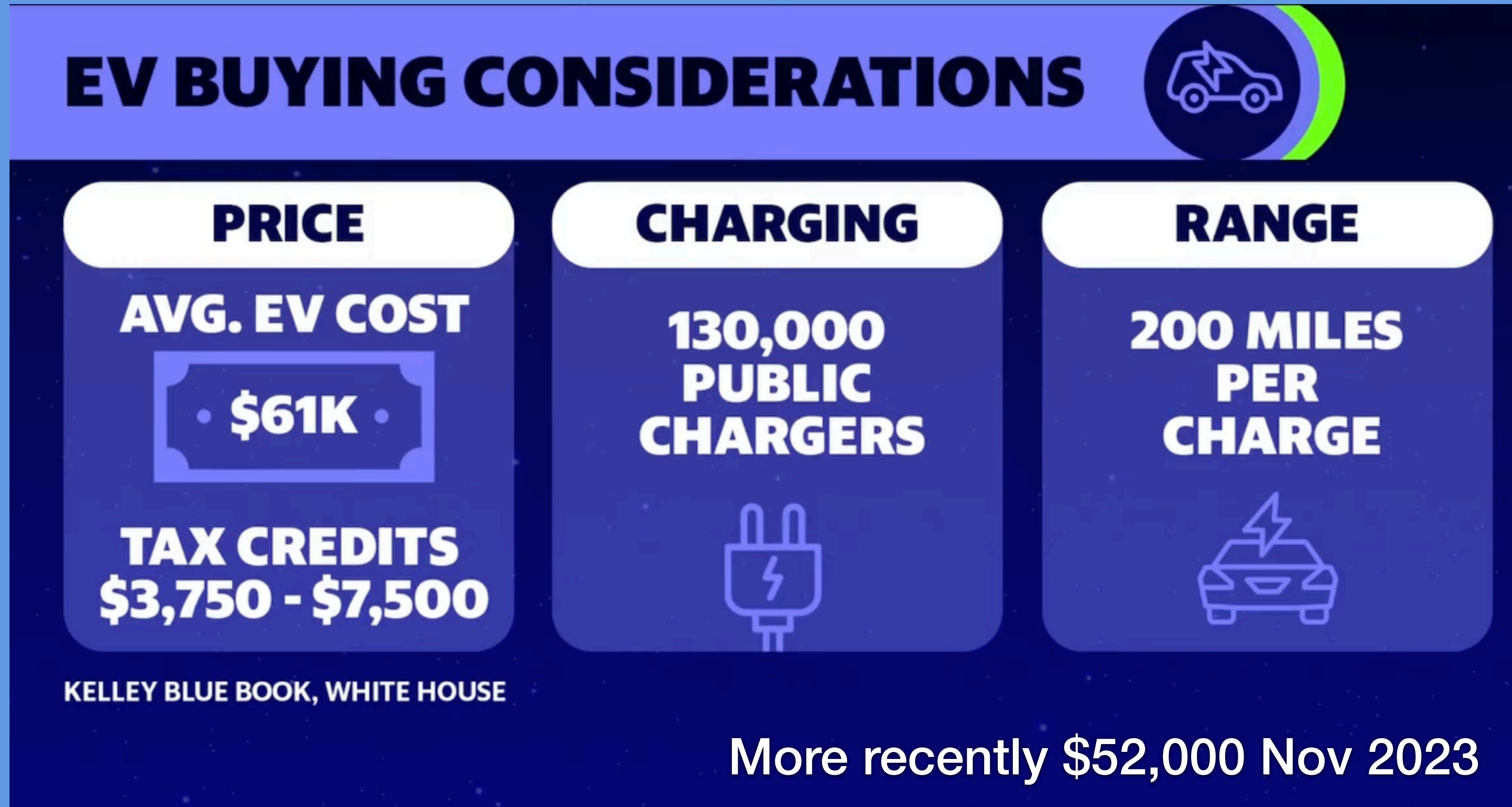


A real solar car - @ UI - used for research and competition.



# Looking Into Electric Cars

Session 5: The Market Place



\$61,000 !!! My average price for this list is \$39,400  
(\$36,150 w/ tax credit)

Reiterating - battery voltage more important than range.

# Looking Into Electric Cars

## Session 5: The Market Place

**The 10 Best-Selling EVs of 2023:**

Model	Total 2023 Sales
Tesla Model Y	394,497
Tesla Model 3	220,910
Chevrolet Bolt EV/EUV	62,045
Ford Mustang Mach-E	40,771
VW ID.4	37,789
Hyundai Ioniq 5	33,918
Rivian R1S	24,783
Ford F-150 Lightning	24,165
Tesla Model X	23,015
BMW i4	22,583

Kelly Blue book

2023 sales for EVs in the US. Tesla is the leader, sales of other models increasing.

# Looking Into Electric Cars

Session 5: The Market Place

## Things to look for

# Looking Into Electric Cars

## Session 5: The Market Place

I read a lot of Automotive Media.  
Unfortunately I read a lot of Auto motive media.  
So . . . . . I've learned that

### TOP 3 THINGS A NEW CAR NEEDS !!!!!

Zero to 60 MPH in 2.5 seconds  
It must have Apple CarPlay  
It must unlock by using your phone.

# Looking Into Electric Cars

## Session 5: The Market Place

I read a lot of Automotive Media.  
Unfortunately I read a lot of Auto motive media.  
So . . . . . I've learned that

**TOP 3 THINGS A NEW CAR NEEDS !!!!!**

Zero to 60 MPH in 2.5 seconds  
It must have Apple CarPlay  
It must unlock by using your phone.

**OR NOT !!**

# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV

Like the car you pick    Enjoying it is important.



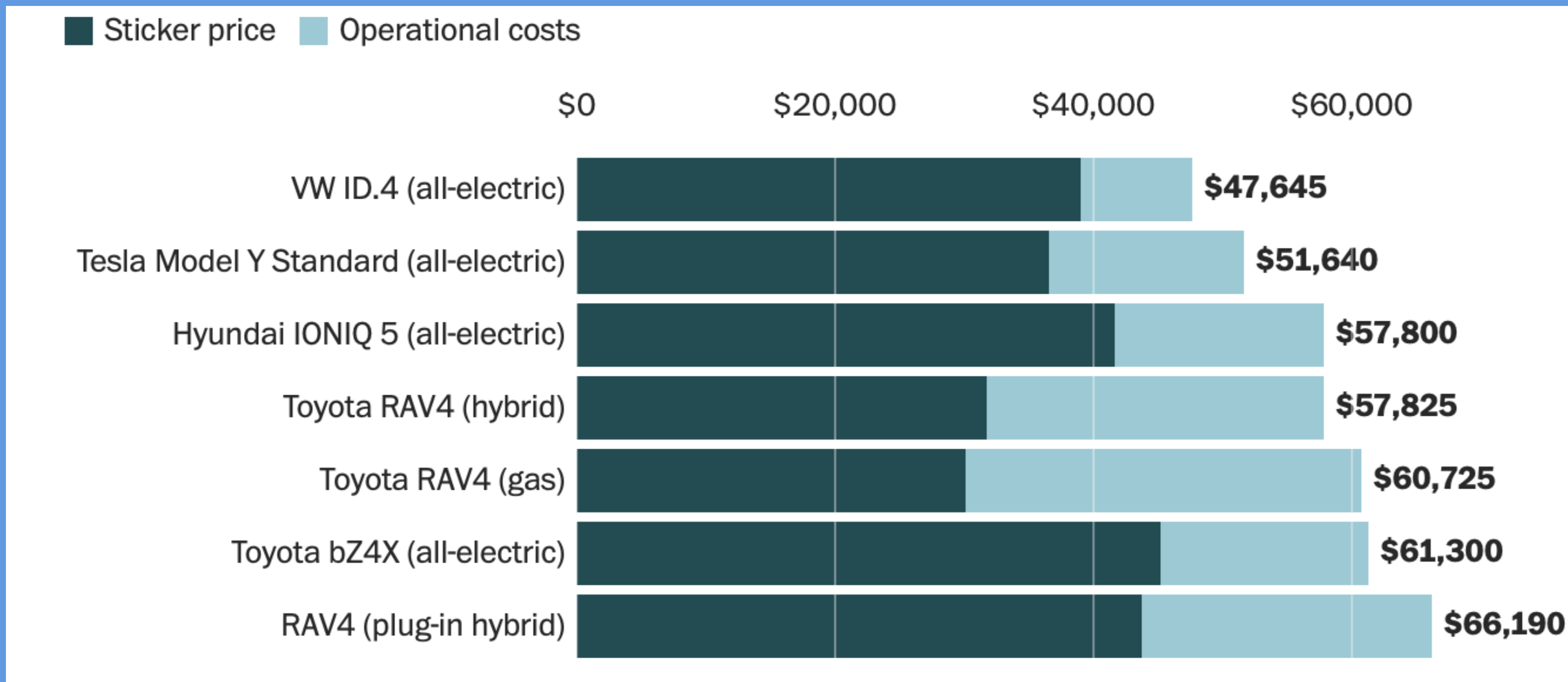
Porsche Taycan Sportbrake

# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV

TCO – (total cost of ownership) is what makes it affordable – Important for gas or electric - and I mentioned Inkjet vs Laser printers.



Note: on the gas RAV4 - cost of operations is about equal to the purchase price. Also the ID4 appears to not include incentive deductions.

# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV

For keeping YOU warm. Heat pump rather than resistance heating. The cost of heating by electrical resistance is FOUR times higher than a heat pump. (This works for your house also)



PS the first thing I turn on when I'm cold is the heated steering wheel  
Yes- I know it doesn't help the passengers. That's why heated seats are good.



# Looking Into Electric Cars

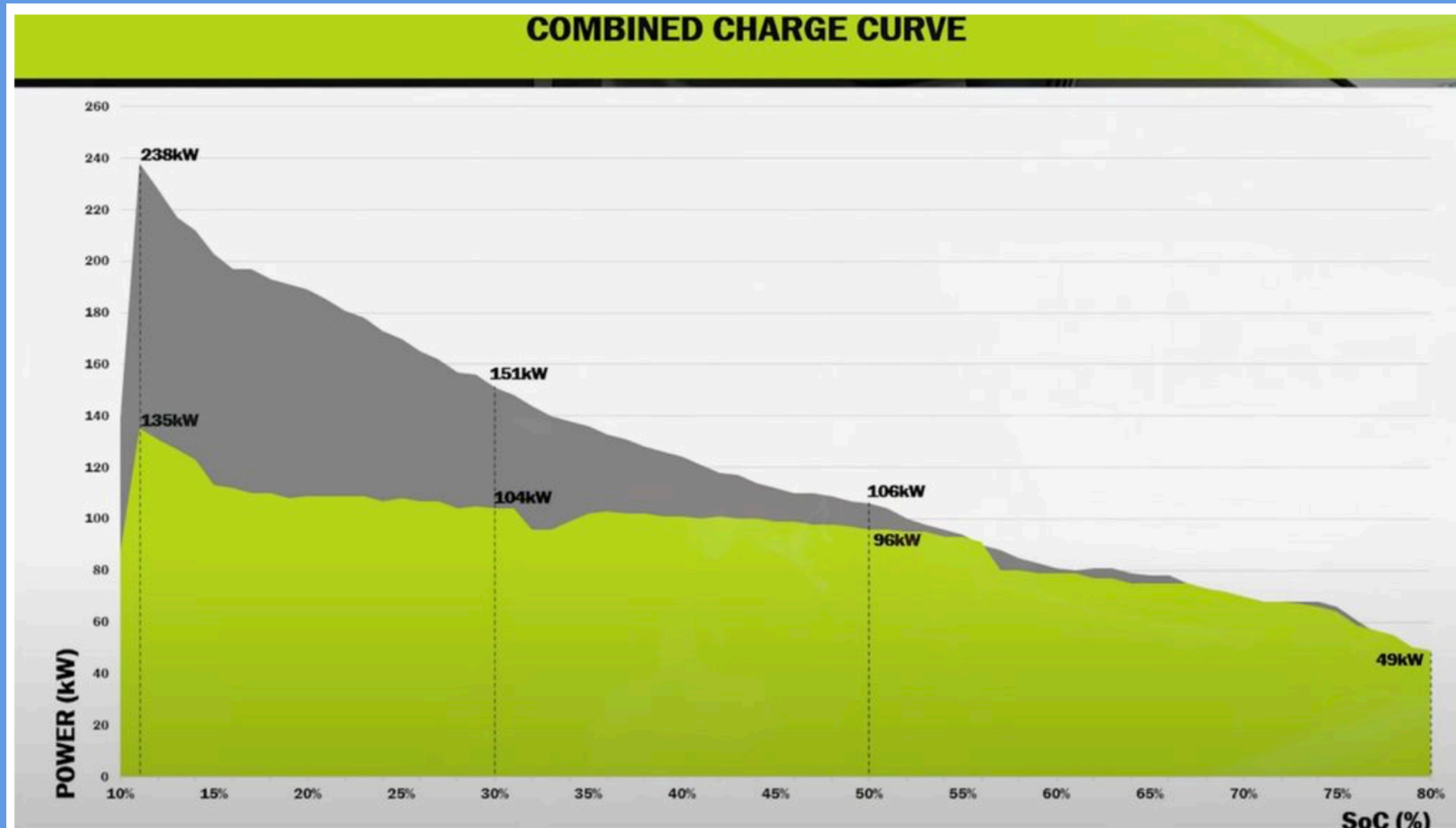
Session 5: The Market Place

Things to consider in buying an EV

## Heat Pump for the Battery

It is very important for improving charging times. It does this by keeping the battery from getting too hot or too cold. This also protects from damage by temperature.

