

Looking Into Electric Cars

Session 5 : What's available



For one million dollars

You get one Rimac Concept one

Or

40 Chevy Bolts



Session 5 : What's available



Chevy Bolt - price keeps changing

00000PS

Basic Chevy Bolt

MSRP \$27,200

Minus the Federal Tax credit -
\$7500. Also, IL rebate \$4000.

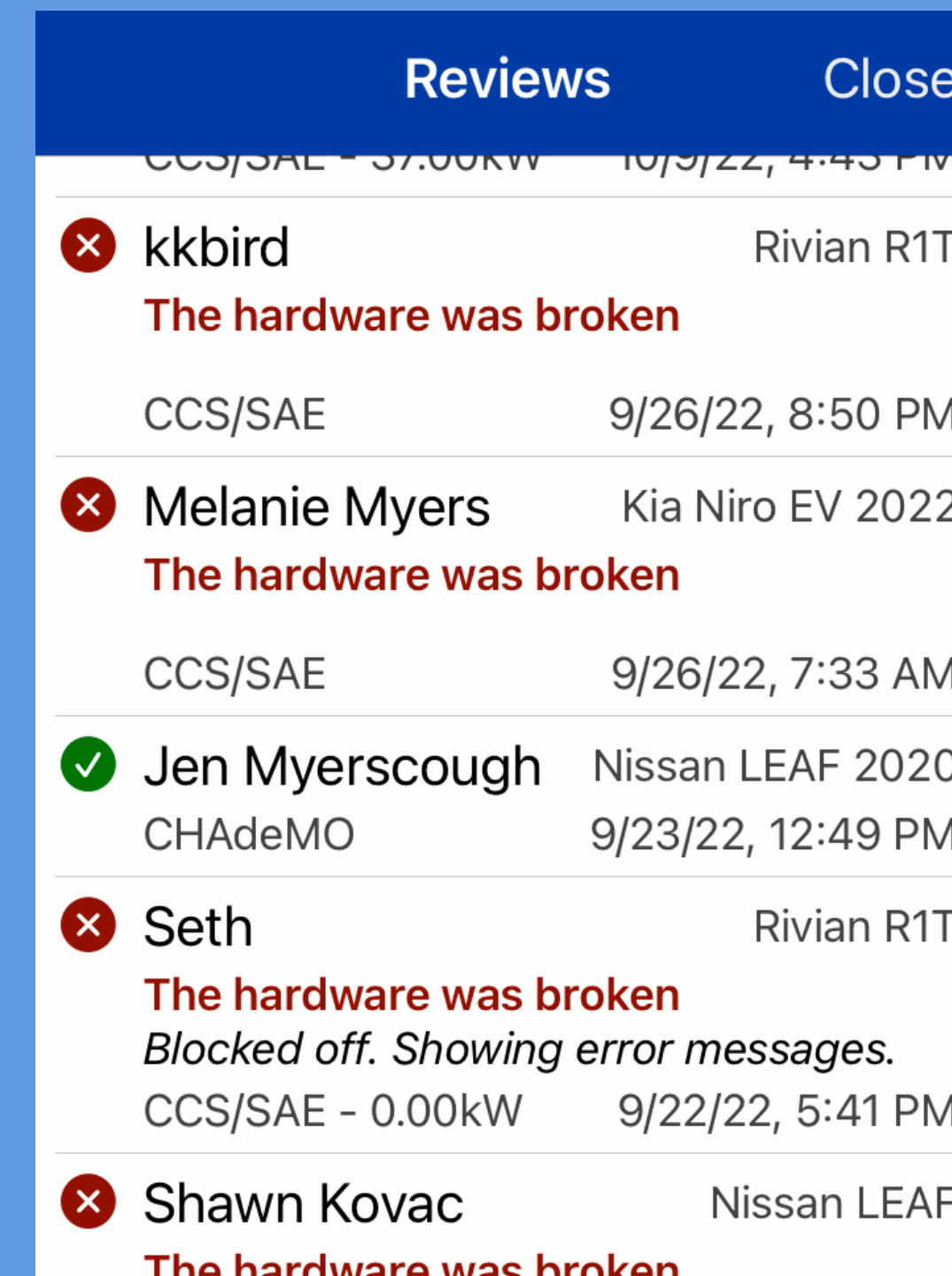
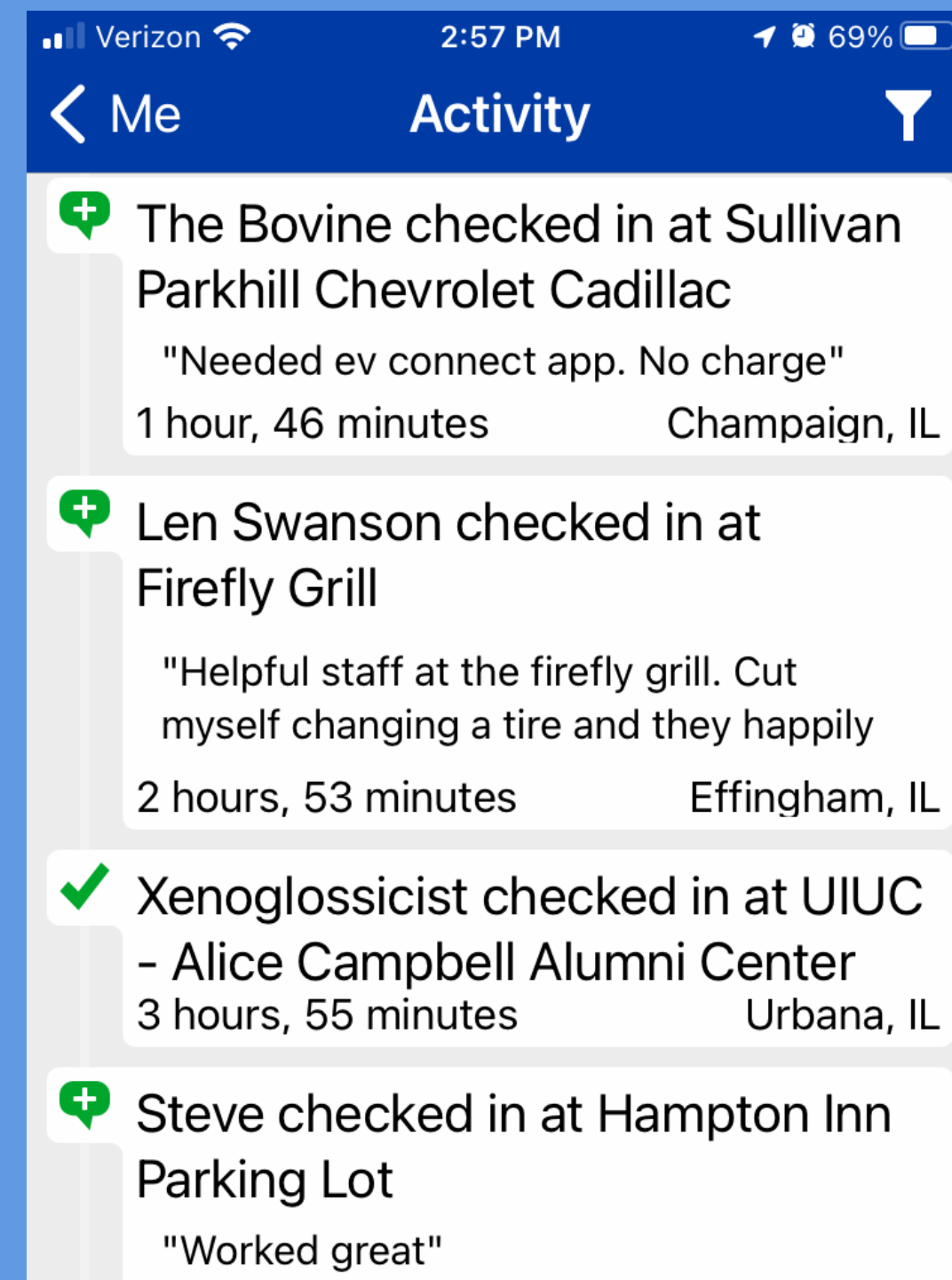
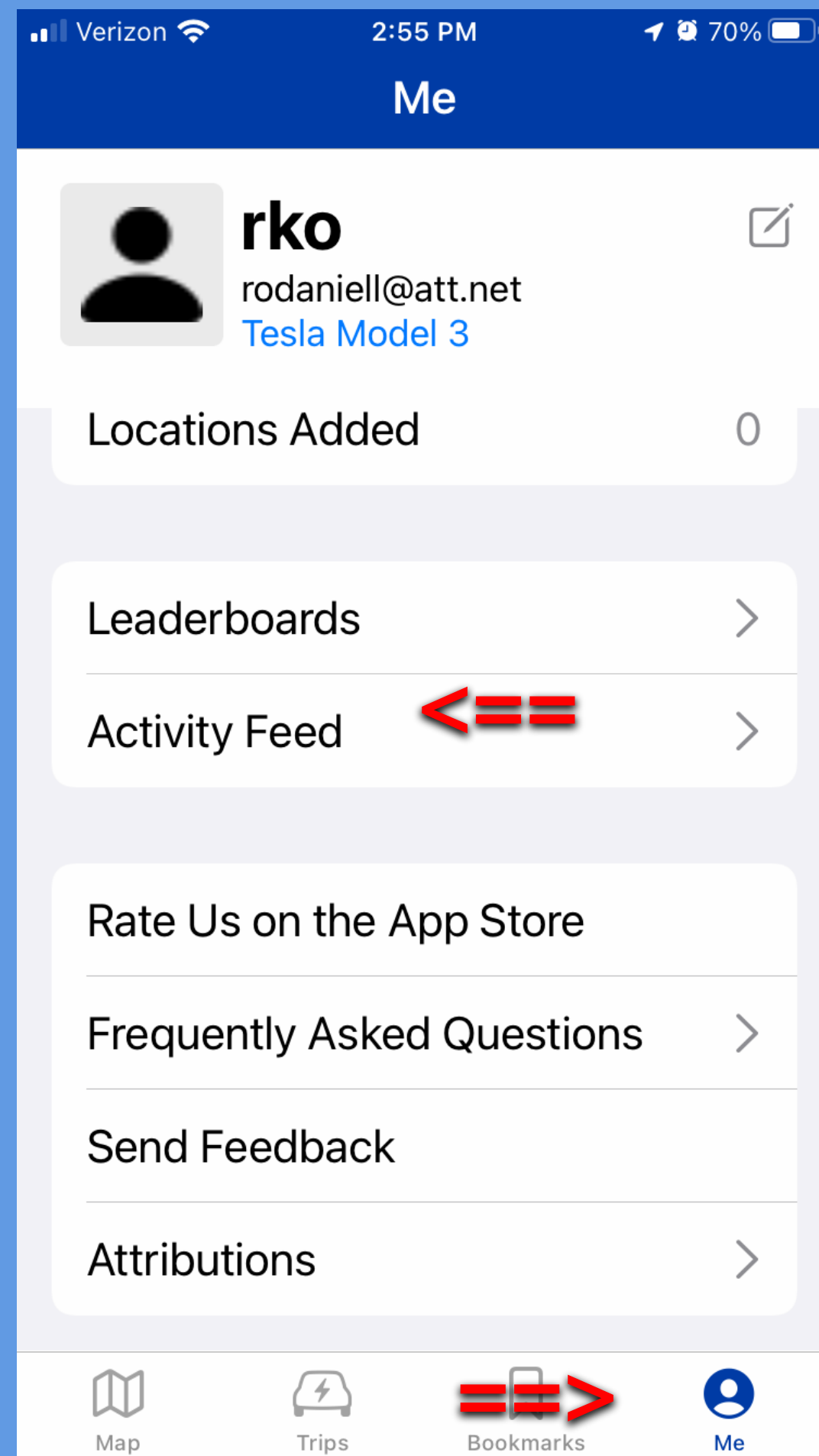
So the Bolt is \$16,000 ?? (NEW)

So that would be 71 Bolts.

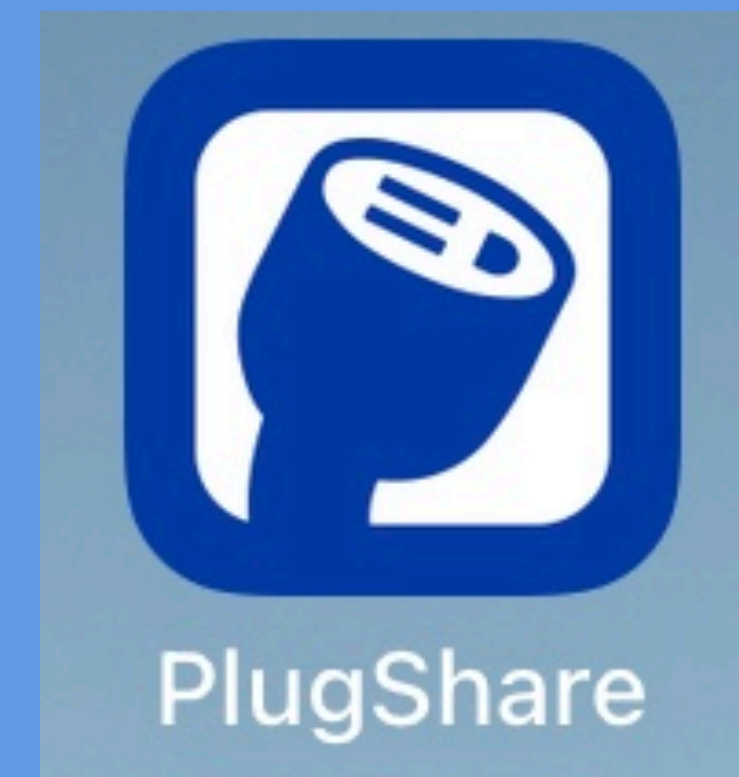
And they say EVs are expensive.

Session ??: Charger Apps

Plugshare is a crowd source App



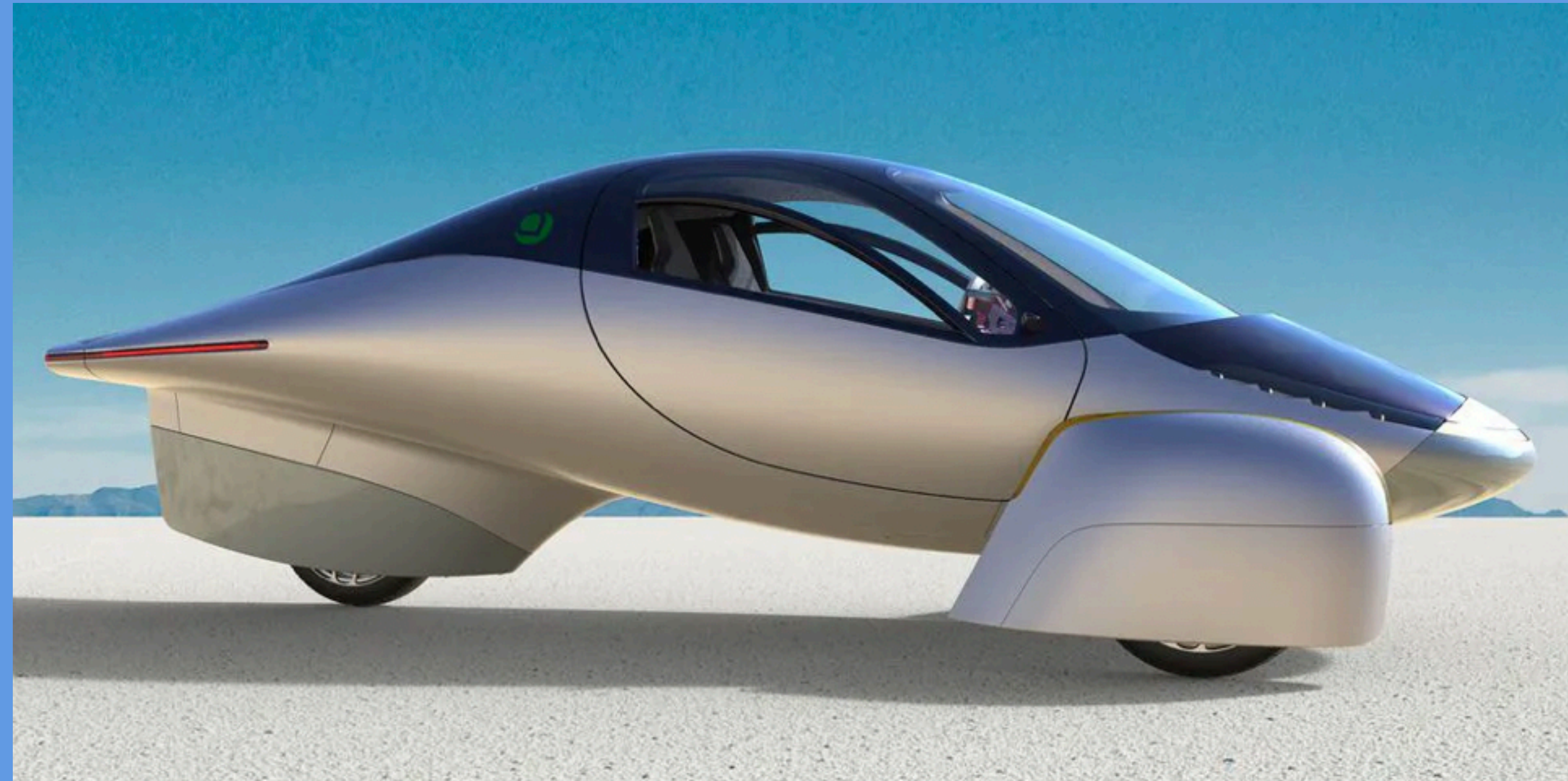
The "reviews" are checkins posted directly to a specific charger location, in this case the Wally's in Pontiac, still having charger problems.



Plugshare

EV users locate, comment on, describe, add photos and review public chargers. Click on the "me" at the bottom, then "activity feed" (red arrows) and you will get the most recent checkins from an area within 50 miles or so from your current location.