Definitely worth while when traveling long distances in sub-zero weather.



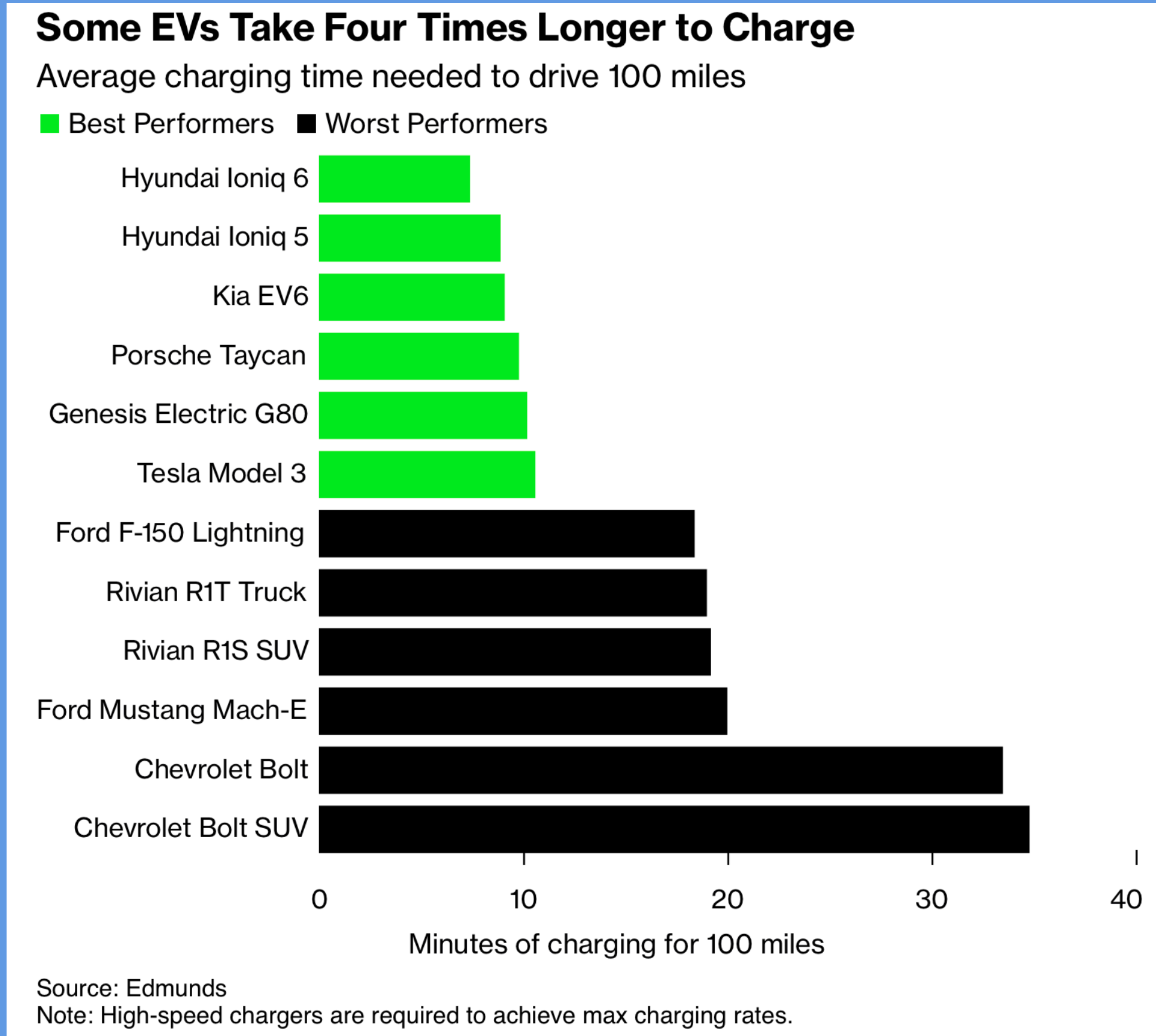
Charging curve with battery preconditioning (grey) vs. charging curve with cold battery (green)

# Looking Into Electric Cars

## Session 5: The Market Place

Things to consider in buying an EV

The more traveling you do  
The more you want 800v  
battery architecture



On the left - the cars in green are 800v  
batteries. The ones in black are not  
(probably 400v

The Chevy Bolt is a 2016 design when  
50kw charging speed was the fastest.

# Looking Into Electric Cars

## Session 5: The Market Place

If you're looking at 400V vs 800V [charging](#), the latter is the clear winner, since it essentially halves charging time.

There are other benefits, too: the higher voltage creates a lower current, which reduces heat - always a good thing when it comes to EV batteries, as battery cooling systems can suck up power. Lower current also means charging cables can be thinner and less cumbersome, and certain electrical components in the car can also be thinner and smaller, making the car more lightweight and efficient.

With 800V architecture = charging at higher speeds = less time charging

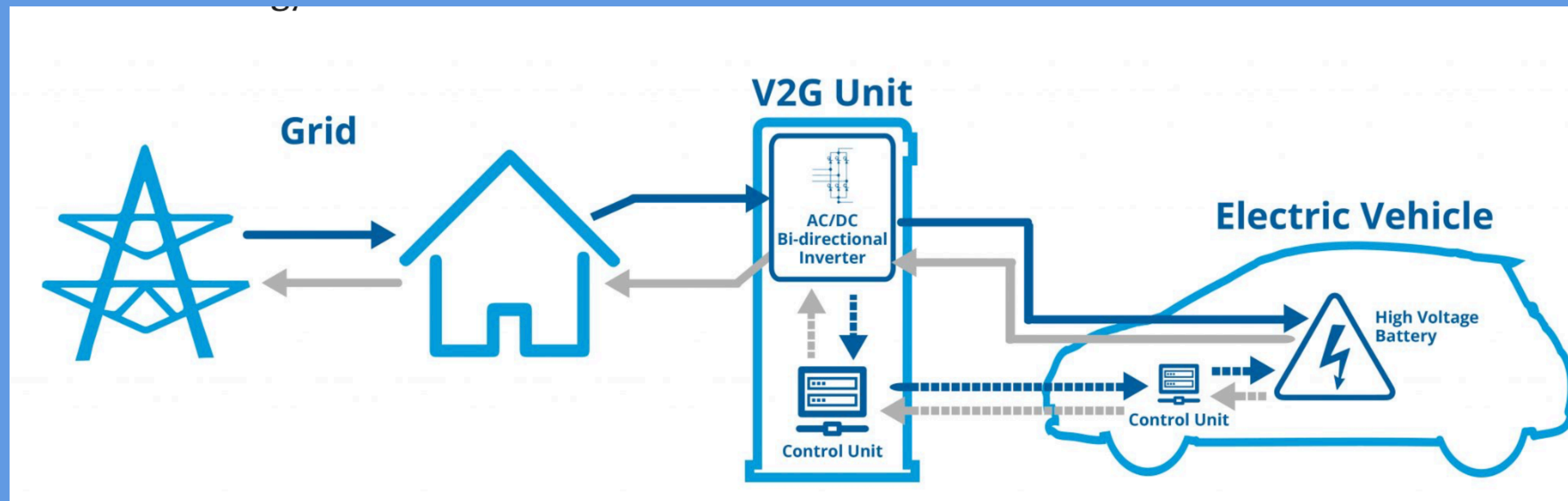
# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV

Not too much out there now, but V2X - various forms of bidirectional charging will be a big thing.

(California leads the country and California legislation will lead the way across the country).



# Looking Into Electric Cars

Session 5: The Market Place

## Things to consider in buying an EV



All EVs have regenerative braking - which puts the kinetic energy of the car back into the battery. One Pedal Driving allows the driver to come to a complete stop without using the brake pedal- if you don't like it now - you'll probably like it later.

# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV



Like gas cars some EVs have features and some don't. If you really want a rear window wiper - don't assume the vehicle being considered has it.

# Looking Into Electric Cars

Session 5: The Market Place

Things to consider in buying an EV



Not all high tech really cool things are good. The Tesla (left) electronic door handle can freeze shut. The VW (right) door handle is also electronic. The VW design is weatherproof. Touching the inside of the handle electronically unlatches door and if the door is iced shut, there is a good grip to pull it open.

# Looking Into Electric Cars

Session 5: The Market Place

## A list of cars



# Looking Into Electric Cars

## Session 5: The Market Place

I looked around and decided to only consider cars that are currently being delivered, reasonably priced, and hopefully qualify for incentives.

Exceptions with no Federal incentives :

I had this exception previously - incentives make for a less expensive car. Something you can decide for yourself.

Maybe I am shopping for a car. (Ask me I'll tell you why)

I picked ten cars to go over.

Chevy Bolt

Kona Electric SE

Volvo EX30

Hyundai Ioniq 6

Tesla Model 3 (Model Y)

VW ID.4

Ford Mustang Mach-E

Ford Lighting (Pick-up)

And two Plug-in hybrids

Ford Escape

Toyota Prius

And two noteworthy EVs without tax credit and KIA EV6



# Looking Into Electric Cars

## Session 5: The Market Place





**Attention:** Not every version of the models listed below will necessarily qualify. Please check with the dealer/seller to determine the eligibility of your specific vehicle.

Make	Model	Model Year	Vehicle Type	Credit Amount	MSRP Limit	Eligibility
------	-------	------------	--------------	---------------	------------	-------------

### Chevrolet

	<b>Bolt EUV</b>	2022–2023	EV	\$7,500	\$55,000	Check w/ dealer
	<b>Bolt EV</b>	2022–2023	EV	\$7,500	\$55,000	Check w/ dealer

### Rivian

	<b>R1S Dual Large</b>	2023–2024	EV	\$3,750	\$80,000	Check w/ dealer
	<b>R1S Quad Large</b>	2023–2024	EV	\$3,750	\$80,000	Check w/ dealer
	<b>R1T Dual Large</b>	2023–2024	EV	\$3,750	\$80,000	Check w/ dealer
	<b>R1T Dual Max</b>	2023–2024	EV	\$3,750	\$80,000	Check w/ dealer
	<b>R1T Quad Large</b>	2023–2024	EV	\$3,750	\$80,000	Check w/ dealer






**Attention:** Not every version of the models listed below will necessarily qualify. Please check with the dealer/seller to determine the eligibility of your specific vehicle.

Make	Model	Model Year	Vehicle Type	Credit Amount	MSRP Limit	Eligibility
------	-------	------------	--------------	---------------	------------	-------------

### Ford

	<b>F-150 Lightning (Extended Range Battery)</b>	2022–2024	EV	\$7,500	\$80,000	Check w/ dealer
	<b>F-150 Lightning (Standard Range Battery)</b>	2022–2024	EV	\$7,500	\$80,000	Check w/ dealer

### Tesla

	<b>Model 3 Performance</b>	2023–2024	EV	\$7,500	\$55,000	Check w/ dealer
	<b>Model X Long Range</b>	2023–2024	EV	\$7,500	\$80,000	Check w/ dealer
	<b>Model Y All-Wheel Drive</b>	2023–2024	EV	\$7,500	\$80,000	Check w/ dealer
	<b>Model Y Performance</b>	2023–2024	EV	\$7,500	\$80,000	Check w/ dealer
	<b>Model Y Rear-Wheel Drive</b>	2024	EV	\$7,500	\$80,000	Check w/ dealer

This list is quite short - a lot of Manufacturers have not submitted the paperwork yet. Also - its all about the batteries. Some models might be using up stock of no longer qualifying batteries - so VIN counts.

# Looking Into Electric Cars

Session 5: The Market Place

## Top Cars

**2023 World Car of the Year: Hyundai Ioniq 6**



Toyota Prius

- 2024 USNews & Motor trend

Some 2024 awards aren't out yet

# Looking Into Electric Cars

## Session 5: The Market Place

### **GM killed the Chevy Bolt — and the dream of a small, affordable EV**

The Chevy Bolt's demise underscores a trend toward larger, heavier, more expensive EVs. But the Bolt was always more practical than dramatic. And that's why it will be missed.

Dan Seifert • Apr 26, 2023 at 6:00 AM CDT



## Chevy Bolt

Almost all news stories left out the part about the Equinox



2024 Chevy Equinox EV Still On Track For Fall 2023 Launch

Oops make that mid ? 2024

# Looking Into Electric Cars

## Chevy Bolt

### Session 5: The Market Place

Chevrolet  
**Bolt EV 1LT**

**From Electric for All**



**With my Jan 8 corrections. MSRP \$26,500**  
**This price becomes \$18,950 fed credit**

#### EV DETAILS

Car Type	Electric Range	Total Range	
BEV	259 Miles	259 Miles	HOV

#### Basic Specs



Hatchback

**5**

Seats

**16.6-57**

cu. ft. Cargo Space

#### Fuel Type & Range



All-Electric

**259**

Electric Miles

**65**

Battery Size (kWh)

#### Acceleration



**6.5 seconds**

to 60 miles per hour

#### Safety



NHTSA Rating

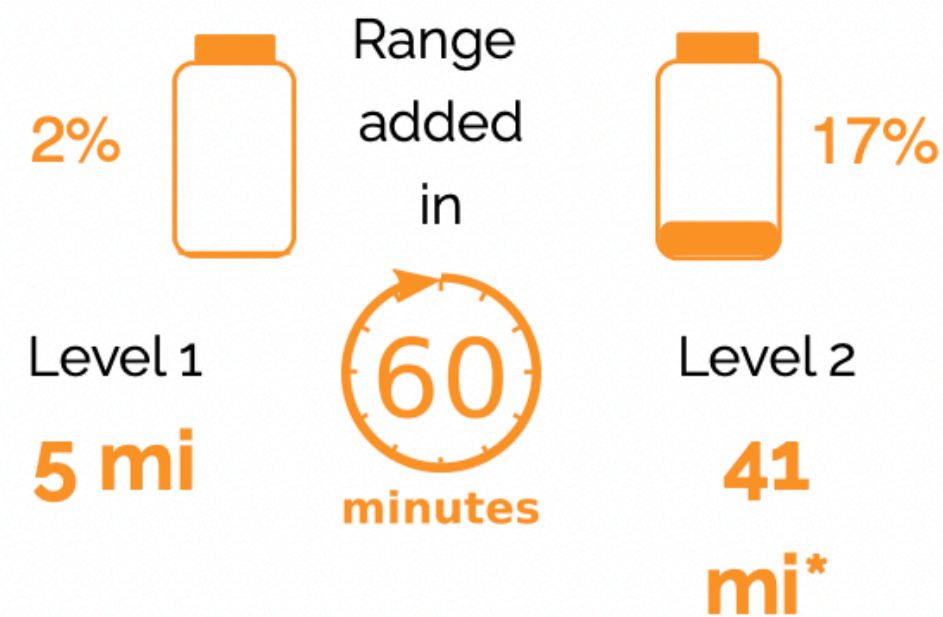
**N/A**

IIHS Top Safety Pick

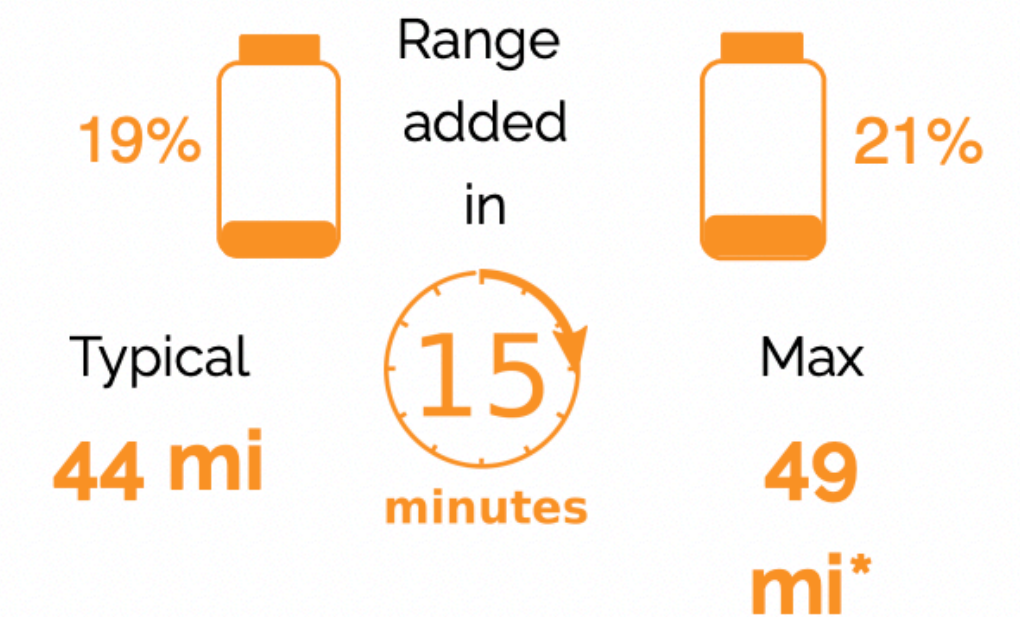
#### From Plugstar

#### Recharge Speed

##### Home and Away



##### At Fast Charge Stations



\* Estimates only. Max rate accepted by the vehicle shown. Your experience may vary.

# Looking Into Electric Cars

## Session 5: The Market Place

### Chevy Bolt

### Charger included

Chevrolet  
**Bolt EV 1LT**

**From Electric for All**



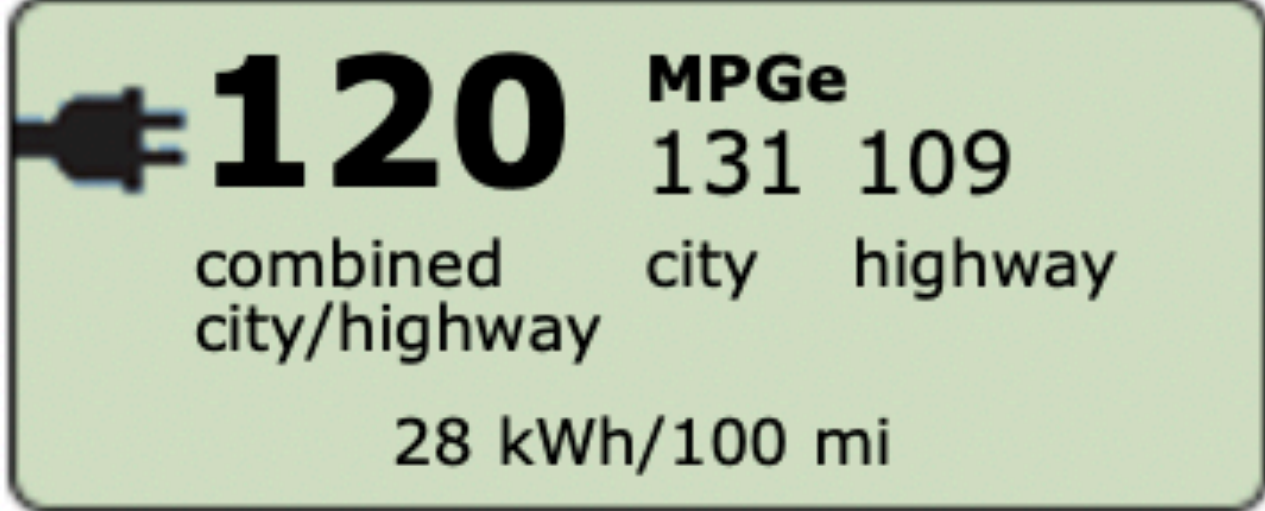
**With my Jan 8 corrections. MSRP \$26,500**  
**This price becomes \$18,950 fed credit**