Session 5 : What's available



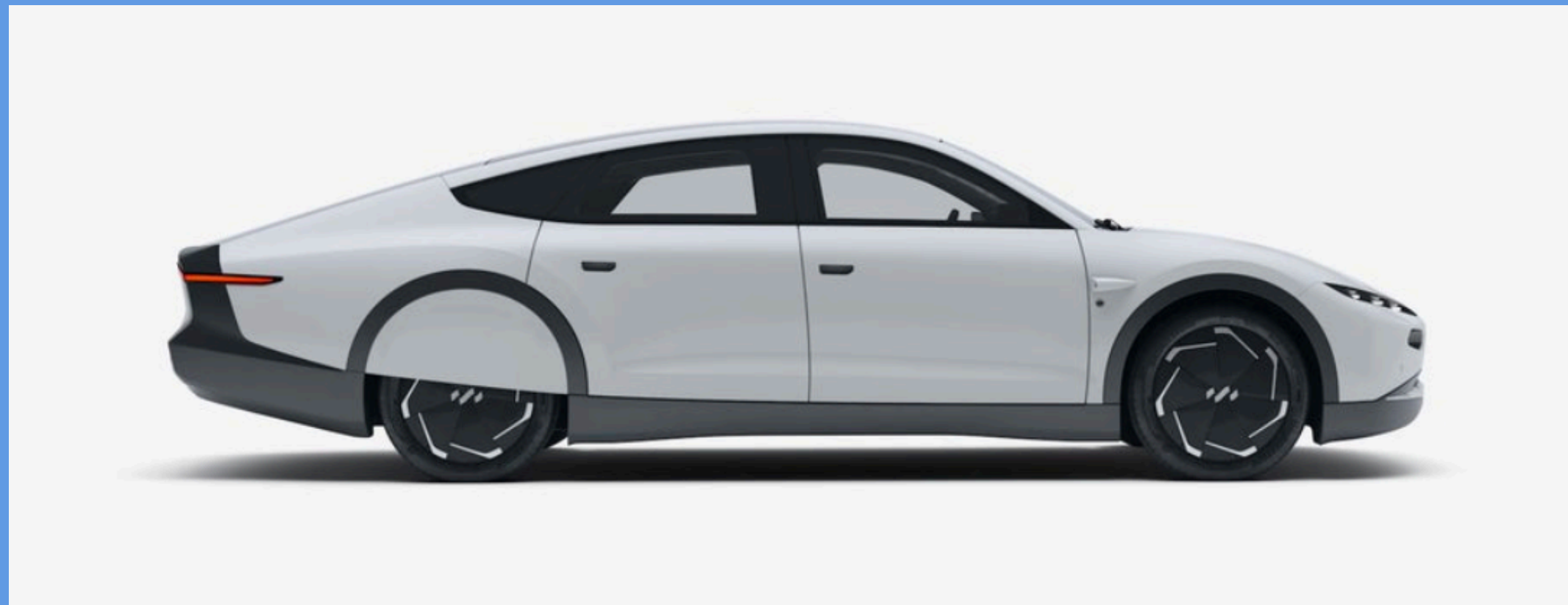
Aptera

I'm not including the odd cars. What got me interested on the ID4 is the review that said it was boring. A good solid car designed that drove well and just looked like a car. PS will not qualify for tax credits (its a 3 wheeler)

Session 5 : What's available

Aptera

I'm not including the odd cars.
(Not really) Solar Powered 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



Sono Motors Scion
\$25000

Solar charge = 10 miles a day
Battery range only about 180 mile.

Session 5 : What's available

Four things to consider in buying an EV

- 1) The Illinois Rebate is a given. Federal tax credit varies by individual
- 2) TCO – (total cost of ownership) is what makes it affordable – how much you drive makes a difference. Amazon delivery vans drive many miles – save a truckload of money (pun intended.)
- 3) you have to like the car. How much you drive makes a difference.
- 4) I believe the DCFC is more important than range.

Session 5 : What's available

2022 US EV Sales

MODEL	UNITS
Cadillac Lyriq	200
Chevy Bolt	7,505
Chevy Bolt EUV	19,618
GMC Hummer pickup	852
Audi e-tron	9,162
BMW iX	3,883
BMW i4	4,601
Ford Mustang Mach-E	31,144
Hyundai Ioniq 5	20,071
Kia EV6	18,750
Mercedes-Benz EQS	6,220
Nissan Leaf	10,045
Polestar 2	7,525
Porsche Taycan	6,599
Rivian R1T	9,762
Telsa Model 3	156,300
Tesla Model Y	165,900
Toyota bZ4X	235
Volkswagen ID.4	13,563

2022 sales for EVs in the US. Tesla is the leader, sales of other models increasing. Odd Ford Lightning isn't on this list.

GM cars are in yellow because it was with an article about GM profitability of its EVs.

Through October

Autoweek

Session 5 : What's available

List of cars eligible for tax credit *

Although we don't know which vehicles will meet the battery portion of the tax credit, these are the current and [upcoming models](#) made in North America with versions that cost less than the bill requires:

- [Cadillac Lyriq](#) (only if it is classified as an SUV)
- [Chevrolet Blazer EV](#)
- [Chevrolet Bolt](#)
- [Chevrolet Bolt EUV](#)
- [Chevrolet Silverado EV](#) (with certain options and trim levels)
- [Ford F-150 Lightning](#) (with certain options and trim levels)
- [Ford Mustang Mach-E](#)
- [Nissan Leaf](#)
- [Rivian R1S](#) (with certain options and trim levels)
- [Rivian R1T](#) (with certain options and trim levels)
- [Tesla Cybertruck](#) (with certain options and trim levels)
- [Tesla Model 3](#) (with certain options and trim levels)
- [Tesla Model Y](#) (only if it is classified as an SUV, and only with certain options and trim levels)
- [Volkswagen ID.4](#) (only 2023+ models made in Tennessee)

This list changes
and is still changing.
And the tax credit is
actually 2 \$3750 credits.
One for assembly in the
US. The other for North
American sourcing for the
battery. Being on the list
is not that important.
Have Vin # checked for
country of origin.

Session 5 : What's available

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

Two exceptions with no Federal incentives :
Toyota Prius
And Hyundai Ioniq 5

I picked nine cars to go over.

Two short range cars:

Chevy Bolt

Nissan Leaf.

Four longer range cars:

VW ID.4

Ford Mustang Mach-E

Ford Lighting (Pick-up)

Tesla Model 3

And two Plug-in hybrids

Ford Escape

Toyota Prius

and Hyundai Ioniq 5

Session 5 : What's available

Chevy Bolt

Chevrolet
Bolt EV 1LT

From Electric for All



PRICE ESTIMATE*

SEATS: 5

**With my Nov 27 corrections. MSRP.
\$25,595**

**This price becomes \$17,850 after fed credit
(1/2) & Illinois rebate**

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

2%



Range added in

60
minutes

Level 1

5 mi

17%



Range added in

41
mi*

Level 2

mi*

At Fast Charge Stations

19%



Range added in

15
minutes

Typical

44 mi

21%



Range added in

49
mi*

Max

mi*

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

Session 5 : What's available

Chevy Bolt

Chevrolet
Bolt EV 1LT

From Electric for All



PRICE ESTIMATE*

SEATS: 5

**With my Nov 27 corrections. MSRP.
\$25,595**

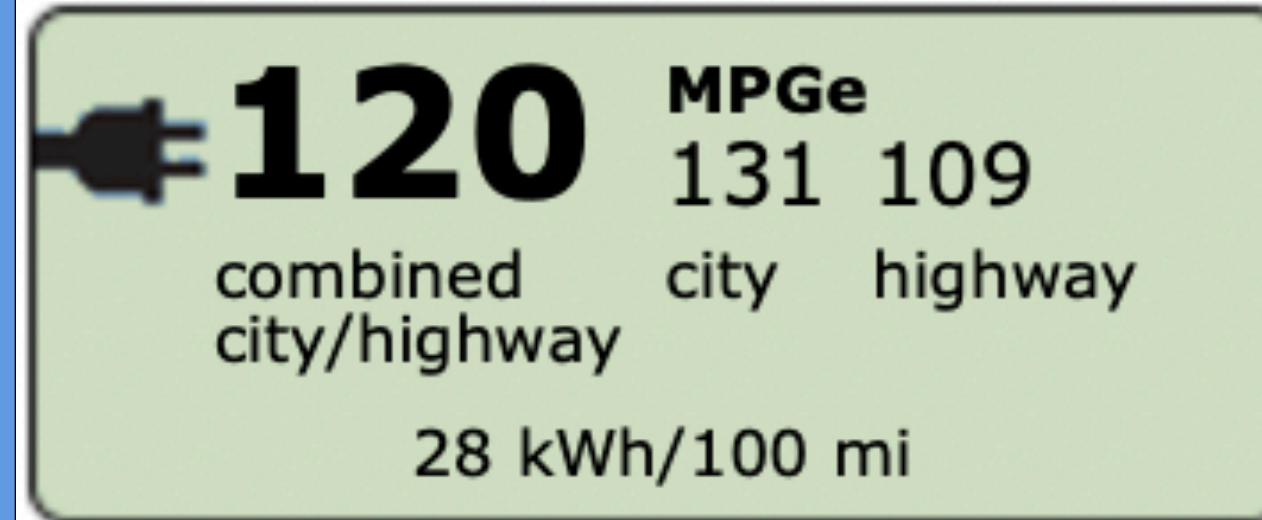
**This price becomes \$17,850 after fed credit
(1/2) & Illinois rebate**

EV DETAILS

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

Electricity

From EPA



Electricity



259 miles
Total Range

From EPA

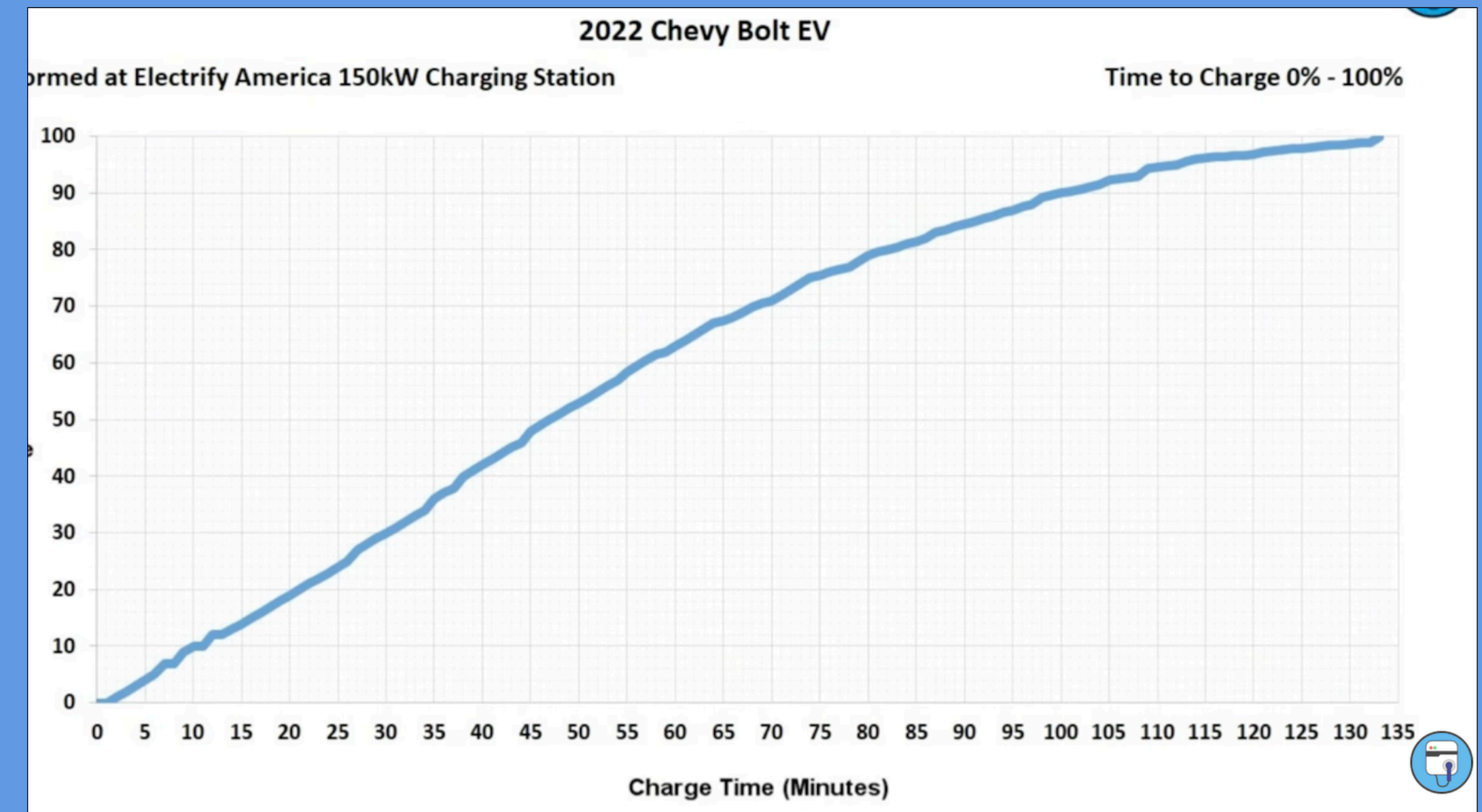
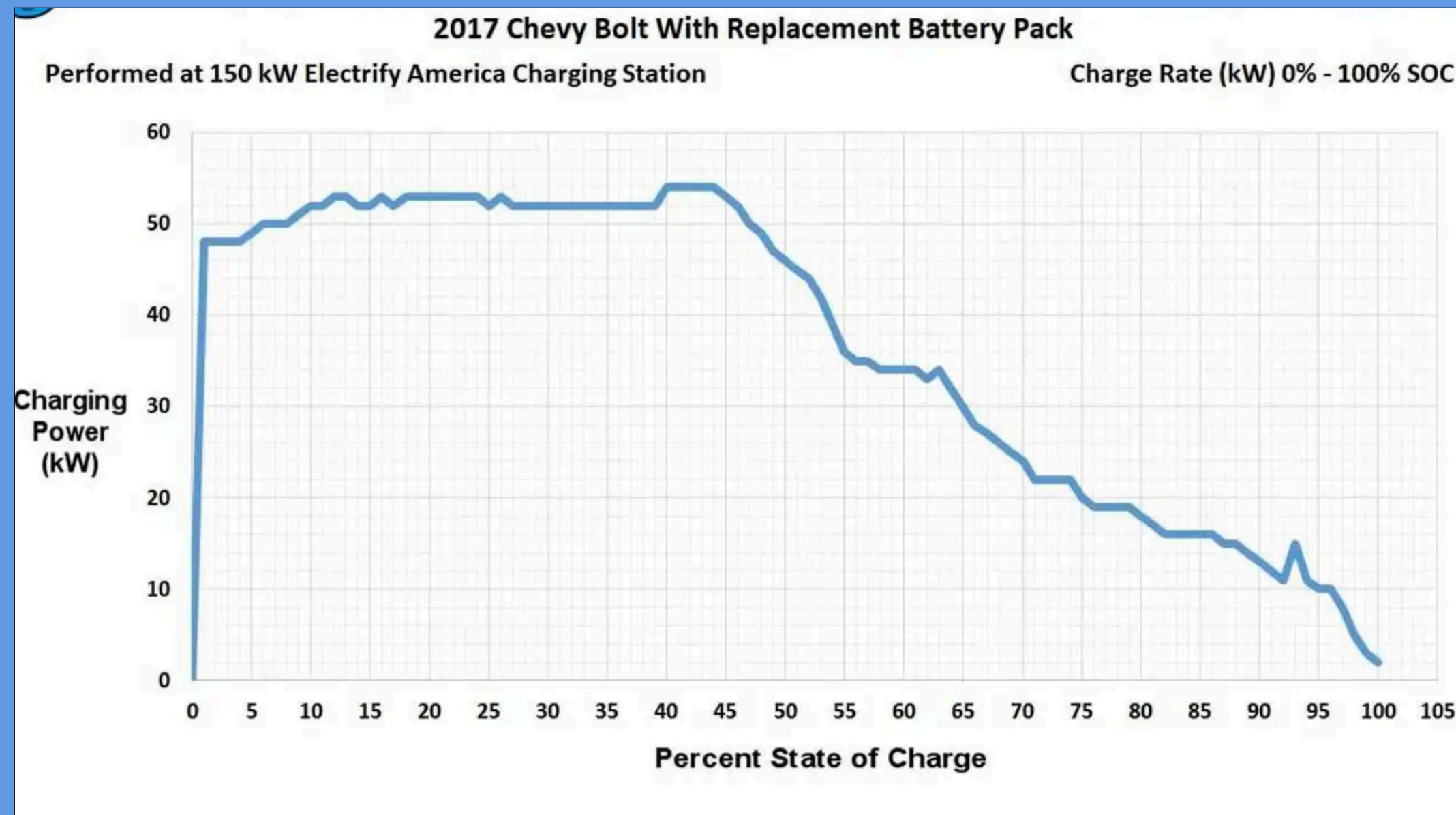
Available through
dealers

Charger included



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

Session 5 : What's available

Chevy Bolt

Notes for Bolt

Fed tax credit is actually
\$3750 for US assembly
&
\$3750 for North American Battery

The Bolt might not qualify for the battery part.

For level 1 charging the default is 8 amps = about 25 miles per 10 hours. If you want more EACH TIME you charge you need to change the setting in the car and you can get about 40.