#### EV DETAILS

Car Type	Electric Range	Total Range	
BEV	259 Miles	259 Miles	HOV

From EPA

#### Electricity



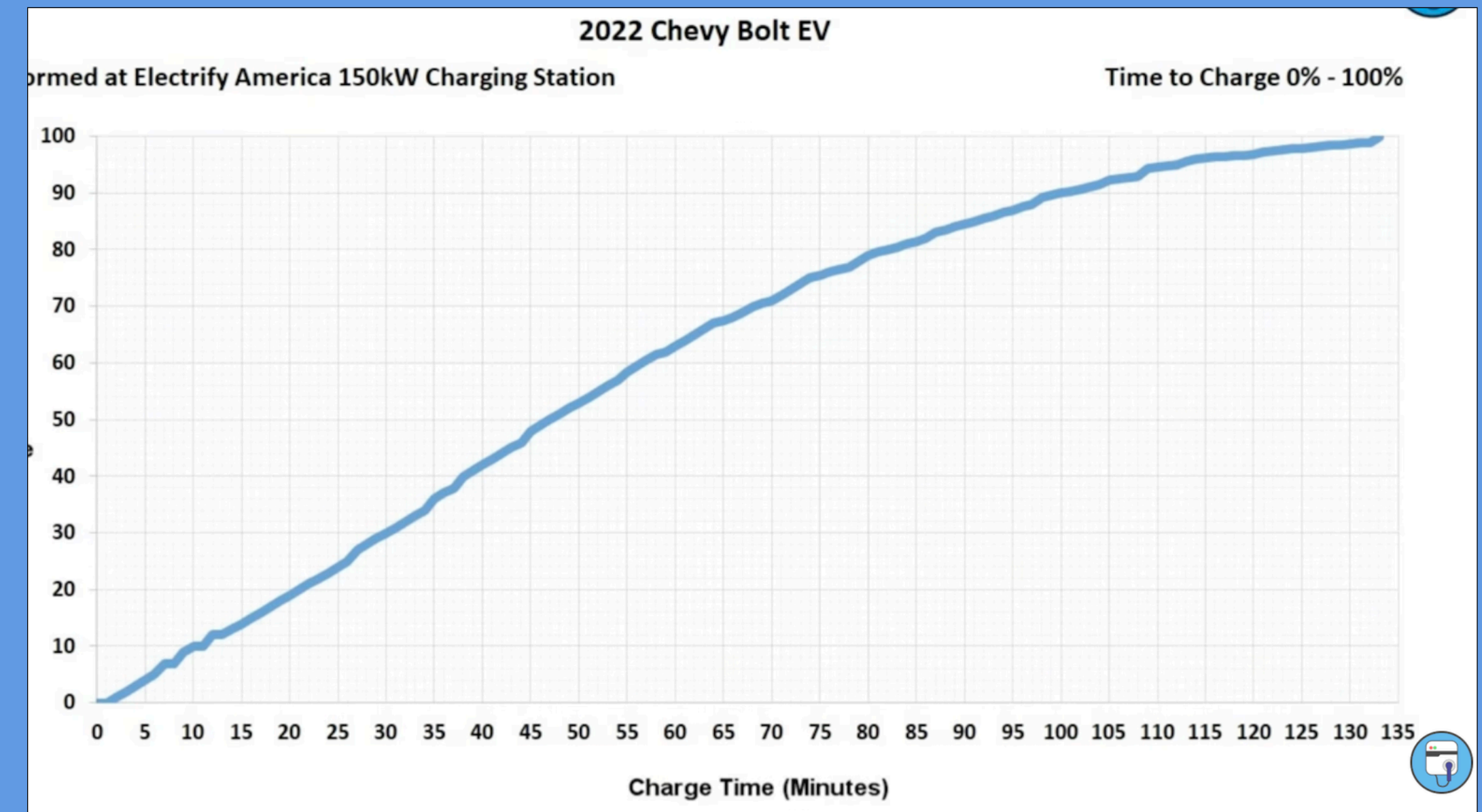
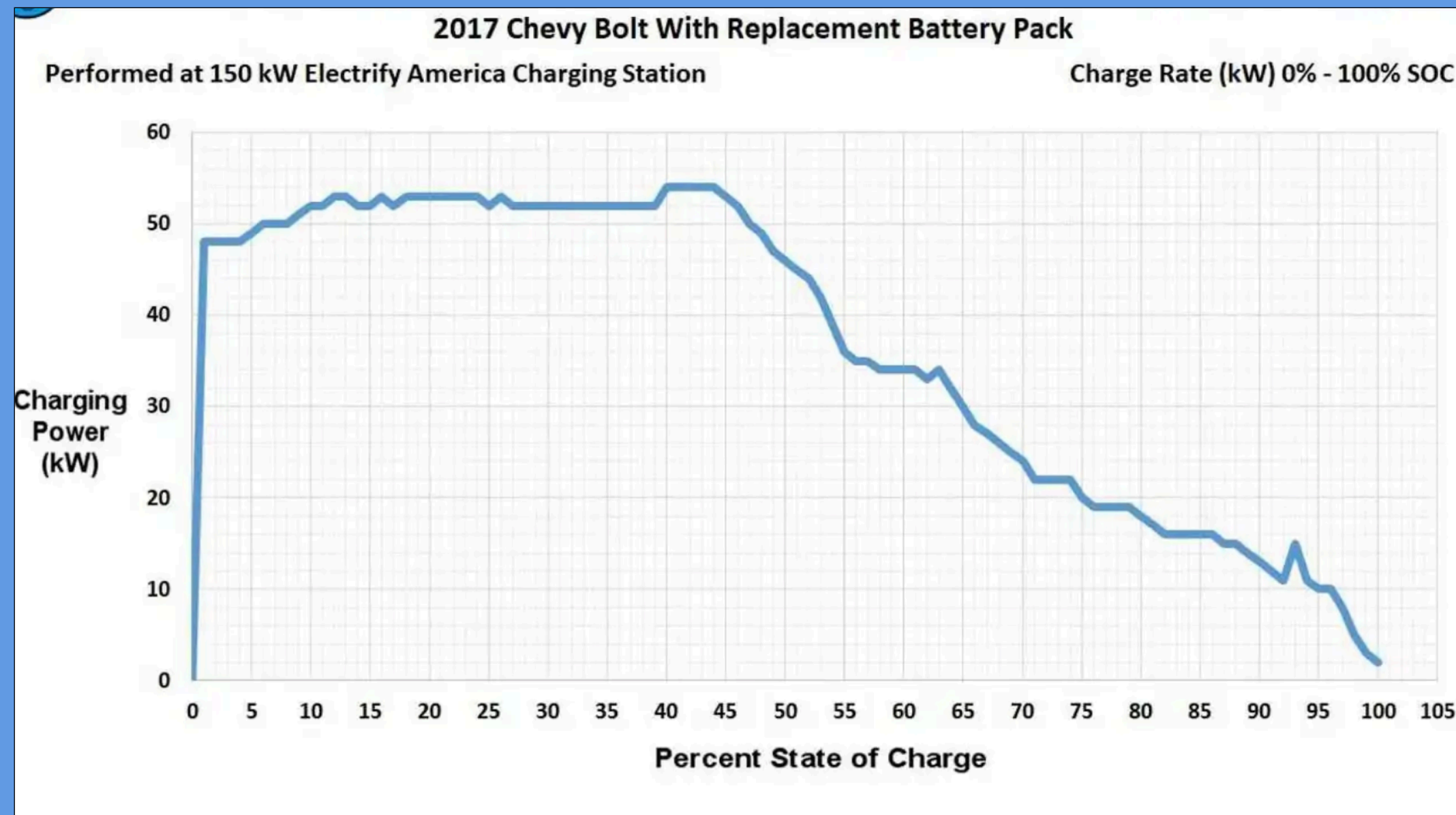
From EPA

Available through  
dealers



# Session 5 : What's available

# Chevy Bolt




## Notes for Bolt

DCFC rate peaks at 55 kw  
&  
Time to 80% = 80 minutes  
Time to 100% = 130 minutes

# Looking Into Electric Cars

## Session 5: The Market Place

Hyundai □  
**KONA Electric SE**



*SEATS: 5*

**PRICE ESTIMATE\***

**With my Jan10 corrections. MSRP. \$32,675**

**No Fed credit**

**EV DETAILS**

Car Type	Electric Range	Total Range
BEV	200 Miles	200 Miles

**120** **MPGe**  
 combined city highway  
 134 106  
 city highway  
 27 kWh/100 miles

Owner MPG Estimates are not yet available for this vehicle.  
[How can I share my MPG?](#)

Battery - 48 kWh  
 DCFC speed - 100 kw  
 L2 speed - 7.2 kw

Charger included 12amp 110v




# Looking Into Electric Cars

## Session 5: The Market Place

Volvo

**EX30 Core Single Motor**




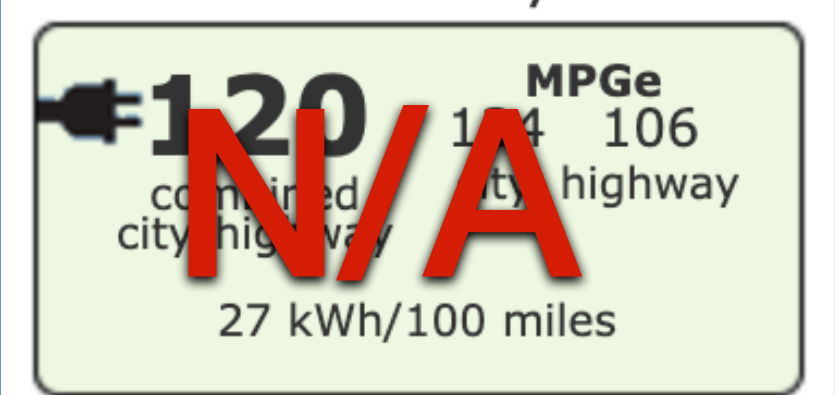
PRICE ESTIMATE\* SEATS: 5

**With my Jan10 corrections. MSRP. \$36,245**

**No Fed credit**

**EV DETAILS**

Car Type	Electric Range	Total Range
 BEV	275 Miles	275 Miles



Owner MPG Estimates are not yet available for this vehicle.  
[How can I share my MPG?](#)

Battery - 69 kWh  
 DCFC speed - 153 kw  
 L2 speed - 11 kw


Charger - no info

# Looking Into Electric Cars

## Session 5: The Market Place

Hyundai □

### IONIQ 6 SE Standard Range



PRICE ESTIMATE\* SEATS: 5

**With my Jan10 corrections. MSRP. \$38,615**


No Fed credit

#### EV DETAILS

Car Type	Electric Range	Total Range	
BEV	240 Miles	240 Miles	HOV

2024 Hyundai Ioniq 6 Standard Range RWD X

Electric Vehicle



Automatic (A1)  
MSRP: \$37,500

#### Electricity

**135** MPGe  
combined city highway  
city/highway

24 kWh/100 mi

Electricity 240 miles Total Range

**From EPA**

Battery - 53 kWh  
DCFC speed - 233 kw  
L2 speed - 11 kw

Charger - credit for home charger and installation.

V2L capable (not V2H or V2G)

# Looking Into Electric Cars

## Session 5: The Market Place

Tesla

**Model 3 RWD**

From Electric for All



SEATS: 5

**With my Jan11 corrections. MSRP. \$35,990**

Tesla prices seem to change almost daily.  
Tesla prices appear to include \$7,500 off  
with Taxcredit or discount if it doesn't  
qualify

### EV DETAILS

Car Type	Electric Range	Total Range	
BEV	272 Miles	272 Miles	HOV

My goal is to post the least expensive Tesla but pricing policy makes that difficult.

The model 3 does not qualify and has been discounted. Same for the Model 3 RWD.

True MSRP is not available.

Tesla

**Model Y RWD**

From Electric for All



**With my Jan11 corrections. MSRP. \$32,890**

Tesla prices seem to change almost daily.  
Tesla prices appear to include \$7,500 off  
with Taxcredit or discount if it doesn't  
qualify

### EV DETAILS


Car Type	Electric Range	Total Range	
BEV	260 Miles	260 Miles	HOV

# Looking Into Electric Cars

## Session 5: The Market Place

Tesla  
**Model 3 RWD**



**From Electric for All**




SEATS: 5


**With my Jan11 corrections. MSRP. \$35,990**  
Tesla prices seem to change almost daily.  
Tesla prices appear to include \$7,500 off  
with Tax credit or discount if it doesn't  
qualify

**EV DETAILS**

Car Type	Electric Range	Total Range	
 BEV	272 Miles	272 Miles	 HOV

2023 Tesla Model 3 RWD X


 Electric Vehicle




Automatic (A1)  
MSRP: \$40,240

[Possible Tax Break](#)

**Electricity**

 **132** MPGe  
138 126  
combined city highway  
25 kWh/100 mi

Electricity 

**From EPA** 272 miles  
Total Range


Battery - 60 kWh  
DCFC speed - 170 kw  
L2 speed - 11 kw

# Looking Into Electric Cars

## Session 5: The Market Place

Tesla **Model 3 RWD**

**From Electric for All**



SEATS: 5

**With my Jan11 corrections. MSRP. \$35,990**


Tesla prices seem to change almost daily.  
Tesla prices appear to include \$7,500 off  
with Tax credit or discount if it doesn't  
qualify

**EV DETAILS**

Car Type	Electric Range	Total Range	
BEV	272 Miles	272 Miles	HOV

2023 Tesla Model 3 RWD

Electric Vehicle




Automatic (A1)  
MSRP: \$40,240

**Possible Tax Break**

**Electricity**

<b>132</b> MPGe	138	126
combined city/highway	city	highway
25 kWh/100 mi		

Electricity 

**From EPA** 272 miles Total Range

Online ordering

Tesla Mobile Connector cord no longer included.

Available for \$250



# Looking Into Electric Cars

## Session 5: The Market Place

Volkswagen  
**ID.4 Standard**



**From Electric for All**



**With my Jan10 corrections. MSRP. \$38,995**

**This price becomes \$31,495 after fed credit**

### EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	209 Miles	209 Miles	 HOV

Volkswagen  
**ID.4 Pro**



**From Electric for All**



**With my Jan10 corrections. MSRP. \$43,995**

**This price becomes \$36,495 after fed credit**

### EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	275 Miles	275 Miles	 HOV

# Looking Into Electric Cars

VW ID.4

## Session 5: The Market Place

Volkswagen  
**ID.4 Standard**

**From Electric for All**



**With my Jan10 corrections. MSRP. \$38,995**

**This price becomes \$31,495 after fed credit**

### EV DETAILS

Car Type	Electric Range	Total Range	
BEV	209 Miles	209 Miles	

### Basic Specs



Crossover

**5**

Seats

**30.3-64.2**

cu. ft. Cargo Space

### Fuel Type & Range



All Electric

**260**

Electric Miles

**82**

Battery Size (kWh)

### Acceleration



**7.7 seconds**  
to 60 miles per hour

### Safety

**N/A**

NHTSA Rating

**N/A**

IIHS Top Safety Pick

### From Plugstar

### Recharge Speed

#### Home and Away



#### At Fast Charge Stations



\* Estimates only. Max rate accepted by the vehicle shown. Your experience may vary.

# Looking Into Electric Cars

VW ID.4

## Session 5: The Market Place



Volkswagen  
**ID.4 Standard** From Electric for All





**With my Jan10 corrections. MSRP. \$38,995**

**This price becomes \$31,495 after fed credit**

**EV DETAILS**

Car Type	Electric Range	Total Range	
 BEV	209 Miles	209 Miles	 HOV

 **99** **MPGe**  
 107 91  
 combined city hwy  
 city/hwy  
 34 kWh/100 mi

**Electricity** 

260 miles  
 Total Range From EPA

Charger no longer included.

Replaced by \$200 voucher towards a charger.



# Looking Into Electric Cars

VW ID.4

## Session 5: The Market Place

Volkswagen  
**ID.4 Standard**

**From Electric for All**



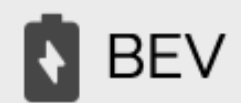
**With my Jan10 corrections. MSRP. \$38,995**

**This price becomes \$31,495 after fed credit**

### EV DETAILS

Car Type Electric Range

Total Range

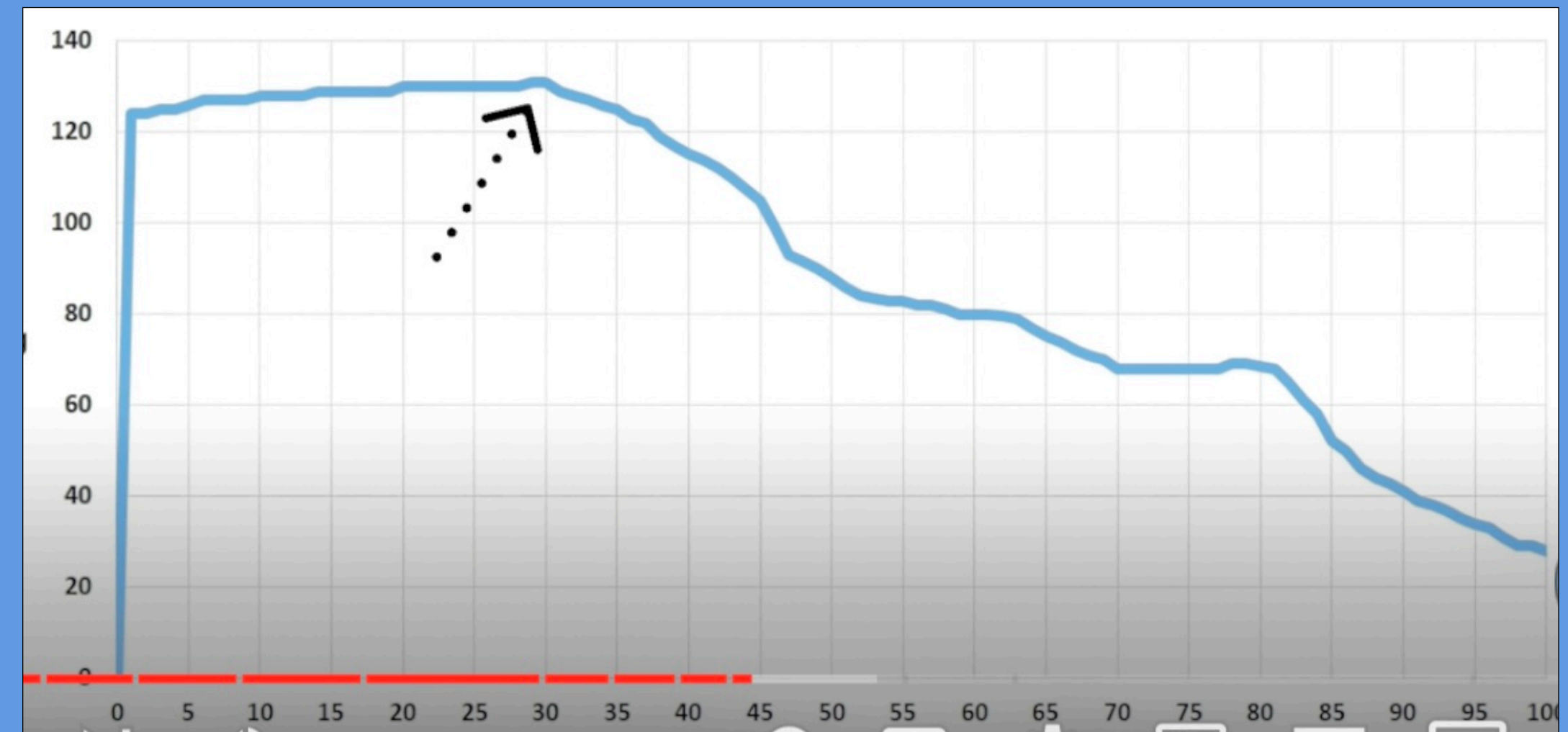
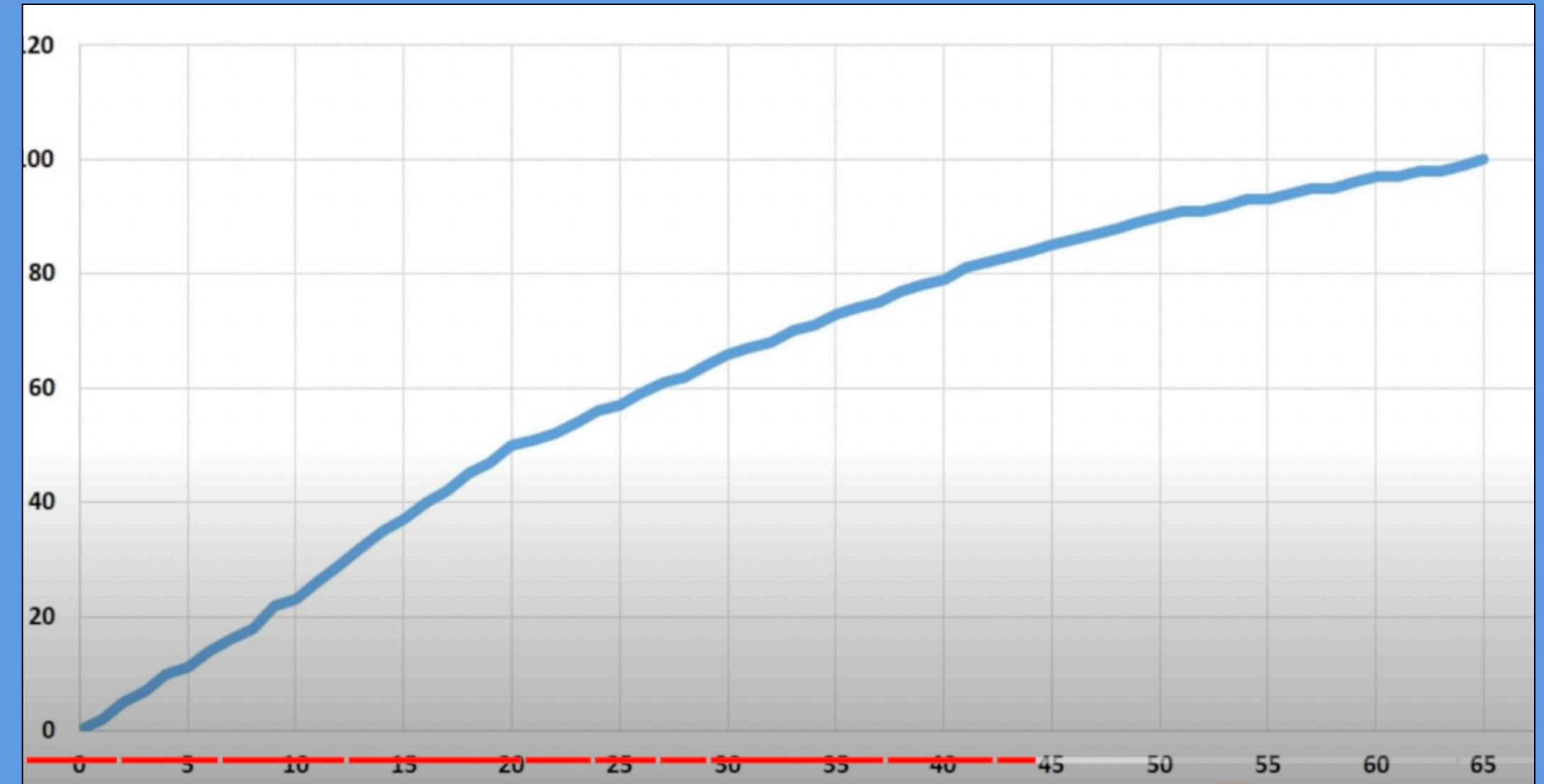


209 Miles

209 Miles



HOV




# Looking Into Electric Cars

## Session 5: The Market Place

Ford **Mustang Mach E Select**



**From Electric for All**




**With my Jan10 corrections. MSRP. \$42,995**  
**This price becomes \$35,495 after fed credit**


---

**EV DETAILS**

Car Type	Electric Range	Total Range	
 BEV	247 Miles	247 Miles	 HOV


2023 Ford Mustang Mach-E RWD


 Electric Vehicle



Automatic (A1)  
MSRP: \$42,995 - \$46,995  
[Possible Tax Break](#)

**Electricity**

 <b>103</b> MPGe	110	96
combined city/highway	city	highway
33 kWh/100 mi		


**Electricity** 

**From EPA** 247 miles Total Range

Battery - 70 kWh  
DCFC speed - 110 kw  
L2 speed - 11 kw

Charger

Charger included.  
Not included




Ford Mobile Power Cord

**\$500** [Details](#)

# Looking Into Electric Cars

## Session 5: The Market Place

Ford **From Electric for All**  
**F-150 Lightning Pro**



**With my Jan10 corrections. MSRP. \$49,995**

**This price becomes \$42,495 after fed credit**


---

**EV DETAILS**

Car Type	Electric Range	Total Range	
BEV	240 Miles	240 Miles	HOV

2023 Ford F-150 Lightning 4WD

Electric Vehicle



Automatic (A1)