Chevrolet

Bolt EV 1LT

From Electric for All





PRICE ESTIMATE*

SEATS: 5

**With my Nov 27 corrections. MSRP.
\$25,595**

**This price becomes \$17,850 after fed credit
(1/2) & Illinois rebate**


EV DETAILS

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

Session 5 : What's available

Nissan Leaf



Nissan □
LEAF S From Electric for All




PRICE ESTIMATE* *SEATS: 5*

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

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	149 Miles	149 Miles	HOV


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

From Plugstar **Recharge Speed**

Home and Away			At Fast Charge Stations		
3%		Range added in	16%		Range added in
Level 1			Level 2		
4 mi			22 mi*		41 mi*

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

Session 5 : What's available

Nissan Leaf

Nissan
LEAF S



From Electric for All



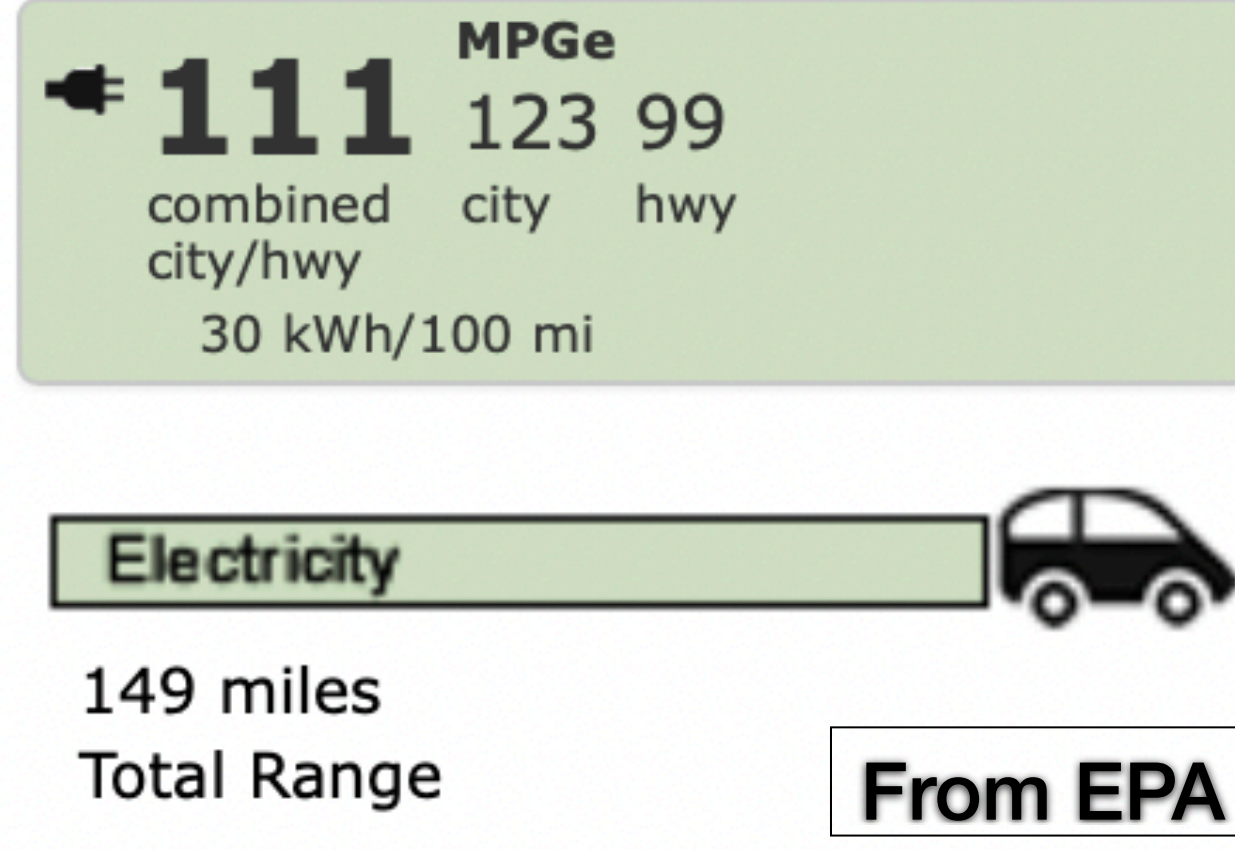
PRICE ESTIMATE*

SEATS: 5

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

EV DETAILS

Car Type	Electric	Range	Total Range	
	BEV	149 Miles	149 Miles	HOV



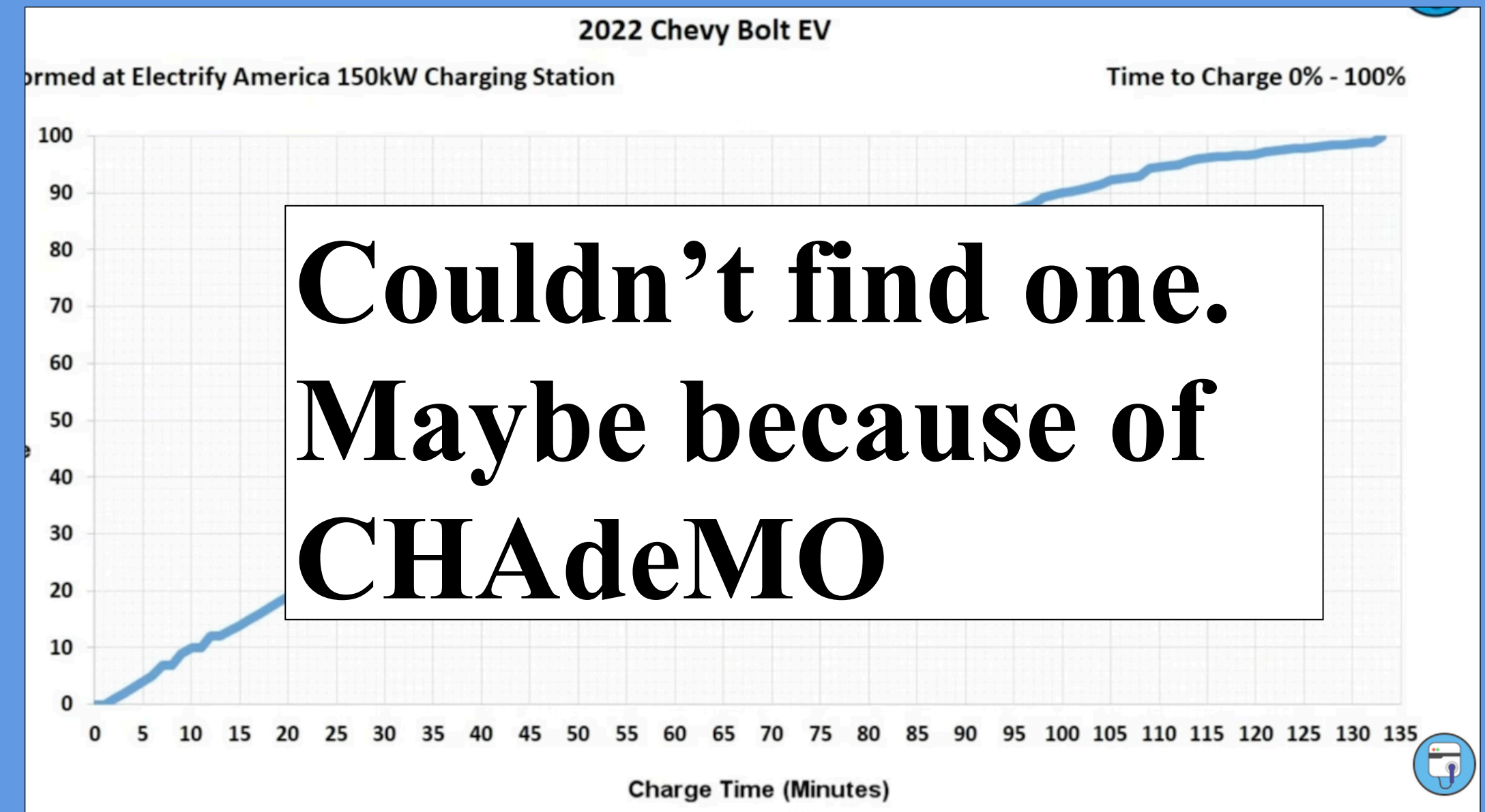
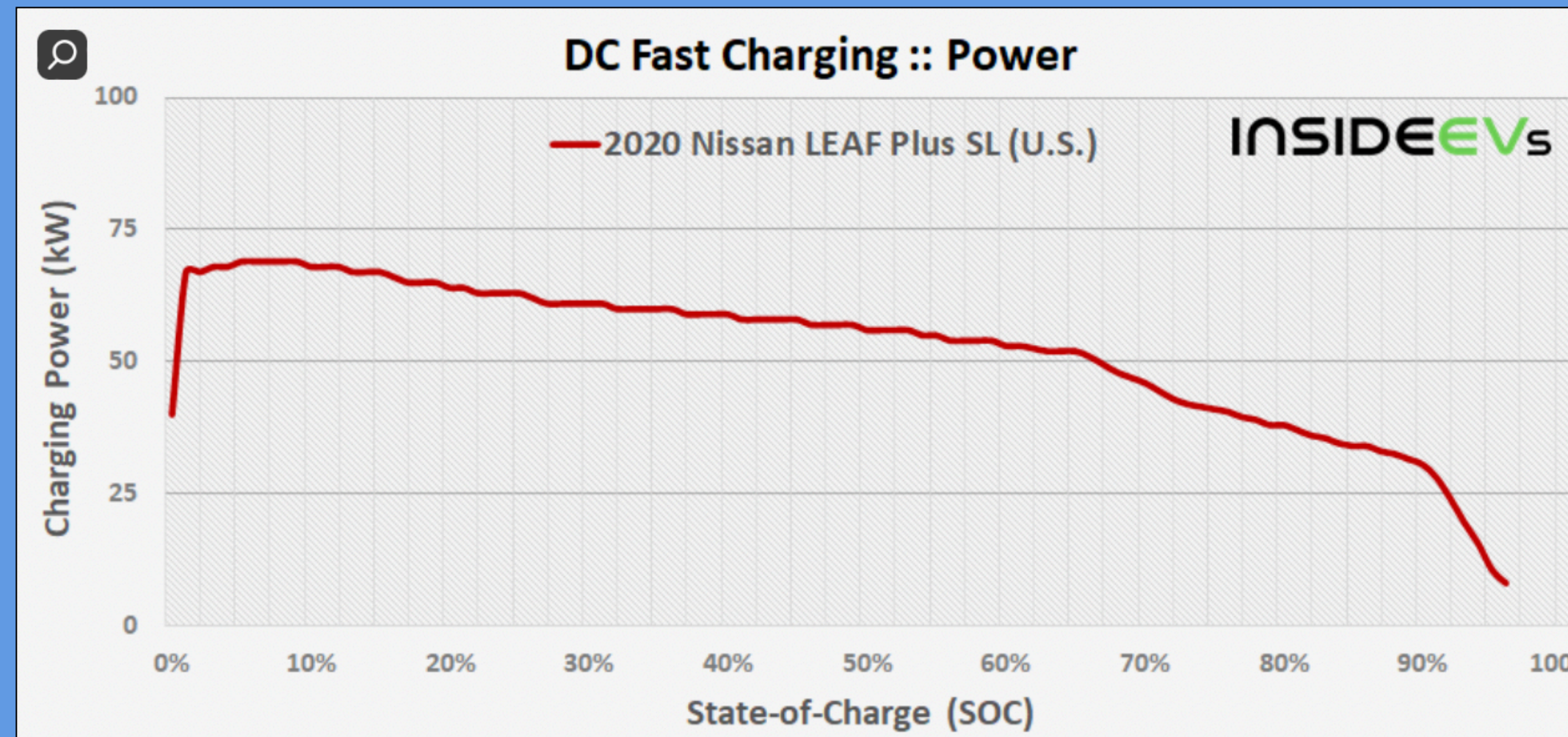
**Charger included
110 only**



**Available through
dealers**

Session 5 : What's available

Nissan Leaf



Notes for Bolt


DCFC rate peaks at 70 kw
&
Time to 80% = ?? minutes
Time to 100% = ?? Minutes

Session 5 : What's available

Nissan Leaf

Nissan



LEAF S **From Electric for All**



PRICE ESTIMATE* SEATS: 5

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

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	149 Miles	149 Miles	HOV

Notes for Leaf

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

Fed tax credit is actually

\$3750 for North American Battery
&
\$3750 for NA minerals

Session 5 : What's available

VW ID.4

Volkswagen

ID.4

From Electric for All





PRICE ESTIMATE*

SEATS: 5

With my Nov 27 corrections. MSRP. \$42,495

This price becomes \$30,995 after fed credit (1/2) & Illinois rebate

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	280 Miles	280 Miles	HOV

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

1%



Level 1

4 mi

Range added in



60

minutes



13%

Level 2

32 mi*

At Fast Charge Stations

15%



Typical

36 mi

Range added in



15

minutes



41%

Max

99 mi*


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

Session 5 : What's available

VW ID.4

Volkswagen



ID.4 **From Electric for All**





PRICE ESTIMATE* *SEATS: 5*

With my Nov 27 corrections. MSRP. \$42,495
This price becomes \$30,995 after fed credit (1/2) & Illinois rebate

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	280 Miles	280 Miles	HOV

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

Electricity 

260 miles
Total Range

From EPA

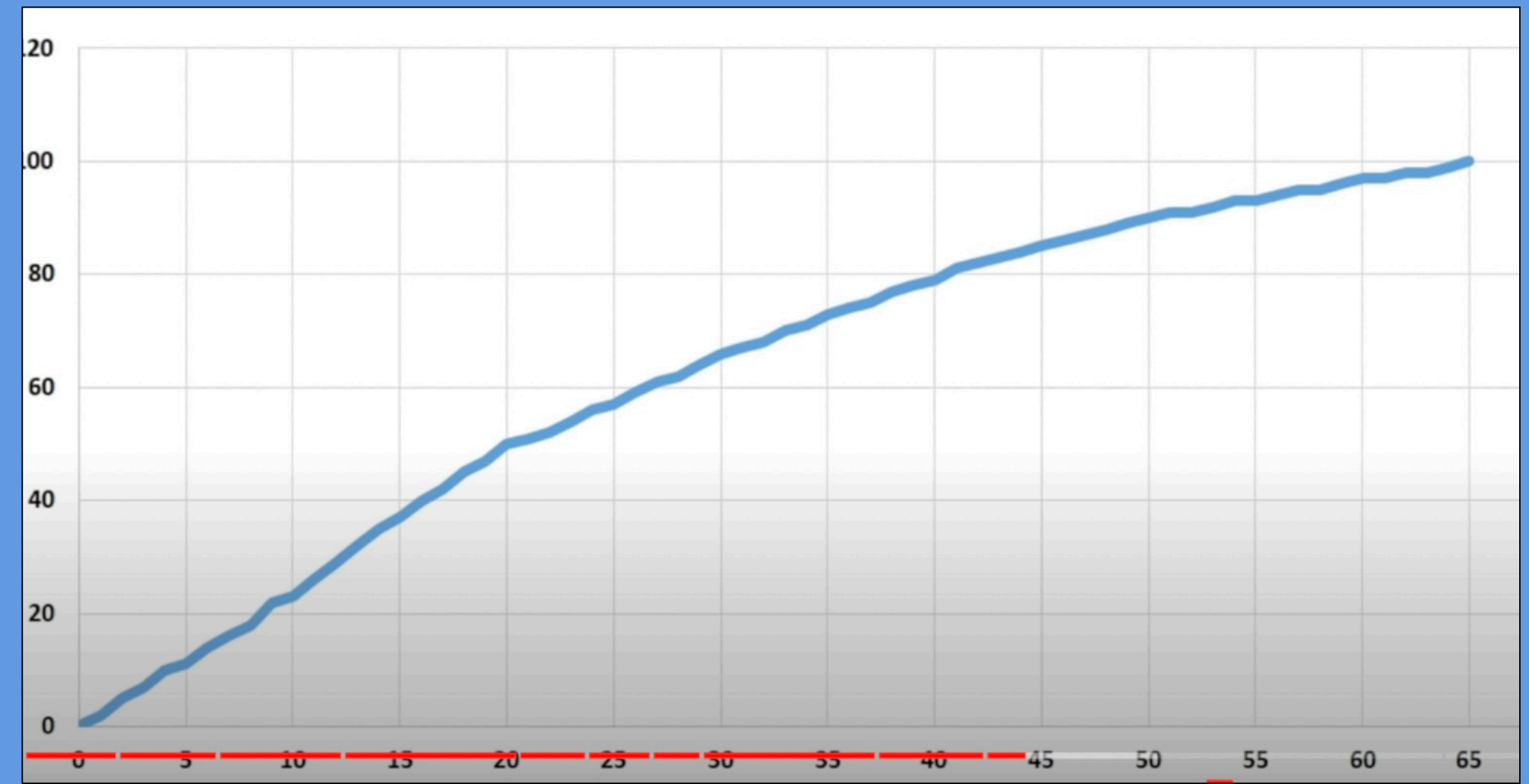
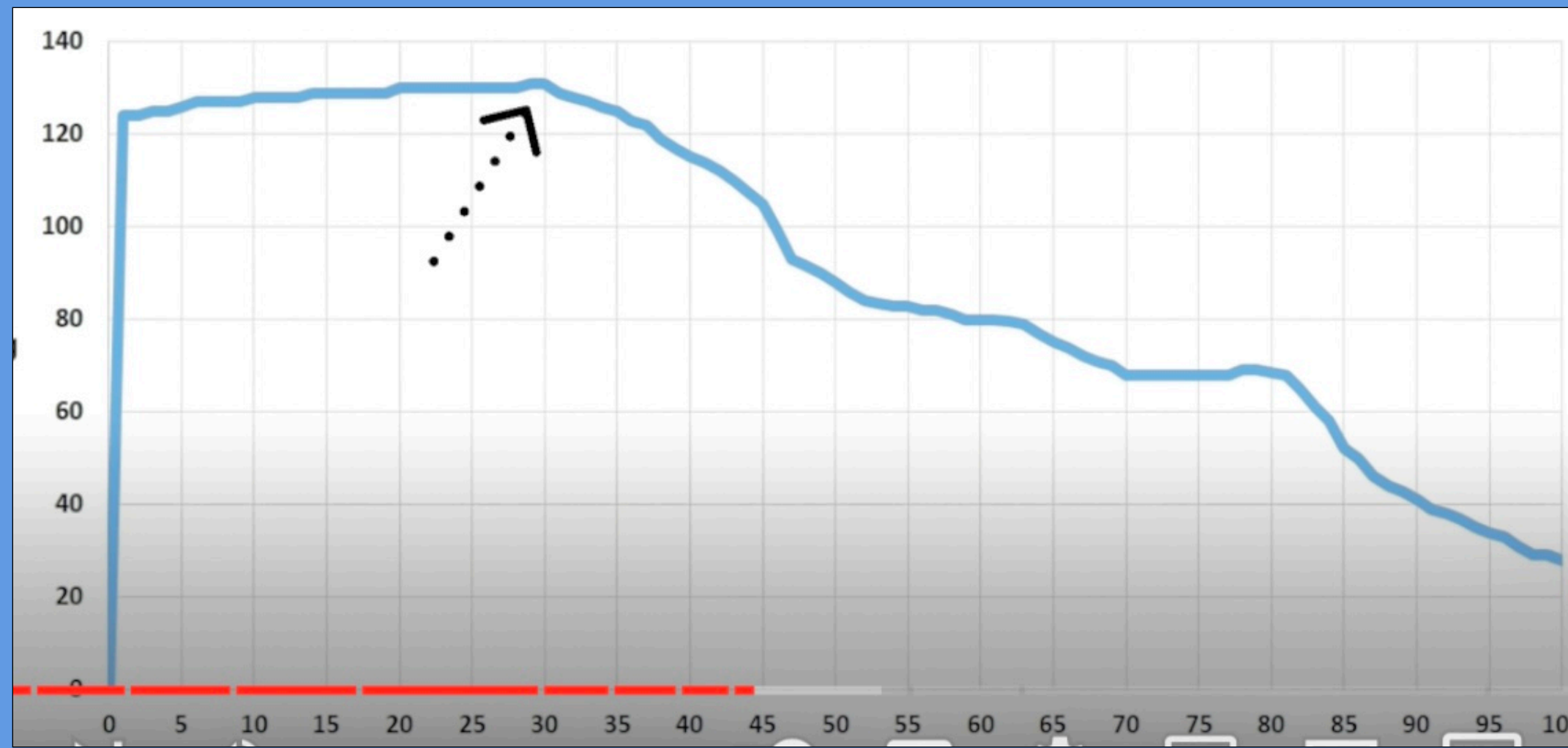
Charger no longer included.