**Possible Tax Break**

**Electricity**


**68** **MPGe**  
76 61  
combined city highway  
49 kWh/100 mi

**Electricity** 240 miles  
Total Range

**From EPA**

Battery - 98 kWh  
DCFC speed - 170 kw  
L2 speed - 19 kw

**Ford Mobile Power cord is not included**



**Ford Mobile Power Cord**

**\$500** [Details](#)

# Looking Into Electric Cars

## Session 5: The Market Place

## Ford Lightning



Ford **From Electric for All**  
**F-150 Lightning Pro**

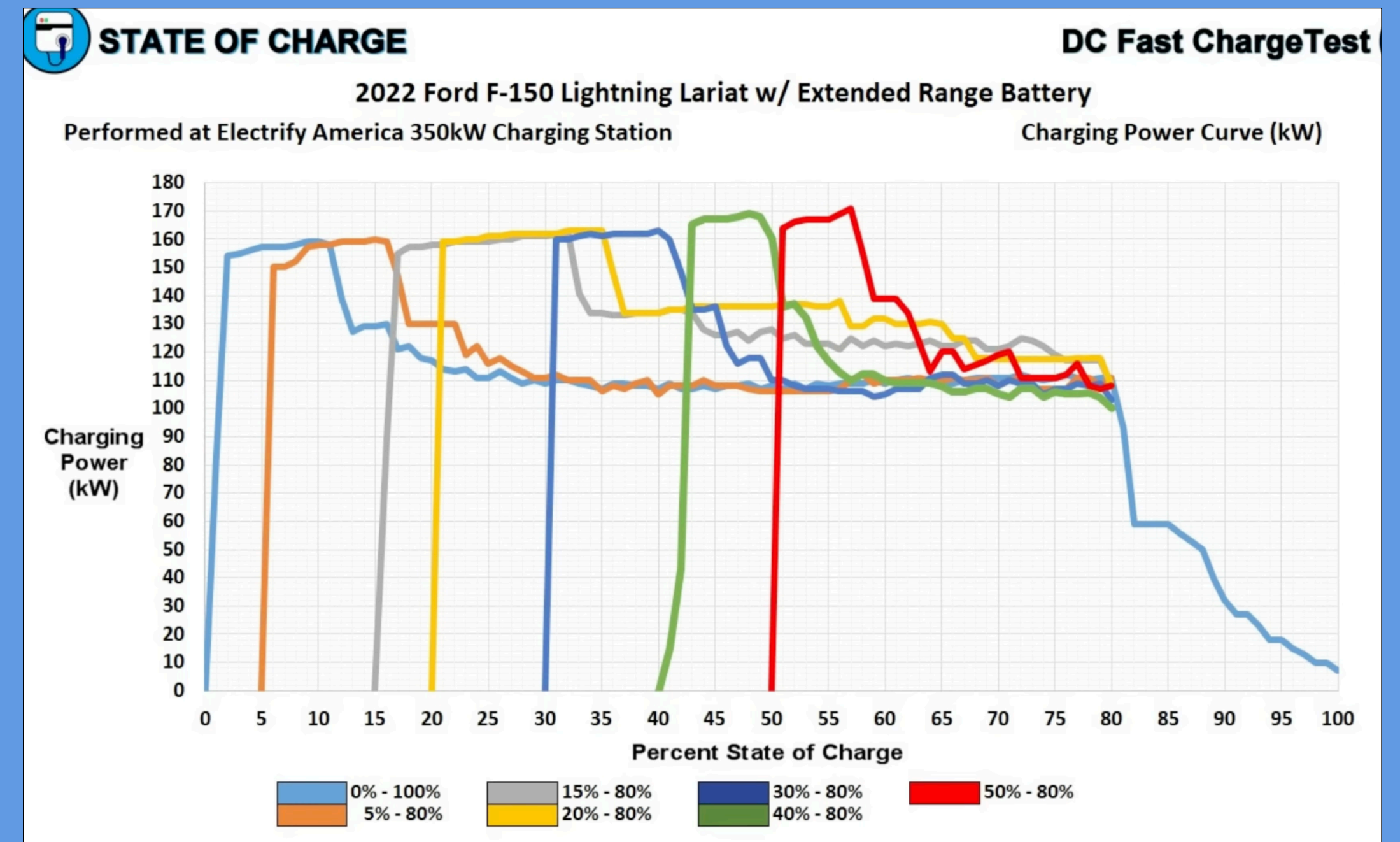


**With my Jan10 corrections. MSRP. \$49,995**

**This price becomes \$42,495 after fed credit**

### EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	240 Miles	240 Miles	 HOV



Amazing charge curves.

The difference is the battery management software. Instead of peaking at a fixed state of charge. The rate peaks at whatever percentage you start at.

# Looking Into Electric Cars

## Session 5: The Market Place

A fond goodbye to an EV  
leaving my list.

# Looking Into Electric Cars

# Top Cars

## Session 5: The Market Place

## Nissan Leaf

After Tesla - the Nissan Leaf with over 600,000 sold will forever be listed historically. A nice solid car.

But a car that has woefully outdated technical specifications. This will be its last year. made for the Leaf.

A \$28,000 Leaf is poor competition to the also departing \$20,000 Bolt. (After TC). Bolt also wins range. At \$36,000 the Leaf has better specs but then the Bolt is \$18,000 cheaper.

**Nissan LEAF S** From Electric for All

**Basic Specs**  
Hatchback  
5 Seats  
23.6-30 cu. ft. Cargo Space

**Fuel Type & Range**  
All-Electric  
149 Electric Miles  
40 Battery Size (kWh)

**Acceleration**  
8.7 seconds to 60 miles per hour

**Safety**  
NHTSA Rating N/A  
IIHS Top Safety Pick

**Recharge Speed**  
Home and Away: Level 1 (4 mi, 60 minutes), Level 2 (22 mi\*)  
At Fast Charge Stations: Typical (41 mi, 15 minutes), Max (41 mi\*)

**PRICE ESTIMATE\*** SEATS: 5  
**\$19,900** This price is reduced by federal \$7500 tax credit. You may not qualify for all of credit.  
\*After Incentives Applied

**EV DETAILS**  
Car Type: BEV | Electric Range: 149 Miles | Total Range: 149 Miles | HOV

With my Oct 21 corrections.  
MSRP: \$28040  
This price becomes \$16,540 after fed credit & Illinois rebate.

**MPGe**  
111 combined city/hwy  
123 city  
99 hwy  
30 kWh/100 mi

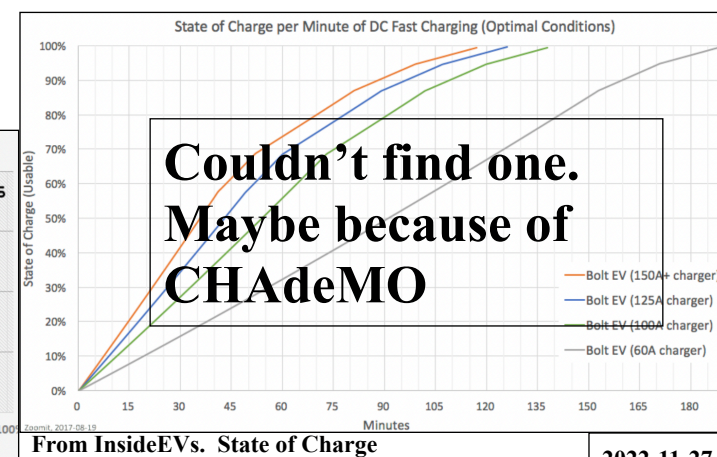
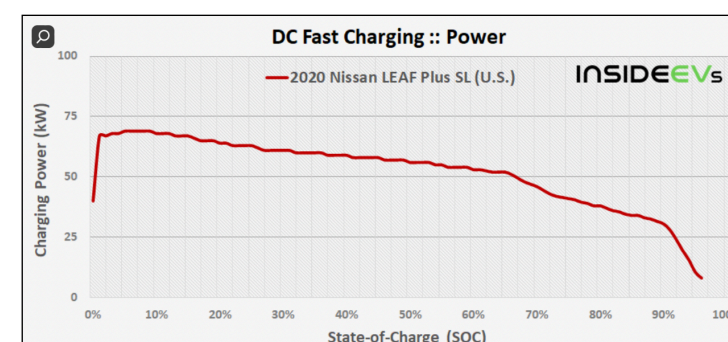
**Electricity**  
149 miles Total Range



Charger included. 110 only

Nissan Leaf is assembled in North America gets tax credit . . . but Nissan Ariya isn't, so no federal tax credit for Ariya.

Available through dealers



# Looking Into Electric Cars

## Session 5: The Market Place

Before mentioning the PHEV  
(Plugin Hybrid Electric Vehicles)

I want to reiterate that PHEV can be less expensive to drive off the dealers lot.

**BUT**

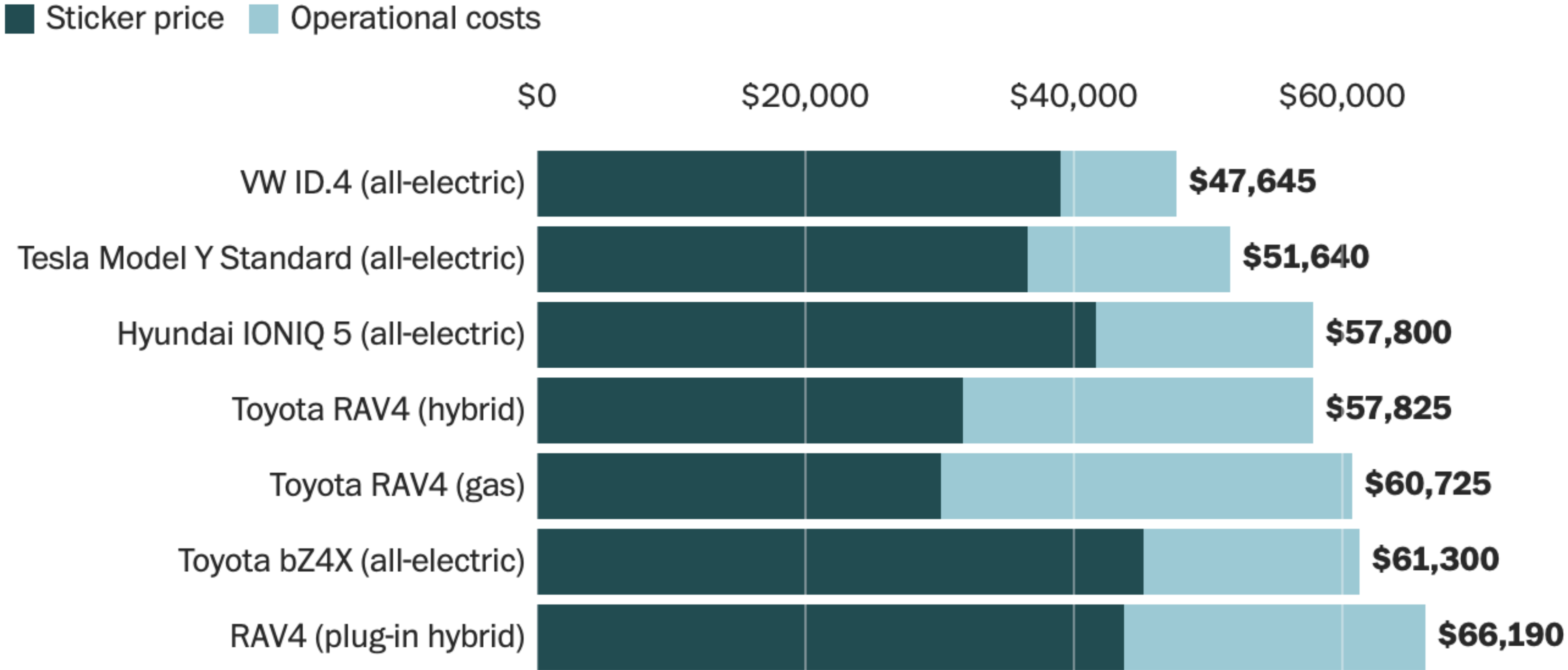
Over time the BEV ( Battery only Electric Vehicle ) will cost less over time. (And pollute less)

# Looking Into Electric Cars

## Session 5: The Market Place

### Total ownership costs of comparable SUVs or crossovers over 10 years

Includes purchase price after incentives, fuel and maintenance costs.



Based on latest EPA data for fuel prices and cost calculations assuming 15,000 annual miles (45% highway, 55% city driving)

Source: [EPA](#), [Energy Innovation](#)

MICHAEL J. COREN / THE WASHINGTON POST



# Looking Into Electric Cars

## Session 5: The Market Place

If you're generally driving less than about 200 miles a day and can access charging, switching to all-electric makes the most sense. You'll be able to top up your battery, saving money and emissions.

Plug-in hybrids will give you longer range without refueling, but are less efficient, since they carry around both an electric and gasoline drivetrain. "Where the plug-in hybrid fails is that you pay for two drivetrains. It's a suboptimal solution," says Tal, comparing the technology to a spork, neither a superior spoon nor fork. "If you don't need the [gasoline] engine, don't take the engine with you."


Washington Post

# Looking Into Electric Cars

## Session 5: The Market Place

### Ford Escape

Ford **From Electric for All**  
**Escape Plug-In Hybrid**



SEATS: 5


**With my Jan 8 corrections MSRP \$40,900**  
**This price becomes \$33,400 after fed credit**

**EV DETAILS**

Car Type	Electric Range	Total Range	
PHEV	37 Miles	520 Miles	HOV

**2023 Ford Escape FWD PHEV** X

Plug-in Hybrid Vehicle  
Gasoline-Electricity

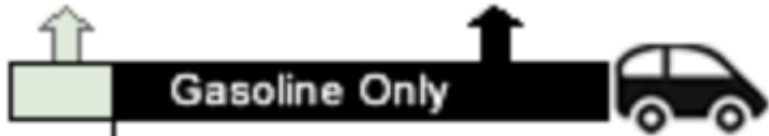


2.5 L, 4 cyl, Automatic (variable gear ratios)  
MSRP: \$40,500

Plug-in Hybrid Calculator

[Possible Tax Break](#)


Elec + Gas	Reg. Gas
<b>101</b> MPGe combined city/highway .0 gal/100mi of gas + 33 kWh/100mi	<b>40</b> MPG combined city/highway 2.5 gal/100mi



37 miles Elec + Gas  
520 miles Total Range ⓘ  
All Elec: 0-37 mi

**From EPA**

110v Connector cord included.



Ford Mobile Power Cord

\$500 [Details](#)

Online ordering is not available. Contact dealer.

37 miles driving with battery only is fairly good. I would not recommend any PHEV that gets less.

Tax credit is small - based on battery size.


# Looking Into Electric Cars

## Session 5: The Market Place

## Toyota Prius

Toyota **Prius Prime SE**

**From Electric for All**



PRICE ESTIMATE\* SEATS: 5

**With my Jan 8 corrections MSRP \$32,975**


**No info on when available.**

**EV DETAILS**

Car Type	Electric Range	Total Range	
PHEV	44 Miles	640 Miles	HOV

2024 Toyota Prius Prime SE

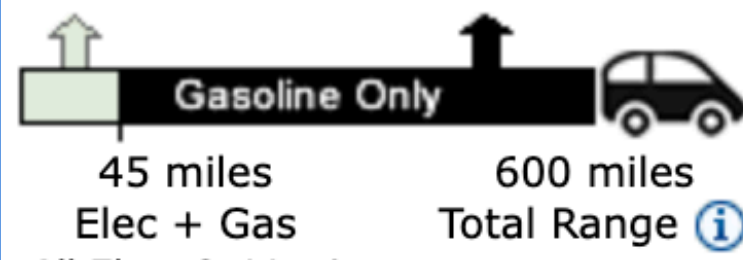
Plug-in Hybrid Vehicle  
Gasoline-Electricity



2.0 L, 4 cyl, Automatic (variable gear ratios)

Plug-in Hybrid Calculator

Elec + Gas	Reg. Gas
<b>127 MPGe</b> combined city/highway .0 gal/100mi of gas + 26 kWh/100mi	<b>52 MPG</b> combined city/highway 1.9 gal/100mi



45 miles Gasoline Only  
45 miles Elec + Gas  
600 miles Total Range

All Elec: 0-44 mi

From EPA

at dealerships in May.

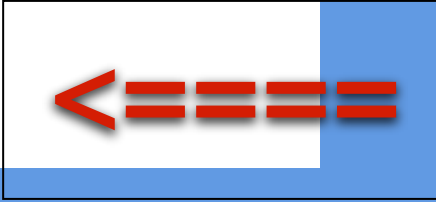
JD Power

Connector cord included.



Toyota Prius Prime  
OEM Cable  
Assembly / Part...

\$668.81 ~~\$845~~



# Looking Into Electric Cars

Session 5: The Market Place

Two vehicles worth mentioning

Both battery only

Both with 800v batteries


# Looking Into Electric Cars

## Session 5: The Market Place

## Hyundai Ioniq 5

Hyundai  
**IONIQ 5 SE Standard Range**

**From Electric for All**




PRICE ESTIMATE\* SEATS: 5

**With my Feb 10 corrections MSRP \$41,600**  
This price becomes \$41,800 no fed credit

**EV DETAILS**

Car Type	Electric Range	Total Range	 HOV
 BEV	220 Miles	220 Miles	

**114** MPGe  
combined city hwy  
city/hwy  
30 kWh/100 mi

**Electricity** 

303 miles  
Total Range

**From EPA**

Available through  
dealers.

Connector cord  
included.  
100v 12 amp




# Car and Driver EV of the year 2022

# Looking Into Electric Cars

## Session 5: The Market Place

## Hyundai Ioniq 5

Kia **From Electric for All**  
**EV6 Wind RWD**




**PRICE ESTIMATE\*** *SEATS: 5*


**With my Apr 27 corrections MSRP \$48,950**

**This price becomes \$48,950 no fed credit**

**EV DETAILS**

Car Type	Electric Range	Total Range	 HOV
BEV	232 Miles	232 Miles	

**114** **MPGe**  
combined city hwy  
city/hwy  
30 kWh/100 mi

**Electricity** 

303 miles  
Total Range

**From EPA**

Connector cord  
not included.

Available through  
dealers.

# Motorweek EV of the year 2023

# Looking Into Electric Cars

## Session 5: The Market Place

Building a USA factory will be necessary to qualify for the Federal tax credit.

Car makers starting the process of a US Factory

Audi

Canoo

KiaEV

Polestar south Carolina 2024

Vinfast

Ford and Chevy- multiple factory projects.

Honda batteries in Ohio

VW batteries in canada

Siemens EVSE

ABB EVSE

Tritium EVSE

(I'm positive I missed some)

# Looking Into Electric Cars

Session 5: The Market Place

## Fisker PEAR

Conventional thinking ends here.  
Affordable, agile and styled for all-electric city living.



## More \$30,000 EVs on the way !! ? ?

Things look a lot better with Fisker and Chevy. Both are a foot or two longer than the bolt. Equinox is expected in fall of 2023 for about \$30,000 and a 300 mile range. Fisker Pear also targets \$30,000 and 300 mile range. (Actual appearance of the pear is still a secret) Pear will possibly in 2024. Equinox reservations not open yet.



# Looking Into Electric Cars

# a used car thing

Session 5: The Market Place

**Plug In America** Used EV Tax Credit

Vehicle Requirements	Income Caps	Credit Amount
<ul style="list-style-type: none"><li>● Vehicle must be <b>at least 2 years old</b></li><li>● <b>Under \$25,000</b></li><li>● Sold by a dealer</li><li>● <b>No additional sourcing requirements</b> (eg. critical minerals, battery components, final assembly)</li></ul>	<p>Eligible consumers must fall at or below the income caps:</p> <ul style="list-style-type: none"><li>● <b>\$150,000</b> for joint return or surviving spouse</li><li>● <b>\$112,500</b> for head of household</li><li>● <b>\$75,000</b> for others</li></ul>	<p><b>\$4,000</b> or <b>30%</b> of the price of the vehicle (whichever is less)</p>

[www.pluginamerica.org](http://www.pluginamerica.org)

# Looking Into Electric Cars

# a used car thing

Session 5: The Market Place

**Plug In America** Used EV Tax Credit


Vehicle Requirements	Income Caps	Credit Amount
<ul style="list-style-type: none"><li>• Vehicle must be <b>at least 2 years</b></li><li>• <b>Under \$25,000</b></li><li>• Sold in the U.S.</li><li>• <b>No additional sourcing requirements</b> (eg. critical minerals, battery components, final assembly)</li></ul>	<p>Eligible consumers must fall at or below the income caps:</p> <ul style="list-style-type: none"><li>• <b>\$150,000</b> for joint return or surviving spouse</li><li>• <b>\$112,500</b> for head of household</li><li>• <b>\$75,000</b> for others</li></ul>	<p><b>\$4,000</b> or 10% of the price of the vehicle (whichever is less)</p>

www.pluginamerica.org

# Looking Into Electric Cars

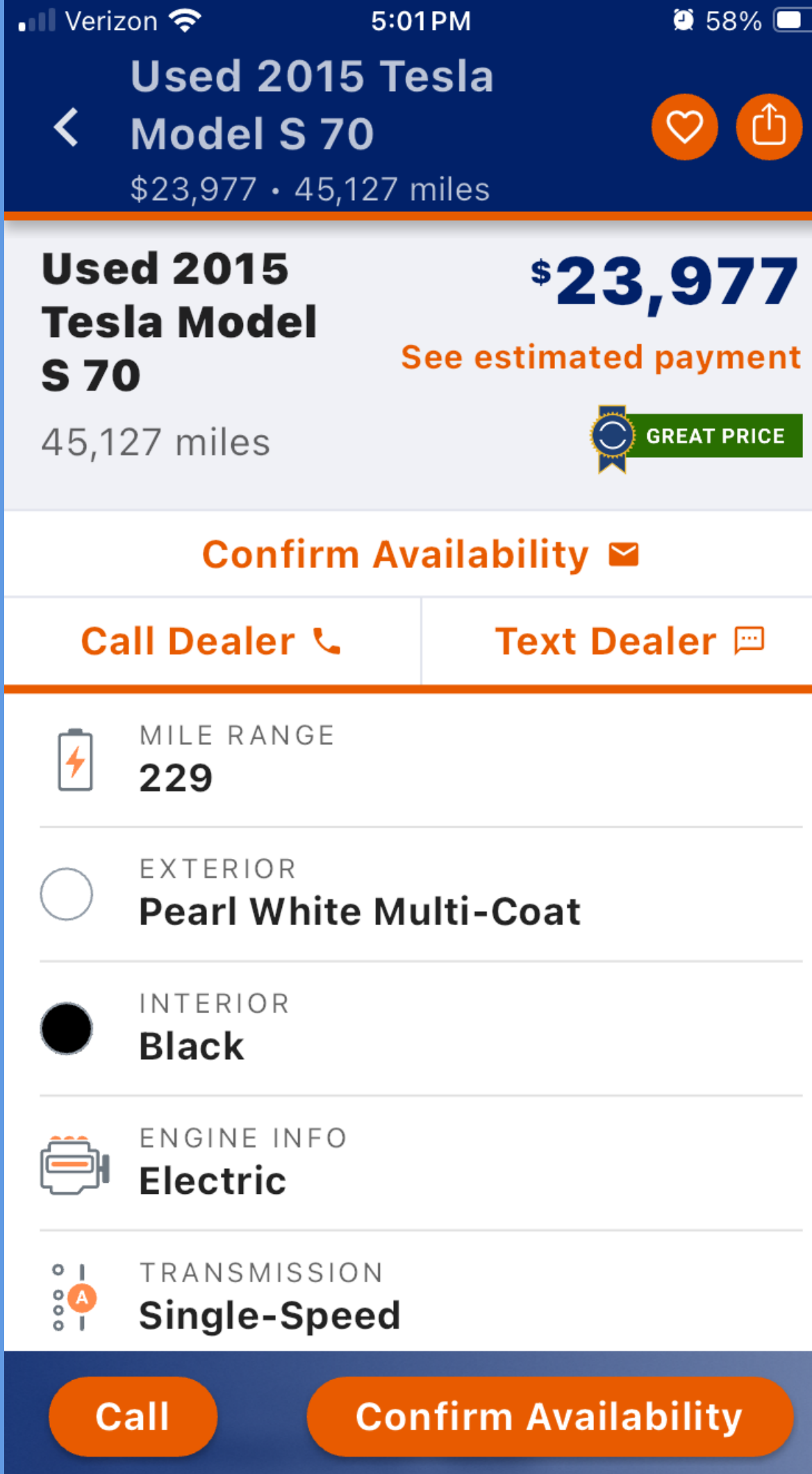
## Session 5: The Market Place

# a used car thing



**Used 2015 Tesla Model S 70**  
45,127 miles  
**\$23,977**  
GREAT PRICE  
See estimated payment  
Idrive1 Motorcars  
Carrollton, TX

www.iDrive1.net (214) 650-5744



Verizon 5:01PM 58%

Used 2015 Tesla Model S 70  
\$23,977 · 45,127 miles

**Used 2015 Tesla Model S 70**  
45,127 miles  
**\$23,977**  
See estimated payment  
GREAT PRICE

Confirm Availability

Call Dealer Text Dealer

MILE RANGE  
229

EXTERIOR  
Pearl White Multi-Coat

INTERIOR  
Black


ENGINE INFO  
Electric

TRANSMISSION  
Single-Speed


Call Confirm Availability

# Looking Into Electric Cars

## Session 5: The Market Place





**Used 2021 Ford Mustang Mach-E ...**  
40,098 miles  
**\$23,962**  
**See estimated payment**


Heller Ford Sales Inc  
El Paso, ... (59.9 ... 