Replaced by \$200 voucher towards a charger.

Online ordering available

Session 5 : What's available

VW ID.4



Notes for VW ID.4


DCFC rate peaks at 125 kw
&
Time to 80% = 40 minutes
Time to 100% = 65 minutes

Session 5 : What's available

VW ID.4

Volkswagen



ID.4 **From Electric for All**



PRICE ESTIMATE* *SEATS: 5*

**With my Nov 27 corrections. MSRP.
\$42,495**
**This price becomes \$30,995 after fed credit
(1/2) & Illinois rebate**

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	280 Miles	280 Miles	HOV

Notes for VW ID.4

Most ID.4s are now assembled in North America (Chattanooga, Tenn.). There are still some out there assembled in Germany. To be sure of tax credit status check the VIN. Preferably before purchase.

<https://afdc.energy.gov/laws/electric-vehicles-for-tax-credit>


Session 5 : What's available

Mustang Mach-E

Ford □

Mustang Mach E Select

From Electric for All





PRICE ESTIMATE* SEATS: 5


With my Nov 27 corrections. MSRP. \$46,895

This price becomes \$35395 after fed credit (1/2) & Illinois rebate

EV DETAILS

Car Type	Electric Range	Total Range	 HOV
 BEV	230 Miles	230 Miles	


Basic Specs


Crossover

5
Seats

34.4-64.4
cu. ft. Cargo Space


Fuel Type & Range


All-Electric


230
Electric Miles

70
Battery Size (kWh)

Acceleration


5.8 seconds
to 60 miles per hour

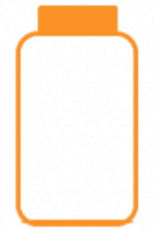



Safety


NHTSA Rating

N/A
IIHS Top Safety Pick

From Plugstar


Recharge Speed

Home and Away			At Fast Charge Stations		
2%		Range added in	15%		Range added in
Level 1		60 minutes	Level 2	Typical	
4 mi			31 mi*	37 mi	Max
				85 mi*	

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

Session 5 : What's available

Ford □
Mustang Mach E Select
From Electric for All




PRICE ESTIMATE* SEATS: 5

With my Nov 27 corrections. MSRP. \$46,895
This price becomes \$35395 after fed credit (1/2) & Illinois rebate

EV DETAILS

Car Type	Electric Range	Total Range	◇ HOV
BEV	230 Miles	230 Miles	

97 **MPGe**
104 90
combined city hwy
city/hwy
35 kWh/100 mi

Electricity 


303 miles
Total Range **From EPA**

Online ordering available
(30-35 weeks wait)

PlugStar range 230
EPA range 303
Ford website range 247

Mustang Mach-E

Charger included.

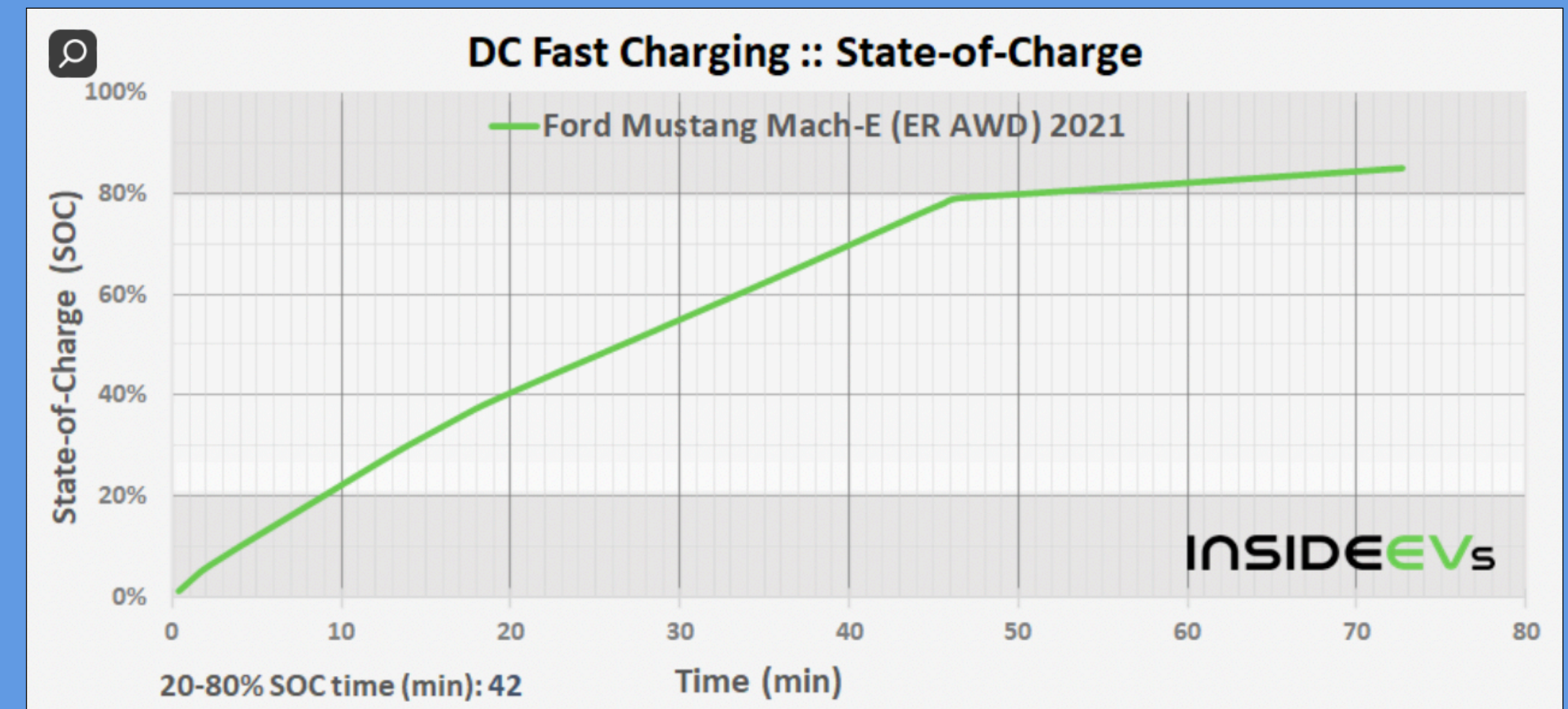
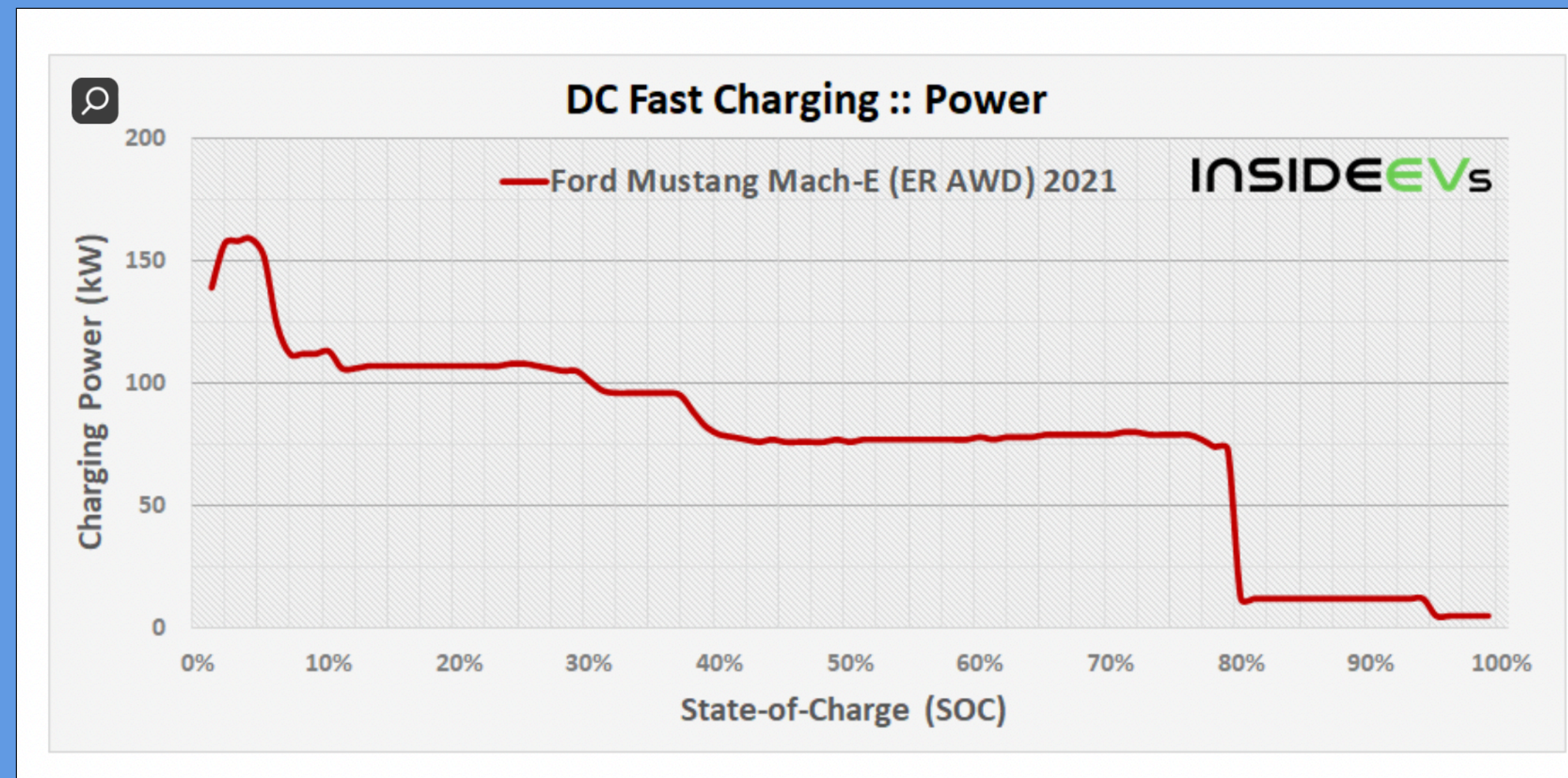


Ford Mobile Power Cord

\$500 [Details](#)

Session 5 : What's available

Mustang Mach-E




Notes for Mustang Mach- E
DCFC rate peaks at 115 kw kinda
&
Time to 80% = 45 minutes
Time to 100% = ?? minutes

Ford

Mustang Mach E Select



From Electric for All



PRICE ESTIMATE* *SEATS: 5*

**With my Nov 27 corrections. MSRP.
\$46,895**
**This price becomes \$35395 after fed credit
(1/2) & Illinois rebate**

EV DETAILS

Car Type	Electric Range	Total Range	
 BEV	230 Miles	230 Miles	HOV

Notes for Mustang Mach-E

Fed tax credit is actually

**\$3750 for North American Battery
&
\$3750 for NA minerals**


Session 5 : What's available

Ford Lightning

Ford □

F-150 Lightning Pro



From Electric for All




PRICE ESTIMATE* SEATS: 5

\$ 47,874

With my Nov 7 corrections. MSRP. \$51,974
This price becomes \$40,474 after fed credit (1/2) & Illinois rebate

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


Basic Specs


Pickup Truck

5
Seats

66.9
cu. ft. Cargo Space


Fuel Type & Range


All-Electric


240
Electric Miles

98
Battery Size (kWh)

Acceleration


5 seconds
to 60 miles per hour

Safety




NHTSA Rating


N/A
IIHS Top Safety Pick

From Plugstar

Recharge Speed



Home and Away


1%  Range added in  11%

Level 1  **60** minutes

Level 2 **24** mi*

At Fast Charge Stations

12%  Range added in  38%

Typical **26 mi**  **15** minutes

Max **79** mi*


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

Session 5 : What's available

Ford □

F-150 Lightning Pro



From Electric for All





PRICE ESTIMATE* SEATS: 5

\$ 47,874

With my Nov 7 corrections. MSRP. \$51,974
This price becomes \$40,474 after fed credit (1/2) & Illinois rebate

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

68 MPGe
 76 61
 combined city hwy
 city/hwy
 49 kWh/100 mi

Electricity  


230 miles
 Total Range

From EPA

Online ordering not available

Ford Lightning

Ford Mobile Power cord is included

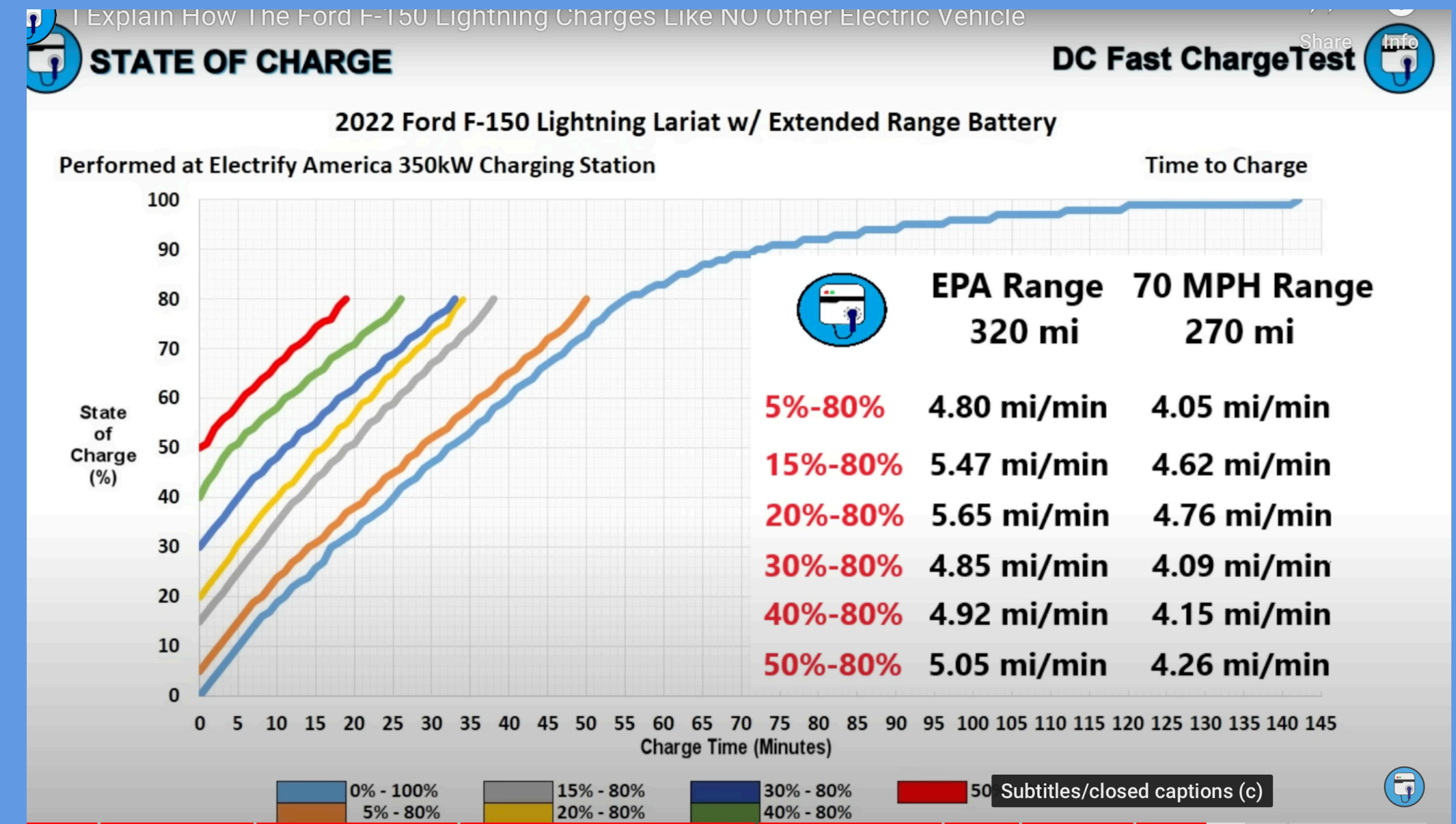
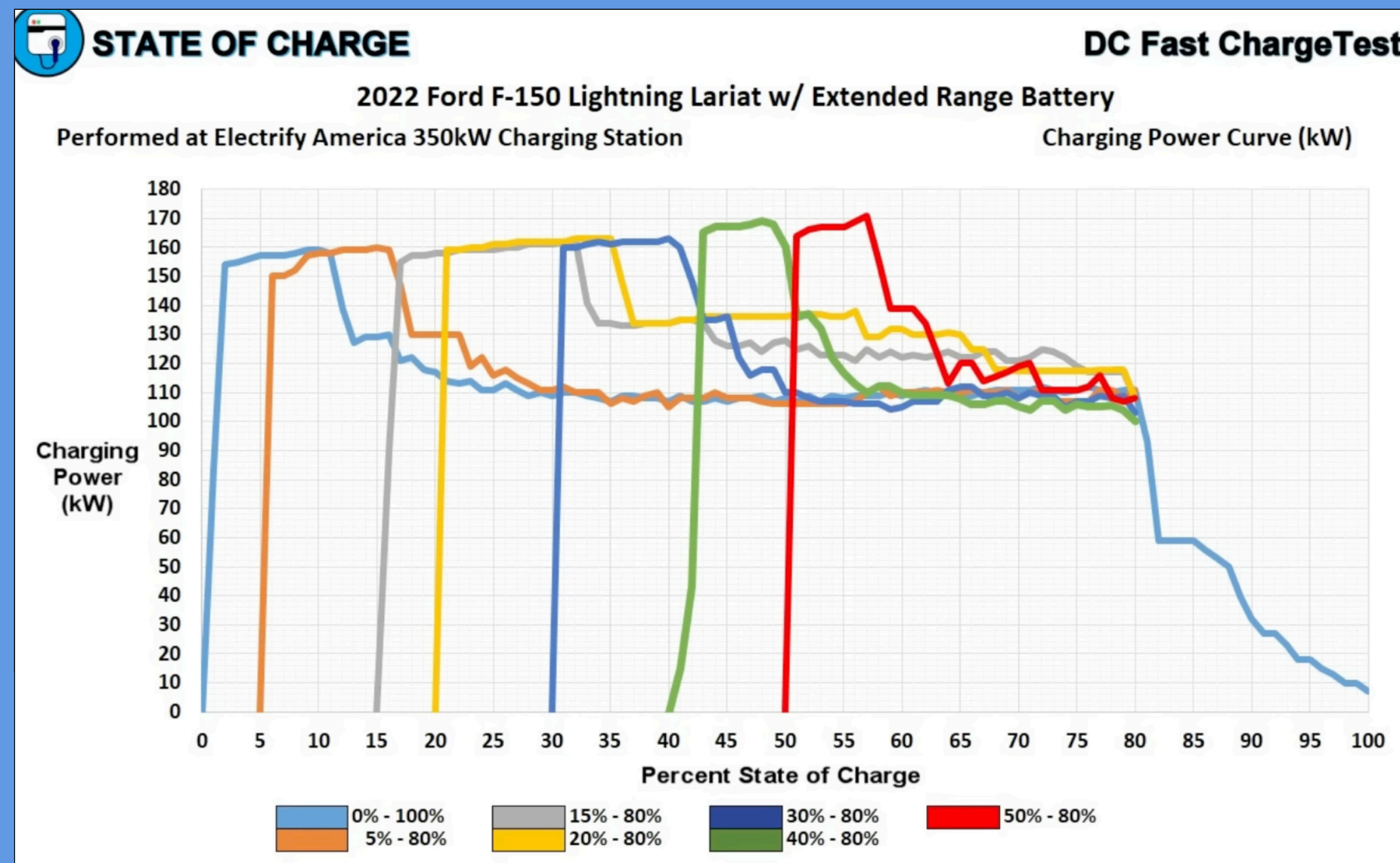