# a used car thing


Verizon 4:54 PM 60%


Used 2021 Ford Mustang Mach-E ...    
\$23,962 · 40,098 miles


**Used 2021 Ford Mustang Mach-E Select** **\$23,962**  
*See estimated payment*  
40,098 miles


**Confirm Availability** 


**Call Dealer**  **Text Dealer** 

 MILE RANGE  
**230**

 EXTERIOR  
**Iconic Silver Metallic**

 INTERIOR  
**Black Onyx**

 ENGINE INFO  
**Electric**

 TRANSMISSION  
**Single-Speed**

**Call** **Confirm Availability**

# Looking Into Electric Cars

## Session 5: The Market Place

# a used car thing



Sponsored

### Used 2020 Chevrolet Bolt LT

13,830 miles

# \$16,995

 GOOD PRICE

[See estimated payment](#)


Shields Auto Center  
Rantoul... (13.9 ... 

Verizon 4:51 PM 63%

### Used 2020 Chevrolet Bolt LT

\$16,995 · 13,830 miles


**Used 2020 Chevrolet Bolt LT** **\$16,995**  
[See estimated payment](#)


13,830 miles  GOOD PRICE


[Confirm Availability](#)

[Call Dealer](#) [Text Dealer](#)

Advertisement

 MILE RANGE  
**259**

 EXTERIOR  
**Oasis Blue**

 INTERIOR  
**Dark Galvanized /Sky Cool Gray**

[Call](#) [Confirm Availability](#)

# Looking Into Electric Cars

## Session 5: The Market Place

**Used 2020 Nissan Leaf SV w/ SV ...**  
10,284 miles  
**\$16,990**  
**See estimated payment**

Ridings GM Chrysler ...  
Montice... (18.6 ...

# a used car thing

Verizon 4:58 PM 60%

Used 2020 Nissan Leaf SV w/ SV ...  
\$16,990 • 10,284 miles

**Used 2020 Nissan Leaf SV w/ SV** **\$16,990**  
10,284 miles **See estimated payment**

**Confirm Availability**

**Call Dealer** **Text Dealer**

**SHOP NISSAN@HOME**  
Advertisement

**MILE RANGE**  
**149**

**EXTERIOR**  
**Pearl White Tricoat**

**INTERIOR**  
**Black**


**ENGINE INFO**  
**Electric**

**Call** **Confirm Availability**

# Looking Into Electric Cars

Session 5: The Market Place

# a used car thing



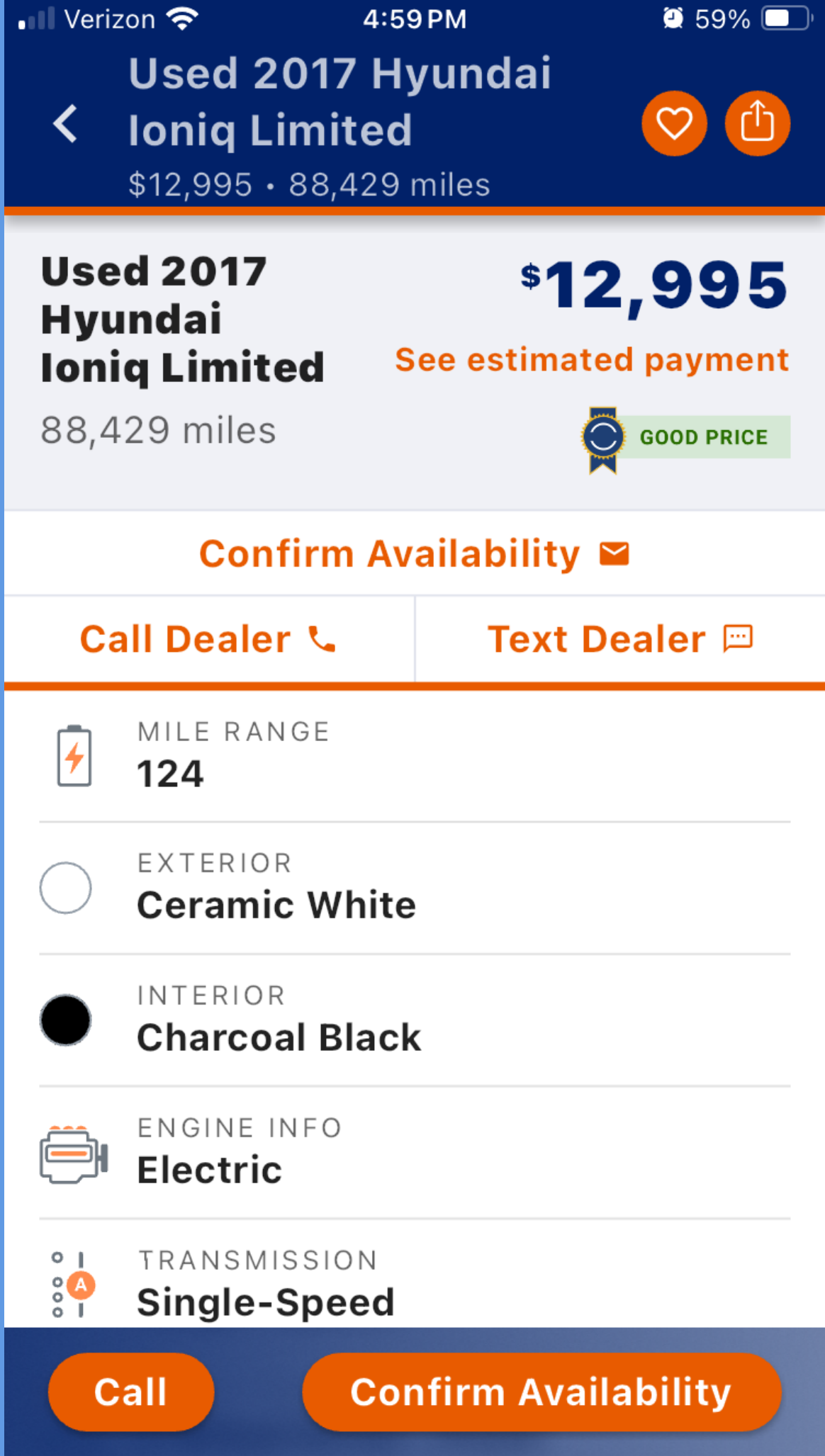
**Used 2017 Hyundai Ioniq Limited**  
88,429 miles

**\$12,995**

**GOOD PRICE**

**See estimated payment**

Leman's Chevy City  
Bloomin... (45.3 ...)



Used 2017 Hyundai Ioniq Limited  
\$12,995 · 88,429 miles

**Used 2017 Hyundai Ioniq Limited** **\$12,995**  
See estimated payment  
88,429 miles **GOOD PRICE**

**Confirm Availability**

**Call Dealer** **Text Dealer**

**MILE RANGE**  
124

**EXTERIOR**  
Ceramic White

**INTERIOR**  
Charcoal Black

**ENGINE INFO**  
Electric

**TRANSMISSION**  
Single-Speed


**Call** **Confirm Availability**

Only gets \$3898 tax credit = 30% of price.


# Looking Into Electric Cars

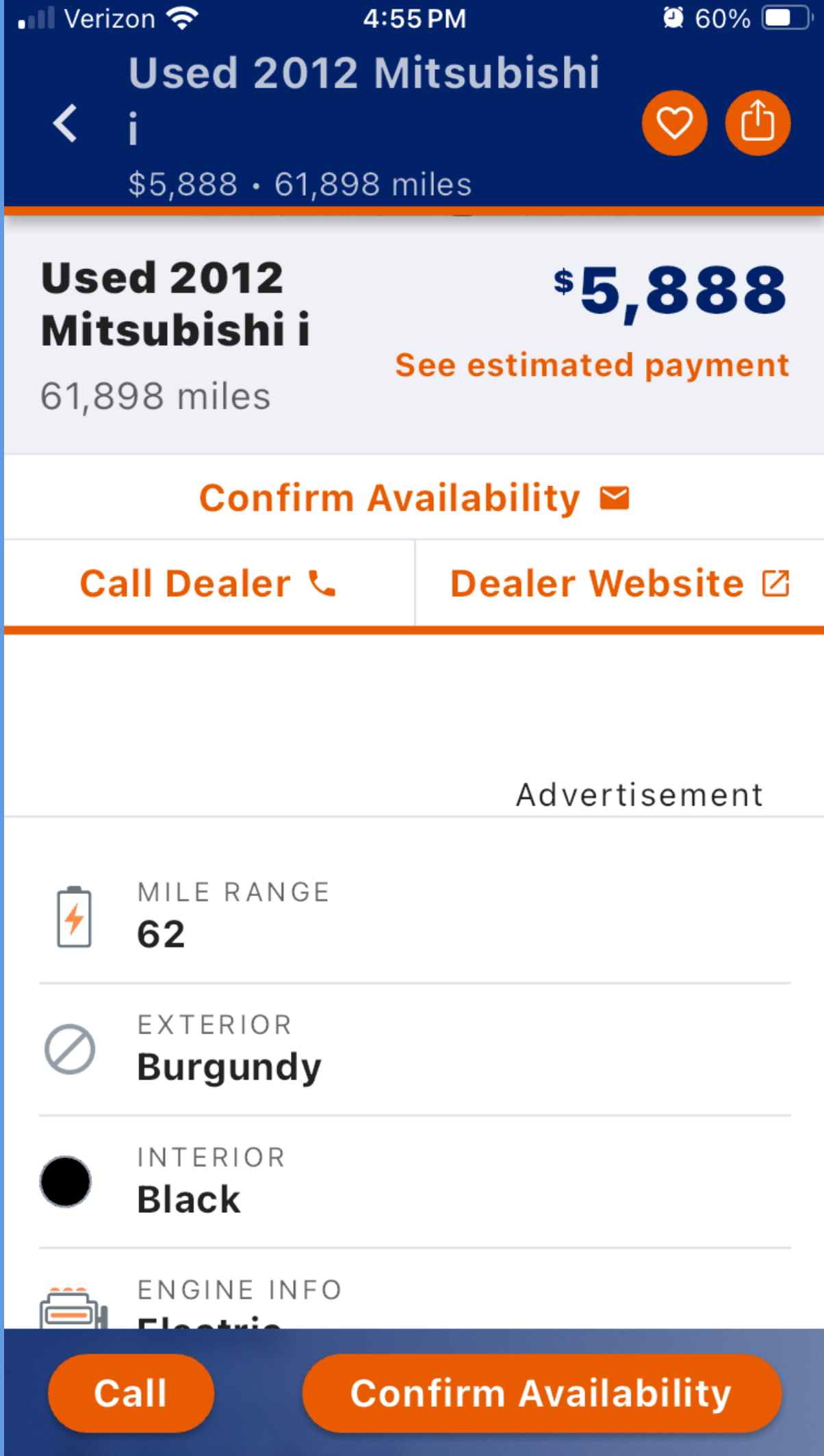
Session 5: The Market Place

# a used car thing



**Used 2012 Mitsubishi i**  
61,898 miles  
**\$5,888**  
[See estimated payment](#)

Perfection Auto ...  
Bloomin... (50.1 ... 



Verizon 4:55 PM 60%


Used 2012 Mitsubishi i  
\$5,888 • 61,898 miles


**Used 2012 Mitsubishi i** **\$5,888**  
61,898 miles [See estimated payment](#)


[Confirm Availability](#)


[Call Dealer](#) [Dealer Website](#)

Advertisement

 MILE RANGE **62**

 EXTERIOR **Burgundy**

 INTERIOR **Black**

 ENGINE INFO **Electric**

[Call](#) [Confirm Availability](#)


Only gets \$1776 tax credit = 30% of price.



# Looking Into Electric Cars


Session 5: The Market Place

# a used car thing



**2022 Tesla Model 3**  
**Base Sedan**                      **\$24,600**

Location: Des Plaines, IL  
64,226 miles  
Available 01/15/2024 if booked today.



# Looking Into Electric Cars

## Session 5: The Market Place

The end for now.

# Looking Into Electric Cars

## Session 5: The Market Place

The end for now.

# Looking Into Electric Cars

## Session 5: The Market Place

The end for now.