Ford Mobile Power Cord

\$500 Details

Session 5 : What's available

Ford Lightning



Notes for Lightning

DCFC rate peaks at 160 kw
&
Time to 30-80% = 33 minutes
Time to 100% = 100 minutes

Amazing charge curves.
(I wish my car had it)
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.


Session 5 : What's available

Ford Lightning

Ford

F-150 Lightning Pro



From Electric for All



PRICE ESTIMATE* SEATS: 5

\$ 47,874

With my Nov 7 corrections. MSRP. \$51,974
This price becomes \$40,474 after fed credit (1/2) & Illinois rebate

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

Notes for Ford Lightning

Fed tax credit is actually

**\$3750 for North American Battery
&
\$3750 for NA minerals**

**Side note Ford transit vans are
assembled in Europe.**


Session 5 : What's available

Tesla model 3

Tesla □

Model 3 RWD



From Electric for All




PRICE ESTIMATE* *SEATS: 5*

\$ 46,990


With my Nov 27 corrections. MSRP. \$46,895
This price becomes \$35395 after fed credit (1/2) & Illinois rebate

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


Basic Specs

-  Sedan
- 5** Seats
- 23** cu. ft. Cargo Space

Fuel Type & Range

-  All Electric
- 272** Electric Miles
- 60** Battery Size (kWh)

Acceleration



5.8 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			
2%  Level 1 5 mi	Range added in  60 minutes	12%  Level 2 30 mi*		20%  Typical 50 mi	Range added in  15 minutes	70%  Max 170 mi*

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

Session 5 : What's available



Tesla □
Model 3 RWD
 From Electric for All

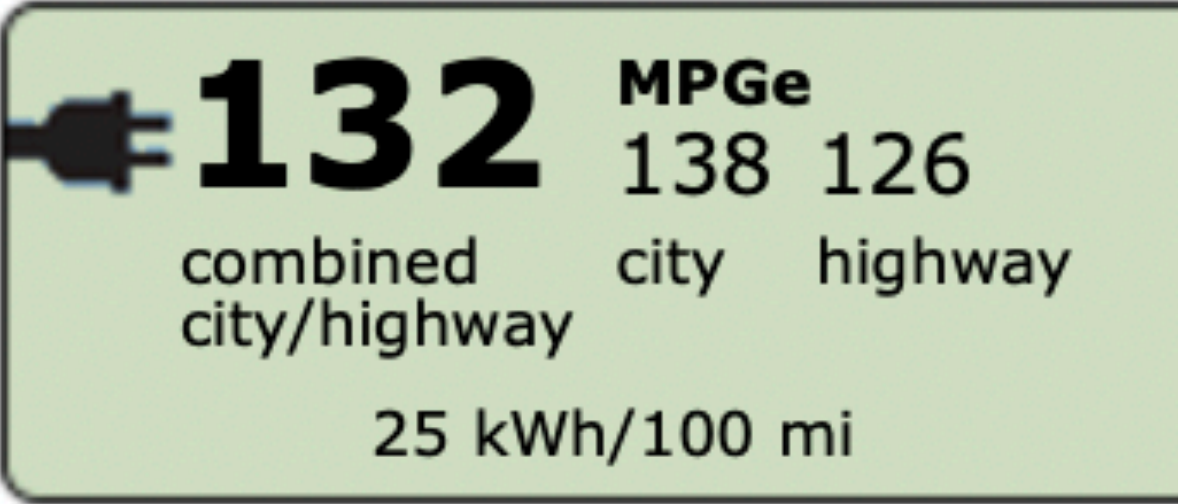


PRICE ESTIMATE* SEATS: 5


\$ 46,990

With my Nov 27 corrections. MSRP. \$46,895
 This price becomes \$35395 after fed credit (1/2) & Illinois rebate

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



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

Electricity  272 miles
 Total Range

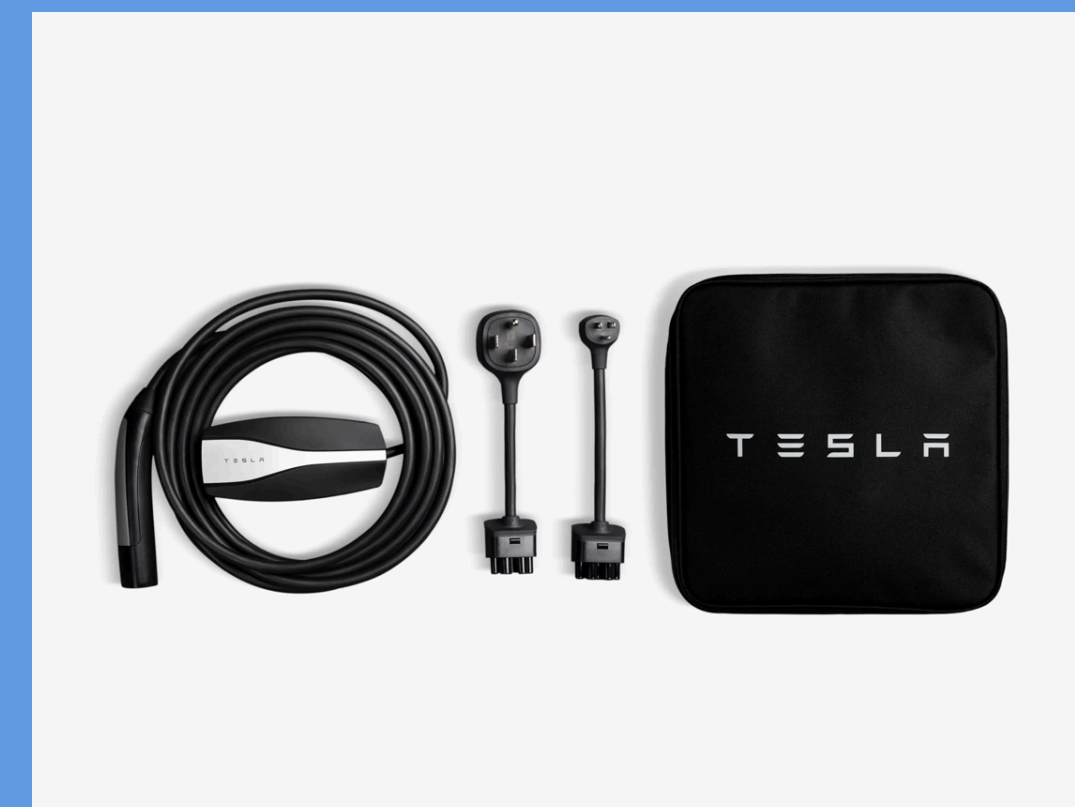
From EPA

Online ordering

Tesla model 3

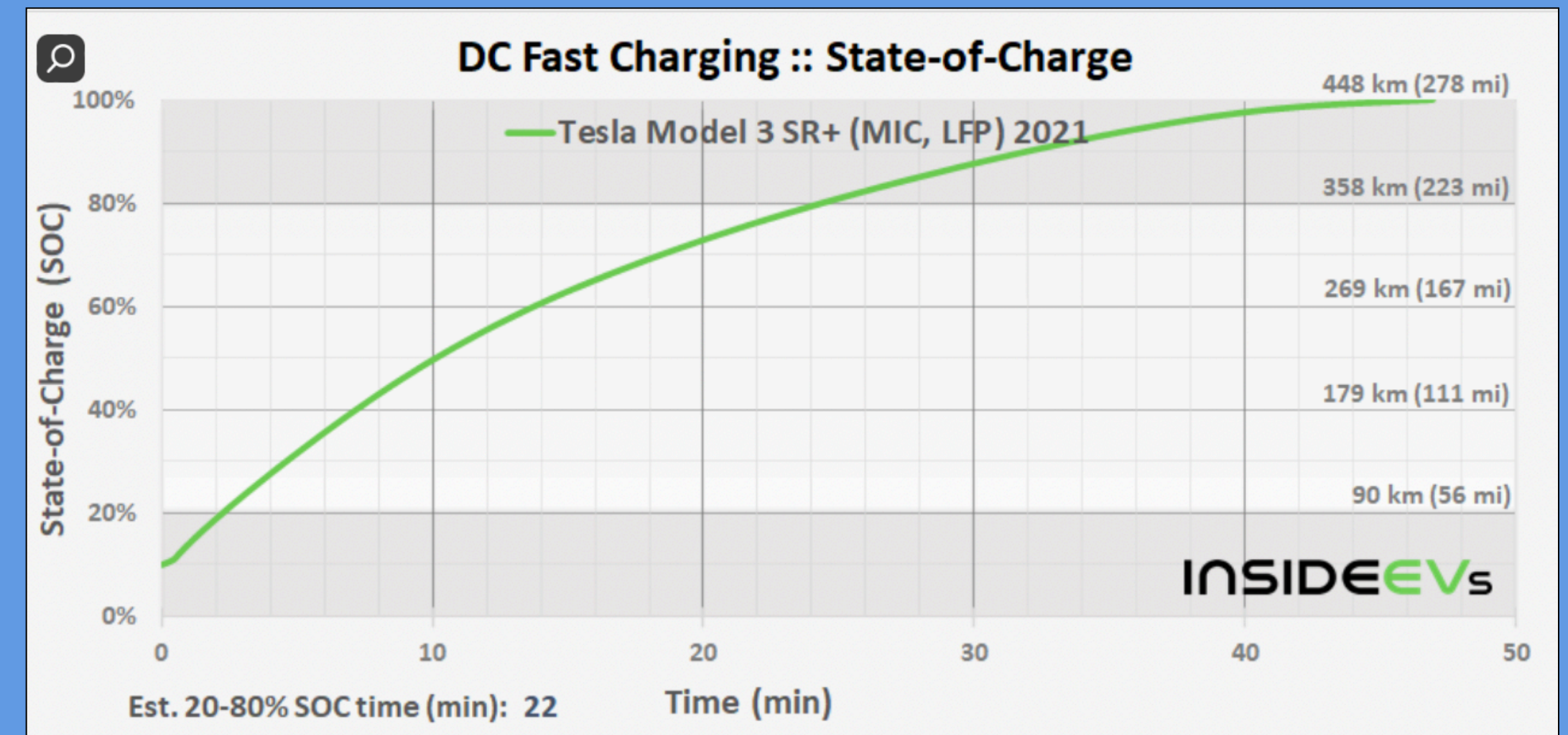
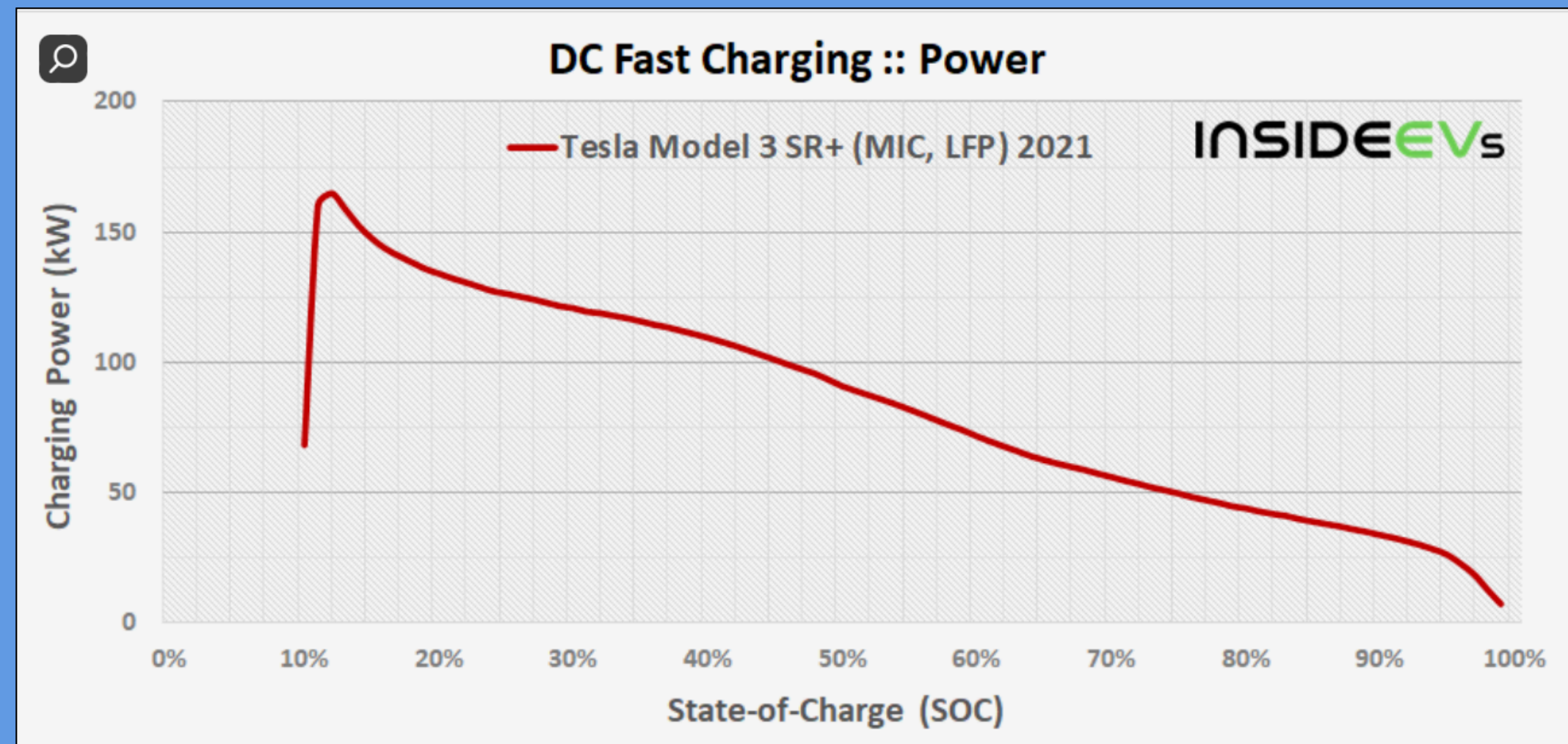
Tesla Mobile Connector cord no longer included.

Available for \$250



Session 5 : What's available

Tesla model 3



Notes for Tesla

DCFC rate peaks at 160 kw
&
Time to 30-80% = 20 minutes
Time to 80-100% = 45 minutes


Session 5 : What's available

Tesla model 3

Tesla

Model 3 RWD


From Electric for All




PRICE ESTIMATE* *SEATS: 5*

\$ 46,990

With my Nov 27 corrections. MSRP. \$46,895
This price becomes \$35395 after fed credit (1/2) & Illinois rebate

Car Type Electric Range Total Range 

 BEV 272 Miles 272 Miles HOV

Notes for Tesla model 3
Fed tax credit is actually

\$3750 for North American Battery
&
\$3750 for NA minerals


Session 5 : What's available

Ford Escape

Ford □

Escape Plug-In Hybrid

From Electric for All



PRICE ESTIMATE* *SEATS: 5*


\$ 38,400

With my Nov 27 corrections. MSRP. \$38,500

This price becomes \$31,000 after fed credit (1/2) (no Illinois rebate)

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


Basic Specs

 Crossover

5
Seats

34.4-60.8
cu. ft. Cargo Space


Fuel Type & Range

 Plug-in Hybrid

37 / 520
Electric / Total Miles

14.4
Battery Size (kWh)

Acceleration

 **7.7 seconds**
to 60 miles per hour

Safety


★★★★★
NHTSA Rating

N/A
IIHS Top Safety Pick

From Plugstar

Recharge Speed


Home and Away

9%  Range added in

Level 1

4 mi

60 minutes

24% 

Level 2

10 mi*

Not DC Fast Charge Equipped


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

Session 5 : What's available

Ford □

Escape Plug-In Hybrid

From Electric for All



SEATS: 5

PRICE ESTIMATE*


\$ 38,400

With my Nov 27 corrections. MSRP. \$38,500

This price becomes \$31,000 after fed credit (1/2) (no Illinois rebate)

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

<p>Elec + Gas</p> <div style="border: 1px solid gray; padding: 5px; background-color: #e0f0e0;"> <p>105 MPGe combined city/highway .0 gal/100mi of gas + 32 kWh/100mi</p> </div>	<p>Reg. Gas</p> <div style="border: 1px solid gray; padding: 5px;"> <p>40 MPG combined city/highway 2.5 gal/100mi</p> </div>
--	--



37 miles 520 miles
Elec + Gas Total Range ⓘ


All Elec: 0-38 mi

From EPA

Online ordering is not available. Contact dealer.

Ford Escape

110v Connector cord included.



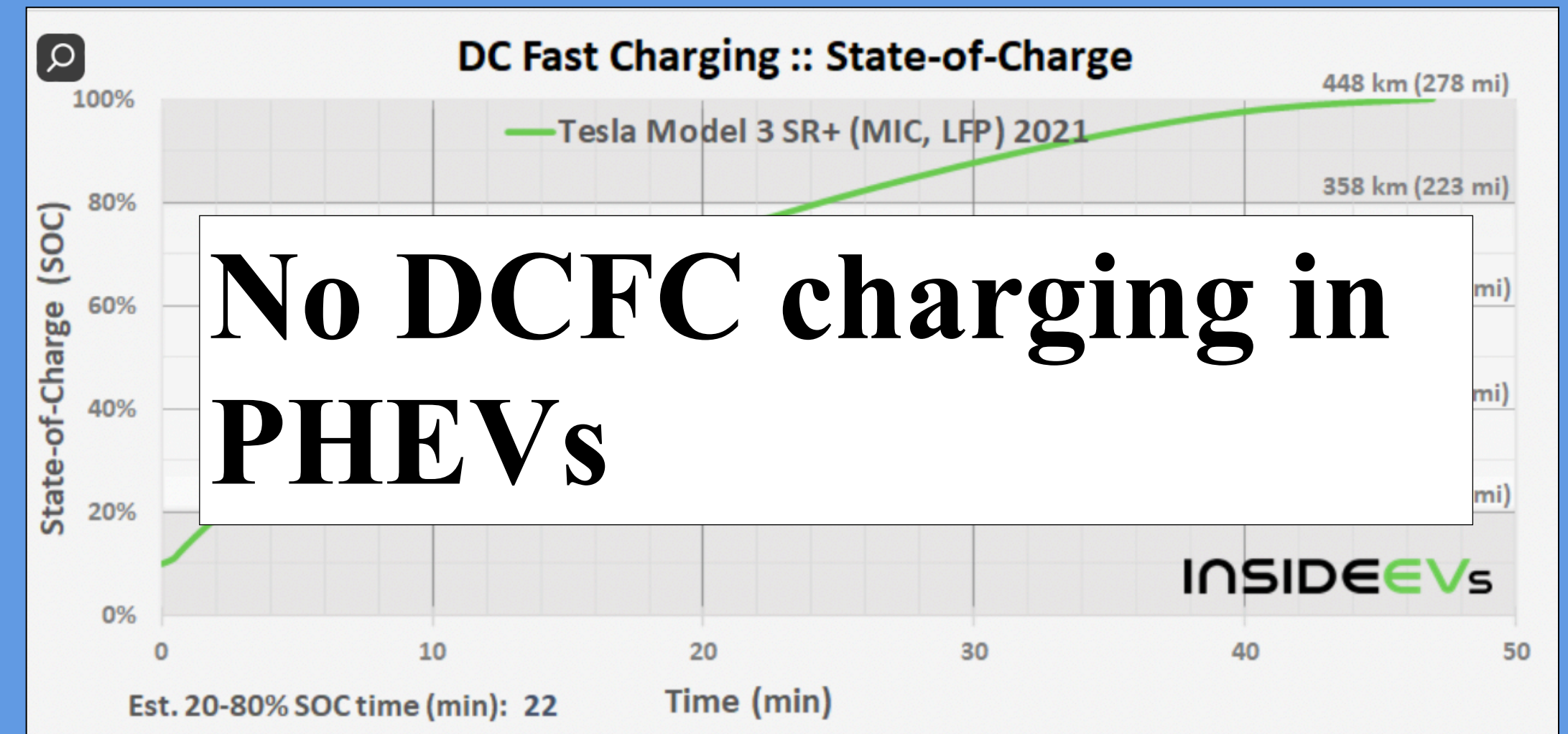
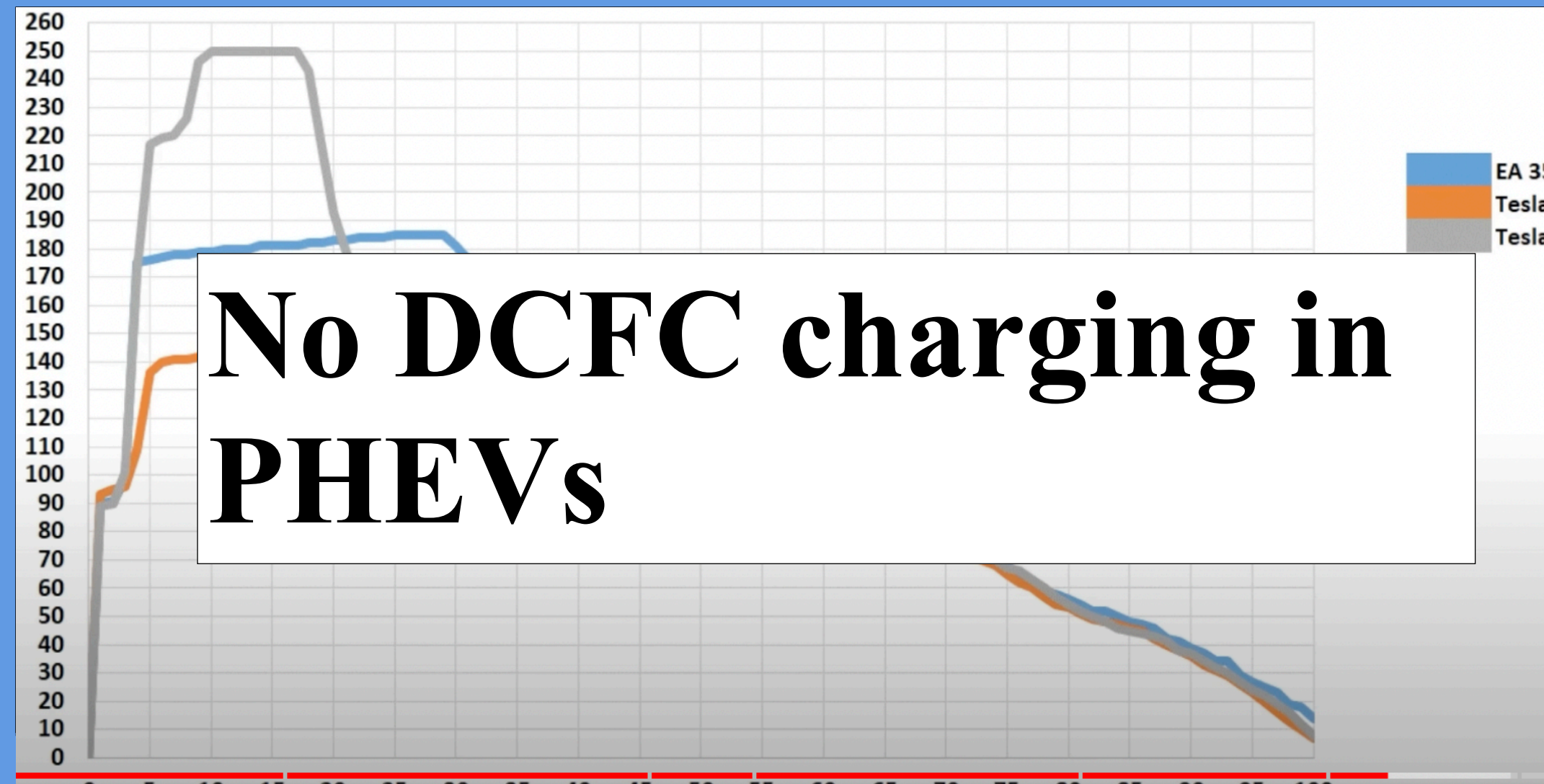
Ford Mobile Power Cord

\$500

ⓘ Details

Session 5 : What's available

Ford Escape



Notes for Ford Escape

No DCFC charging in PHEVs

Time to 100% = 25 minutes


Session 5 : What's available

Ford Escape

Ford

Escape Plug-In Hybrid



From Electric for All



PRICE ESTIMATE* SEATS: 5

\$ 38,400

**With my Nov 27 corrections. MSRP.
\$38,500**
**This price becomes \$31,000 after fed credit
(1/2) (no Illinois rebate)**

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

Notes for Ford Escape
Fed tax credit is actually


\$3750 for North American Battery
&
\$3750 for NA minerals

Session 5 : What's available

Toyota Prius

Toyota □
Prius Prime LE

From Electric for All



PRICE ESTIMATE* *SEATS: 5*

\$ 28,670


With my Nov 27 corrections. MSRP. \$28,770

This price becomes \$28,770.

No fed credit or Illinois rebate

Car Type	Electric Range	Total Range	◇
🔌 PHEV	25 Miles	640 Miles	HOV


Basic Specs


Hatchback

5
Seats

19.8-36.6
cu. ft. Cargo Space


Fuel Type & Range


Plug-in Hybrid


25 / 640
Electric / Total Miles

8.8
Battery Size (kWh)

Acceleration


10.8 seconds
to 60 miles per hour


Safety


NHTSA Rating

N/A
IIHS Top Safety Pick


From Plugstar **Recharge Speed**

Home and Away

15%  Range added in

Level 1 **5 mi**

60
minutes

37% 

Level 2 **13 mi***

Not DC Fast Charge Equipped

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


Session 5 : What's available

Toyota Prius

Toyota

Prius Prime LE

From Electric for All



PRICE ESTIMATE* SEATS: 5

\$ 28,670

With my Nov 27 corrections. MSRP. \$28,770

This price becomes \$28,770.

No fed credit or Illinois rebate

Car Type	Electric Range	Total Range	
PHEV	25 Miles	640 Miles	HOV

Elec + Gas	Reg. Gas
133 MPGe combined city/highway .0 gal/100mi of gas + 25 kWh/100mi	54 MPG combined city/highway 1.9 gal/100mi
25 miles Elec + Gas 640 miles Total Range	
All Elec: 0-25 mi	

From EPA

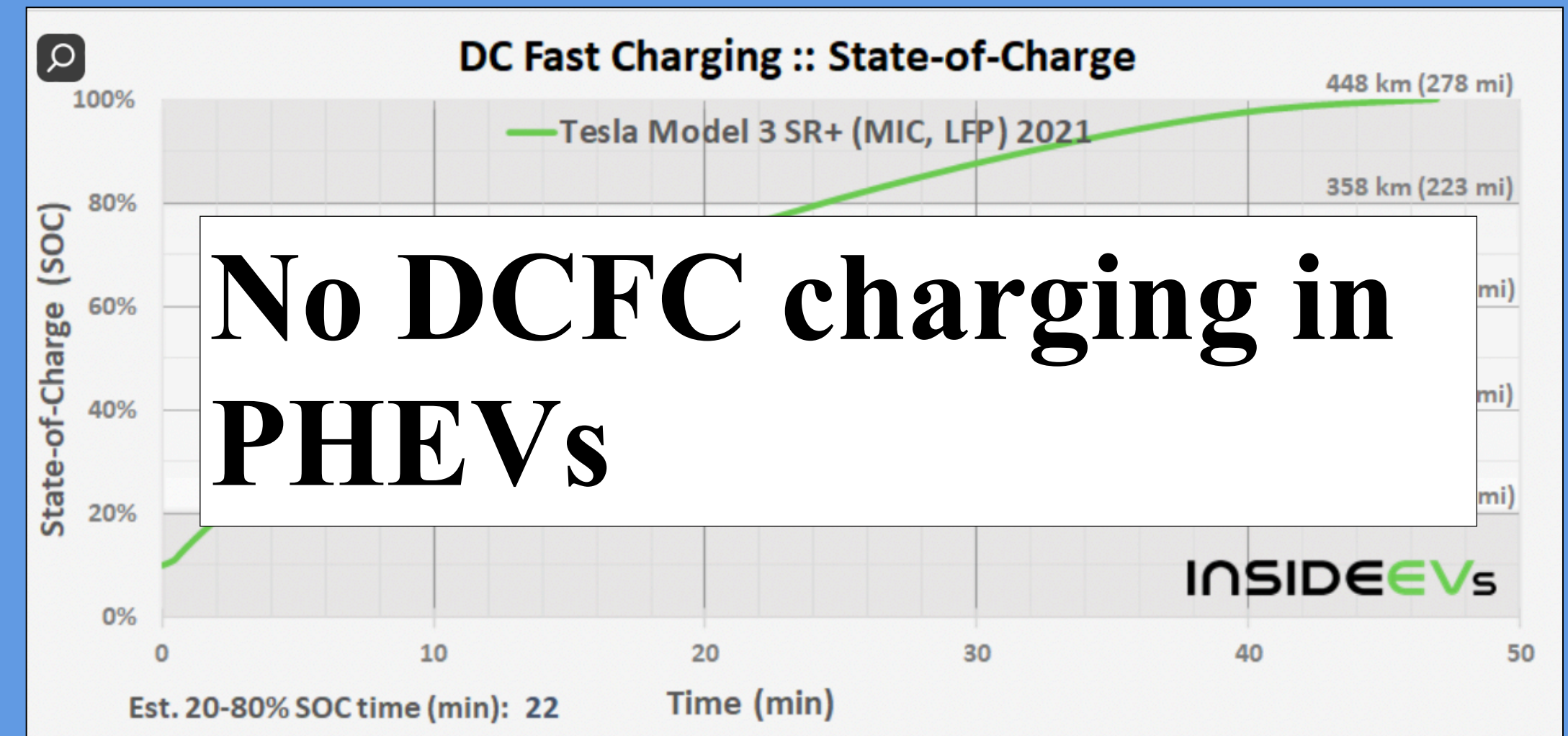
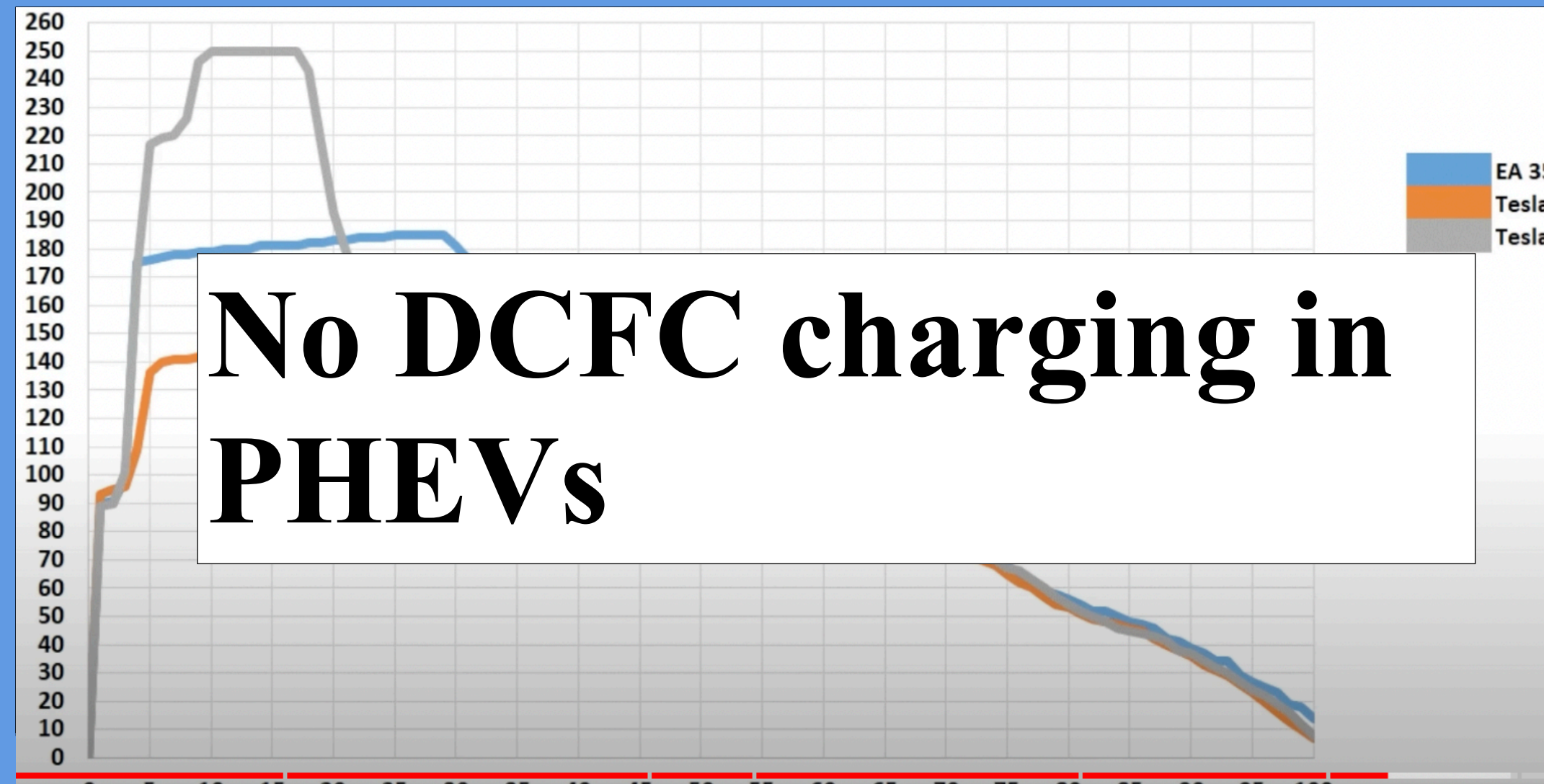
Online ordering is not available. Contact dealer.

Connector cord included.



Session 5 : What's available

Toyota Prius



Notes for Toyota Prius

No DCFC charging in PHEVs

Time to 100% = 25 minutes


Session 5 : What's available

Toyota Prius

Toyota

Prius Prime LE



From Electric for All



PRICE ESTIMATE* SEATS: 5

\$ 28,670

With my Nov 27 corrections. MSRP.
\$28,770
This price becomes \$28,770.
No fed credit or Illinois rebate

Car Type	Electric Range	Total Range	
 PHEV	25 Miles	640 Miles	HOV

Notes for Toyota Prius


Lots of Toyota models are assembled in North America . . . but the Prius isn't one of them. So no federal tax credit.

Session 5 : What's available

Hyundai Ioniq 5

Hyundai ☐
IONIQ 5 SE RWD

From Electric for All



PRICE ESTIMATE* SEATS: 5

\$ 41,400

With my Nov 27 corrections. MSRP. \$41,450

This price becomes \$37,450 after (no fed credit) & Illinois rebate

Car Type	Electric Range	Total Range
BEV	303 Miles	303 Miles

Basic Specs

Crossover

5 Seats

27.2-60.2 cu. ft. Cargo Space

Fuel Type & Range

All Electric

303 Electric Miles

77.4 Battery Size (kWh)

Acceleration

7.1 seconds to 60 miles per hour

Safety

N/A NHTSA Rating

N/A IIHS Top Safety Pick

From Plugstar

Recharge Speed

Home and Away

1%

Level 1

4 mi

Range added in

60 minutes

14%

Level 2

36 mi*

At Fast Charge Stations

16%

Typical

41 mi

Range added in

15 minutes

72%

Max

187 mi*


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

Session 5 : What's available

Hyundai

IONIQ 5 SE RWD

From Electric for All





PRICE ESTIMATE* SEATS: 5

\$ 41,400

With my Nov 27 corrections. MSRP. \$41,450
This price becomes \$37,450 after (no fed credit) & Illinois rebate

Car type	Electric range	Total range
BEV	303 Miles	303 Miles

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

Electricity  

303 miles
Total Range

From EPA

Available through dealers.

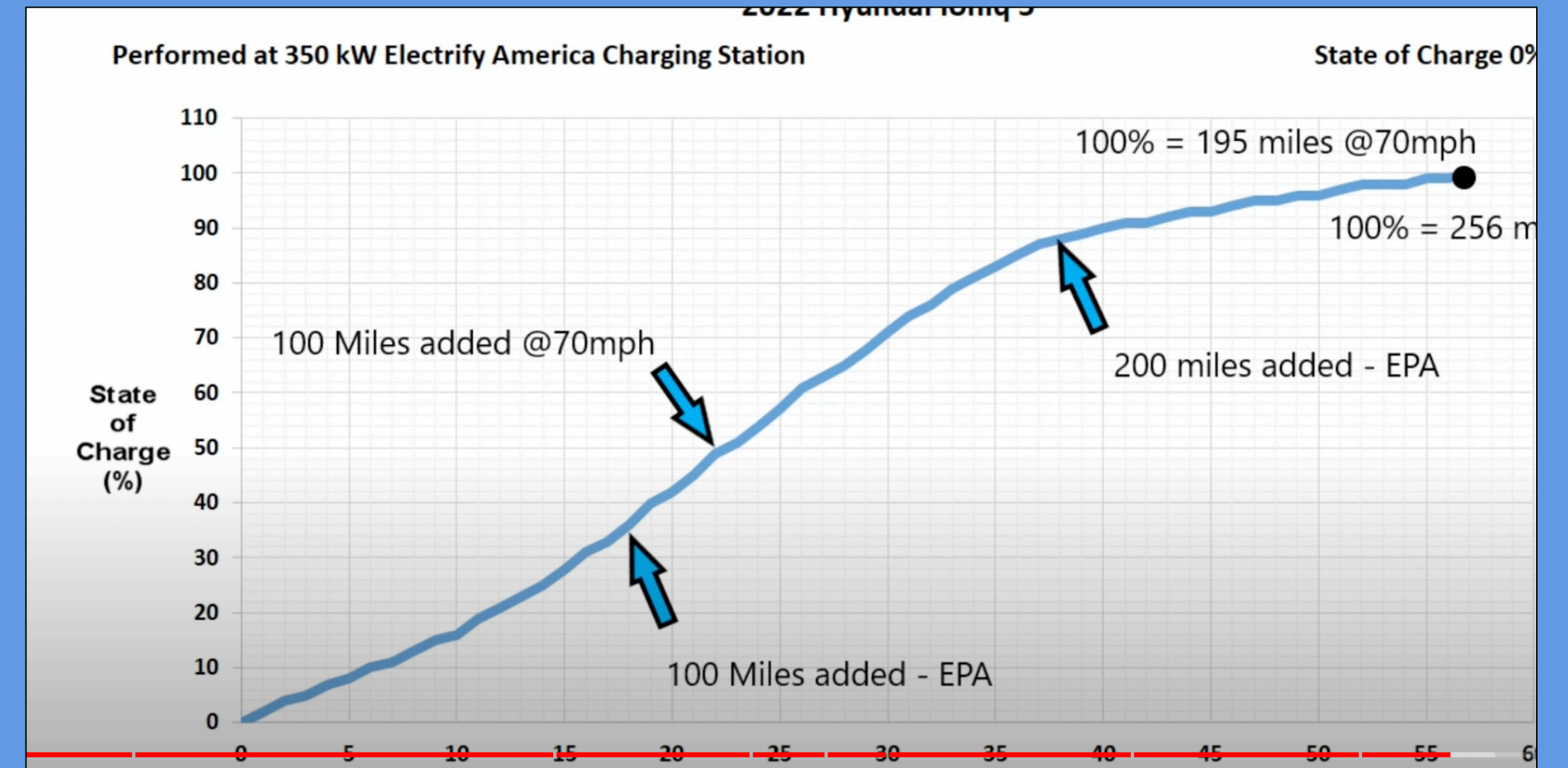
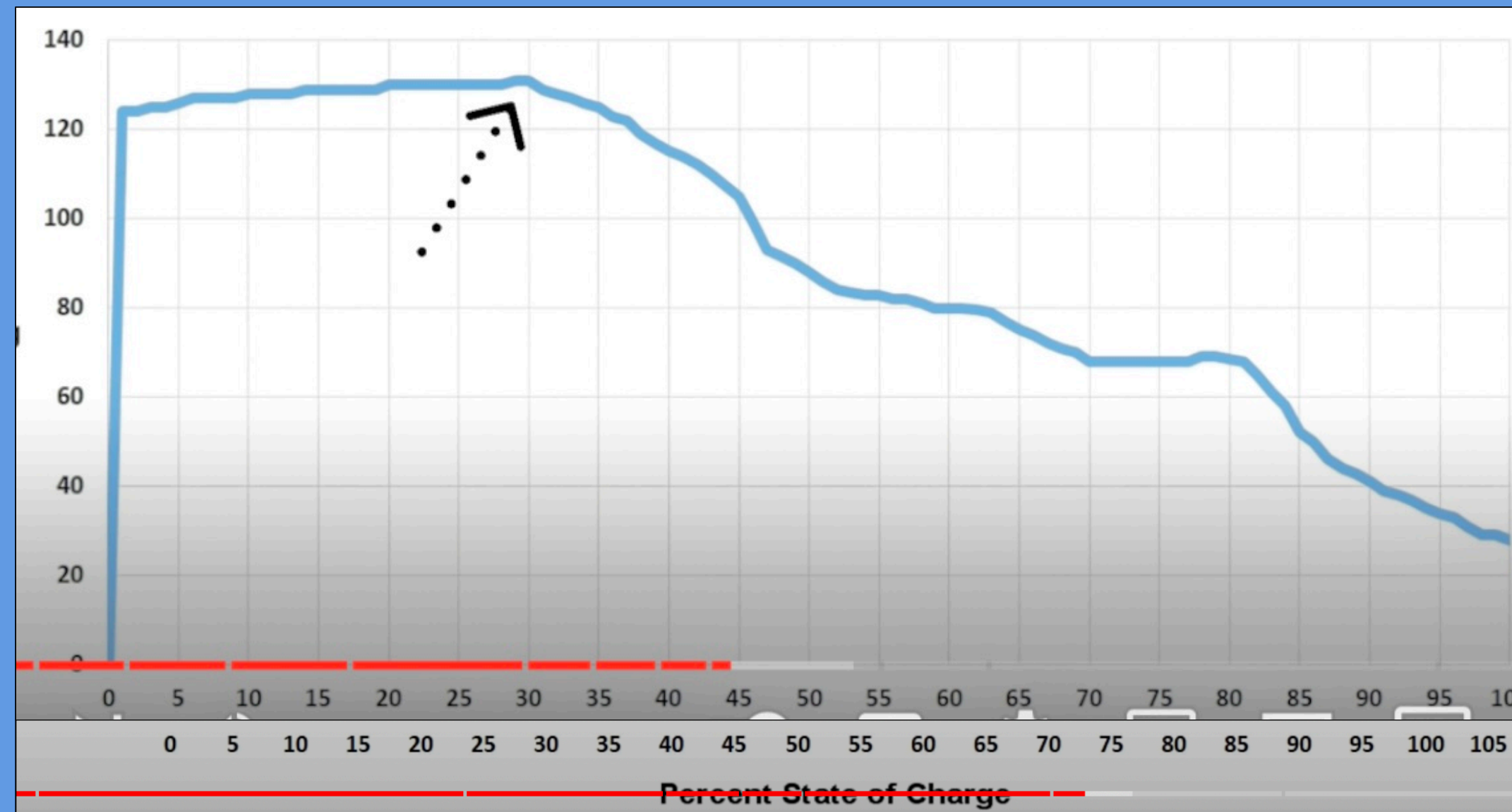
Hyundai Ioniq 5

Connector cord included.



Session 5 : What's available

Hyundai Ioniq 5



Notes for Ioniq 5

DCFC rate peaks at 125 kw
&
Time to 10-80% = 15 minutes
Time to 100% = 57 minutes


Session 5 : What's available

Hyundai Ioniq 5

Hyundai

IONIQ 5 SE RWD


From Electric for All



PRICE ESTIMATE* *SEATS: 5*

\$ 41,400

With my Nov 27 corrections. MSRP. \$41,450
This price becomes \$37,450 after (no fed credit) Illinois rebate

Car type	Electric range	Total range
 BEV	303 Miles	303 Miles

Notes for Ioniq 5

No longer qualifies for Fed tax credit.

Not assembled in North America.

Session 5 : What's available

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

Car makers starting the process of a US Factory

Audi

Kia

Polestar (south Carolina 2024)

Vinfast

Honda batteries in Ohio

Session 5 : What's available

Toyota BZ4X. \$42,000 252 miles



Toyota not tax credit eligible - not assembled in the US

Toyota zero EV sales in September

Toyota made a big announcement that nobody wants EVs. This is their 1st EV and seems to have rushed it out. There is a metaphor about having the wheels fall off, but they had to recall all of initial shipment because the wheels were actually falling off. Toyota also made another statement in early October that California CAFE goals are likely unreachable.

Session 5 : What's available



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.

The end for now.

Questions

Lexus Confirms Manual Transmission For EVs, LFA Successor May Get It

It's got a gearshift, a tachometer and a "clutch" pedal, and you can even stall the vehicle if you don't know how to drive stick shift.

[Dan Mihalascu](#)



Manual vs automatic



A stick shift for an EV feels so real - you can stall the vehicle

An EV without a manual gearshift is just a different driving game.

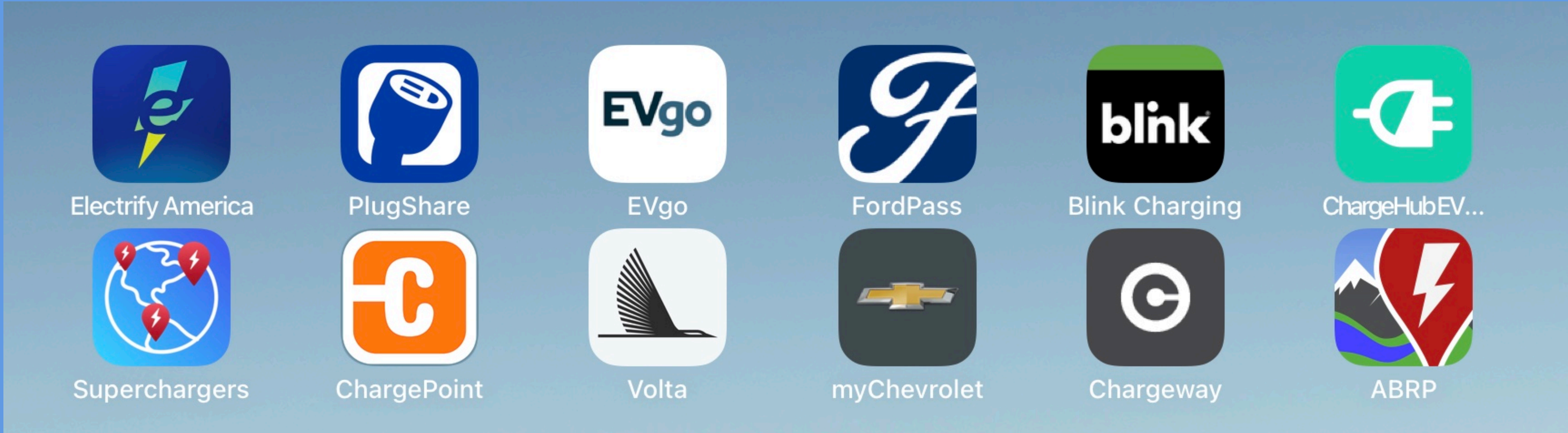


Electric tows BETTER - its not a towing disaster, it exaggerates the shortcomings with distance part of the charging infrastructure.

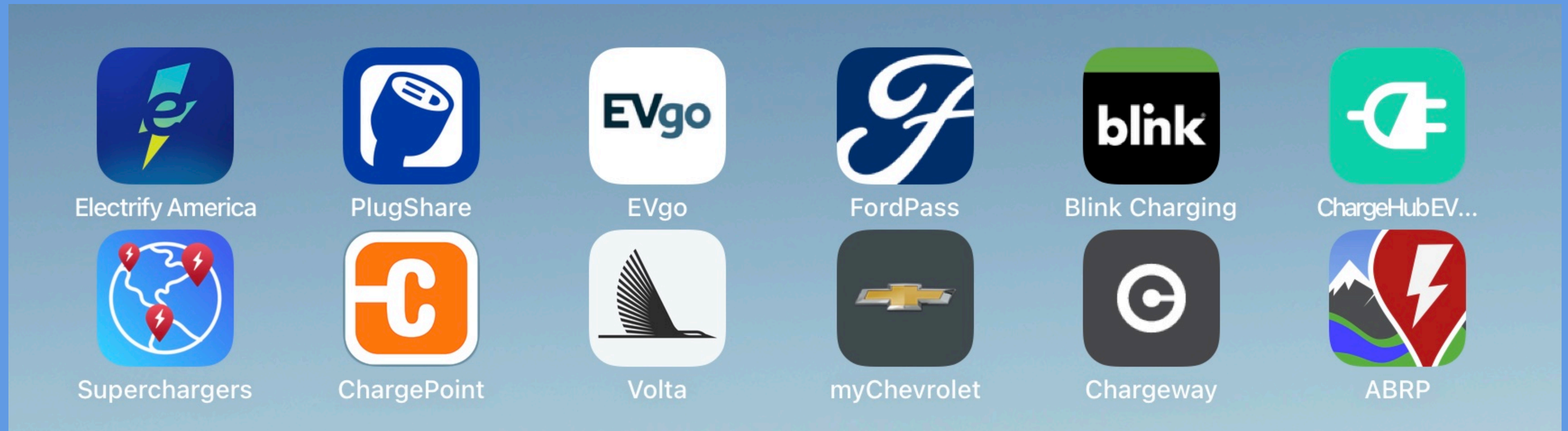
The end for now.

The end for now.

Session ??: Charger Apps



Session ??: Charger Apps



There are a lot of apps for charging networks - some actually are charging networks - one in particular - is pretty good at finding chargers regardless of network. Some even claim to be a networks but are really just a list of chargers.

Session ??: Charger Apps



Starting with the ones that I find
most useful.

Electrify America

Superchargers

PlugShare

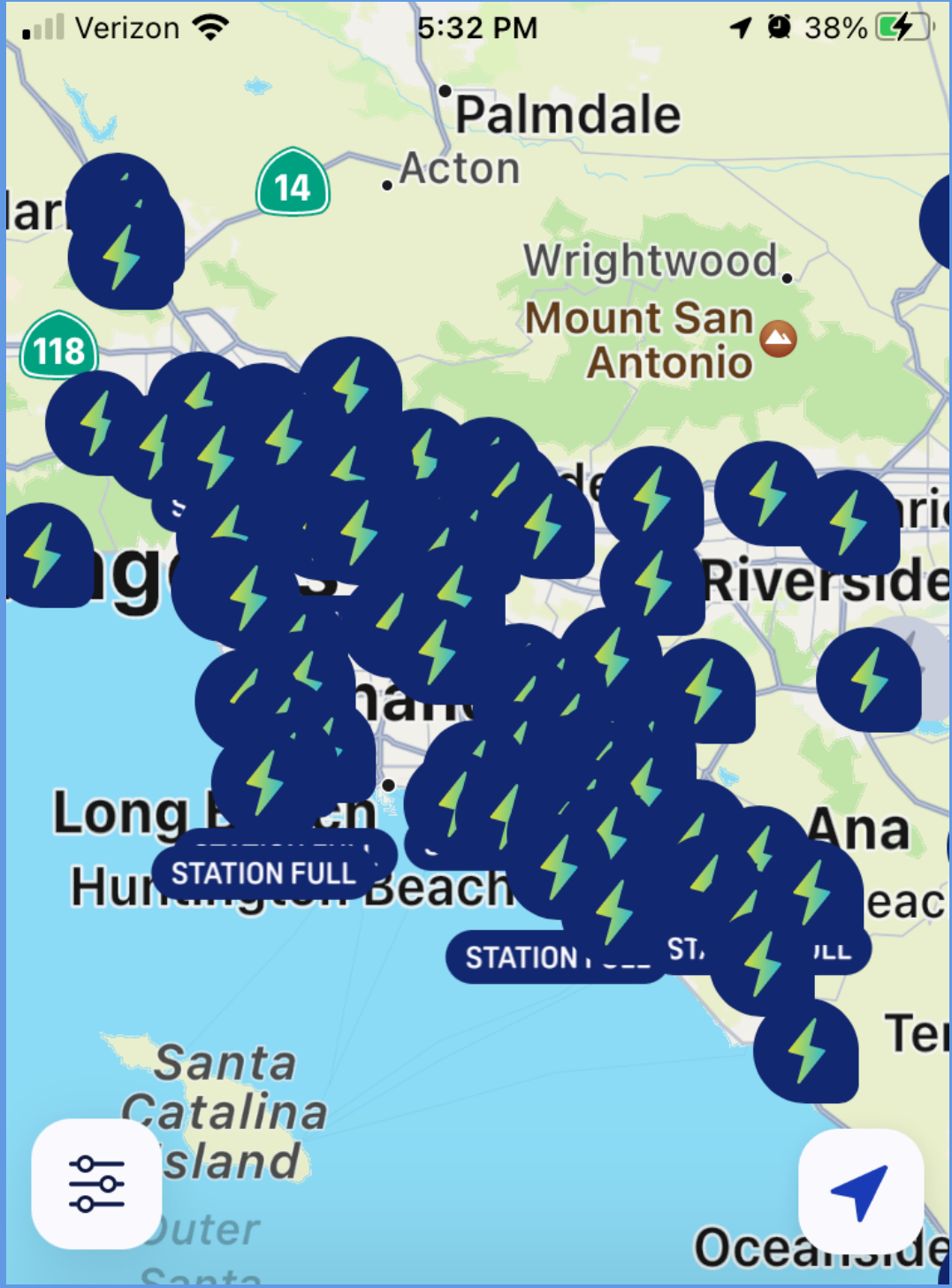
ChargePoint

Session ??: Charger Apps

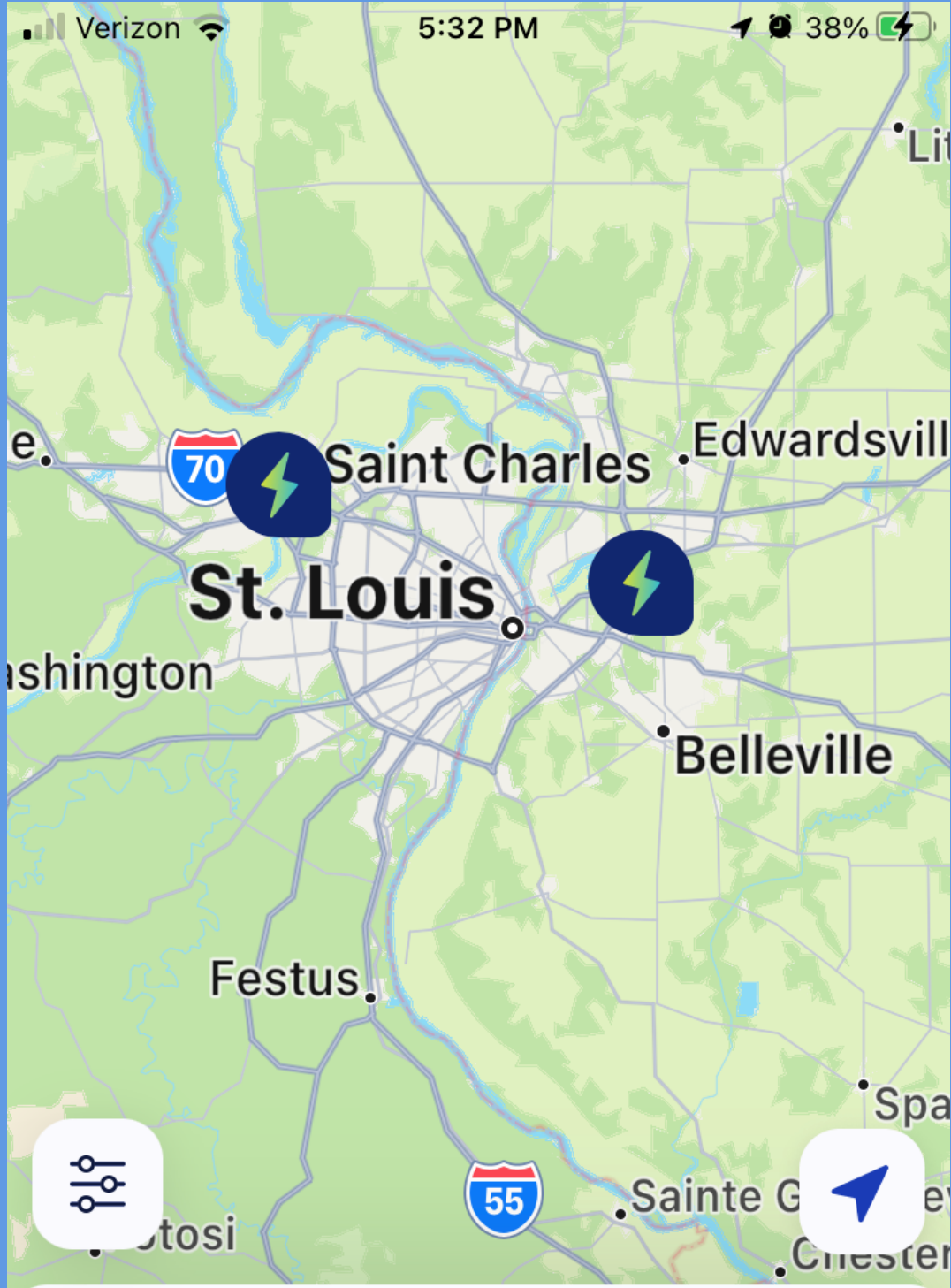


The Electrify America charging network. Showing every location - looks pretty.

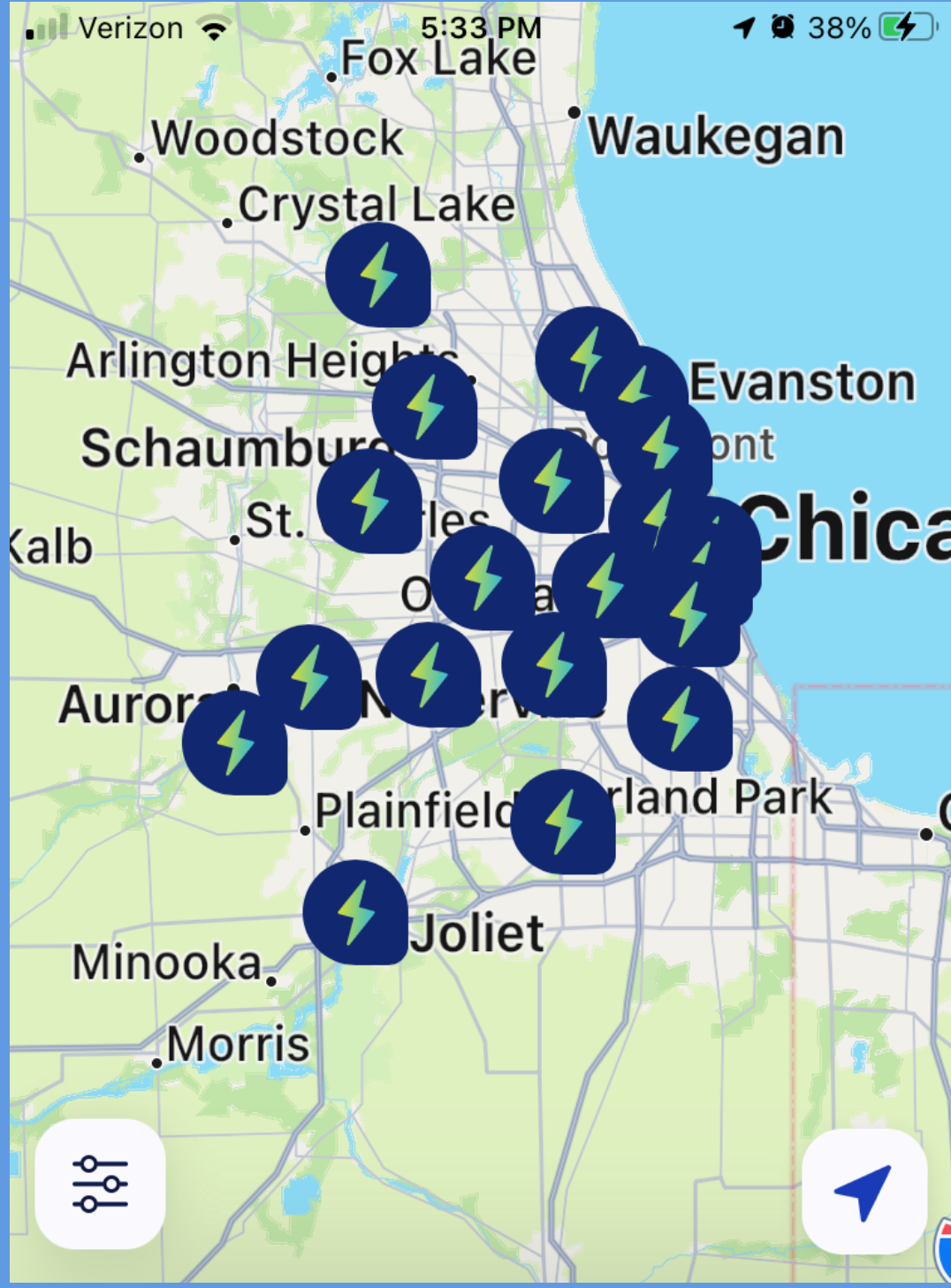
Session ??: Charger Apps



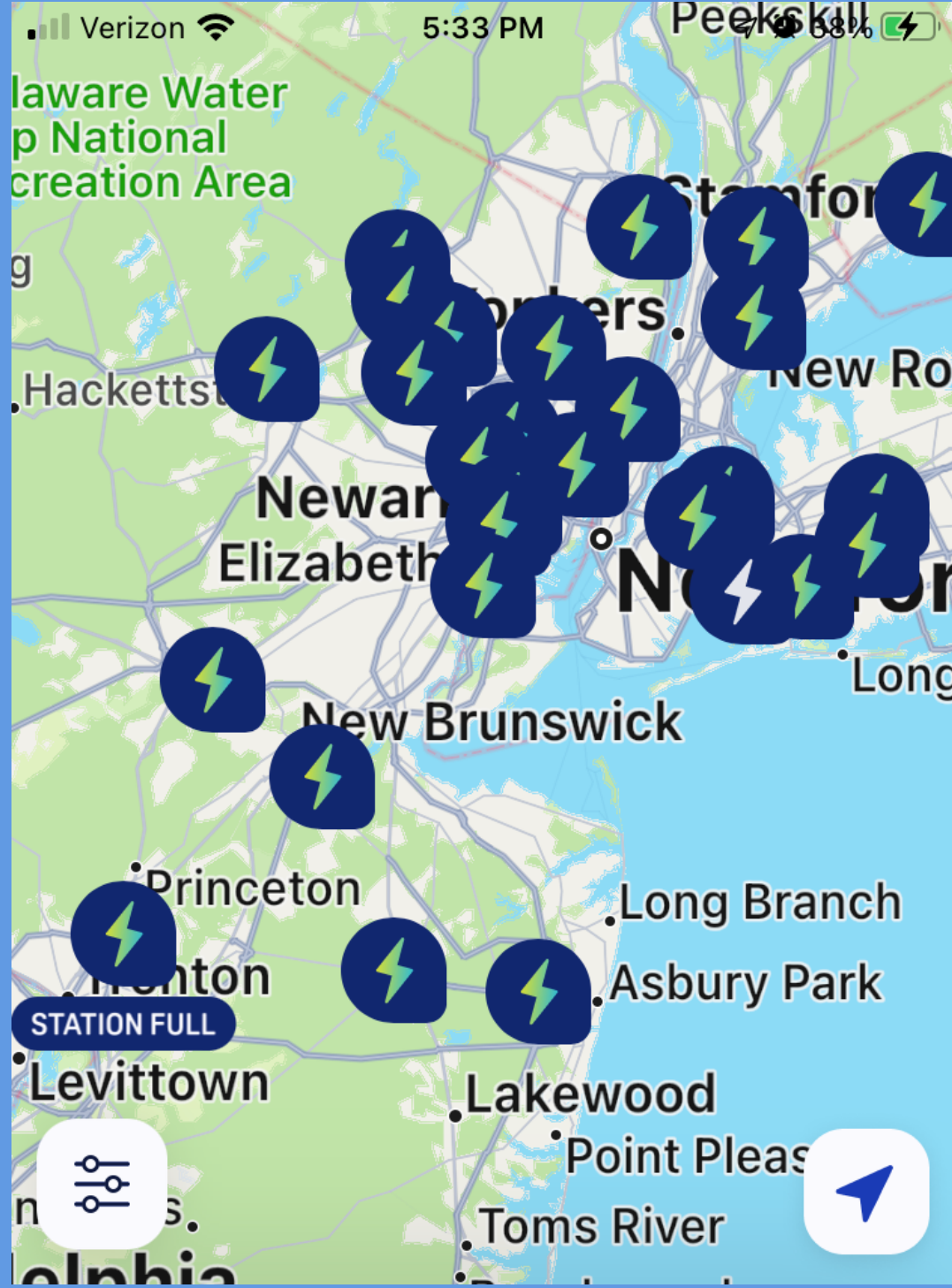
Los Angeles



St Louis



Chicago

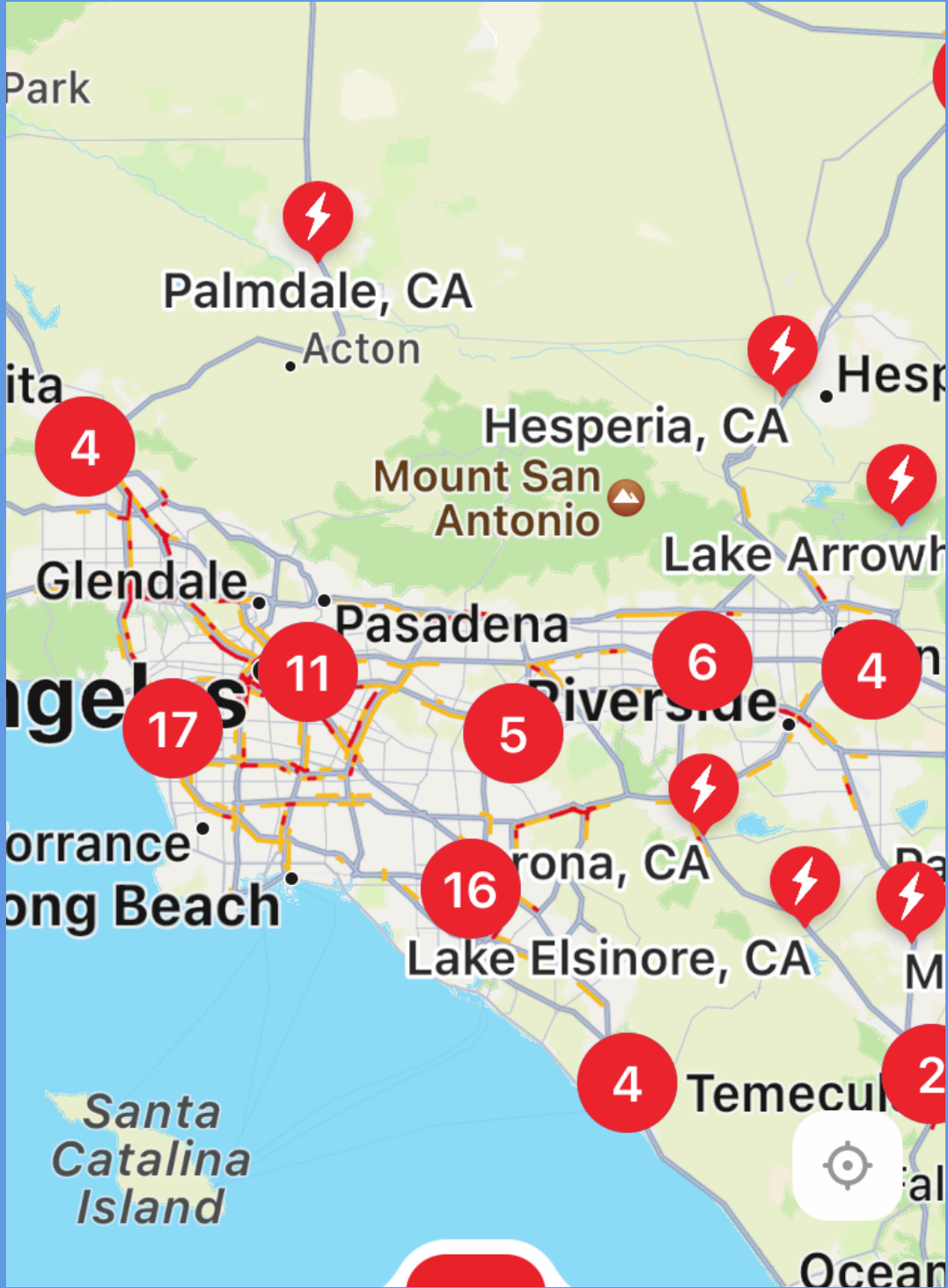


New York

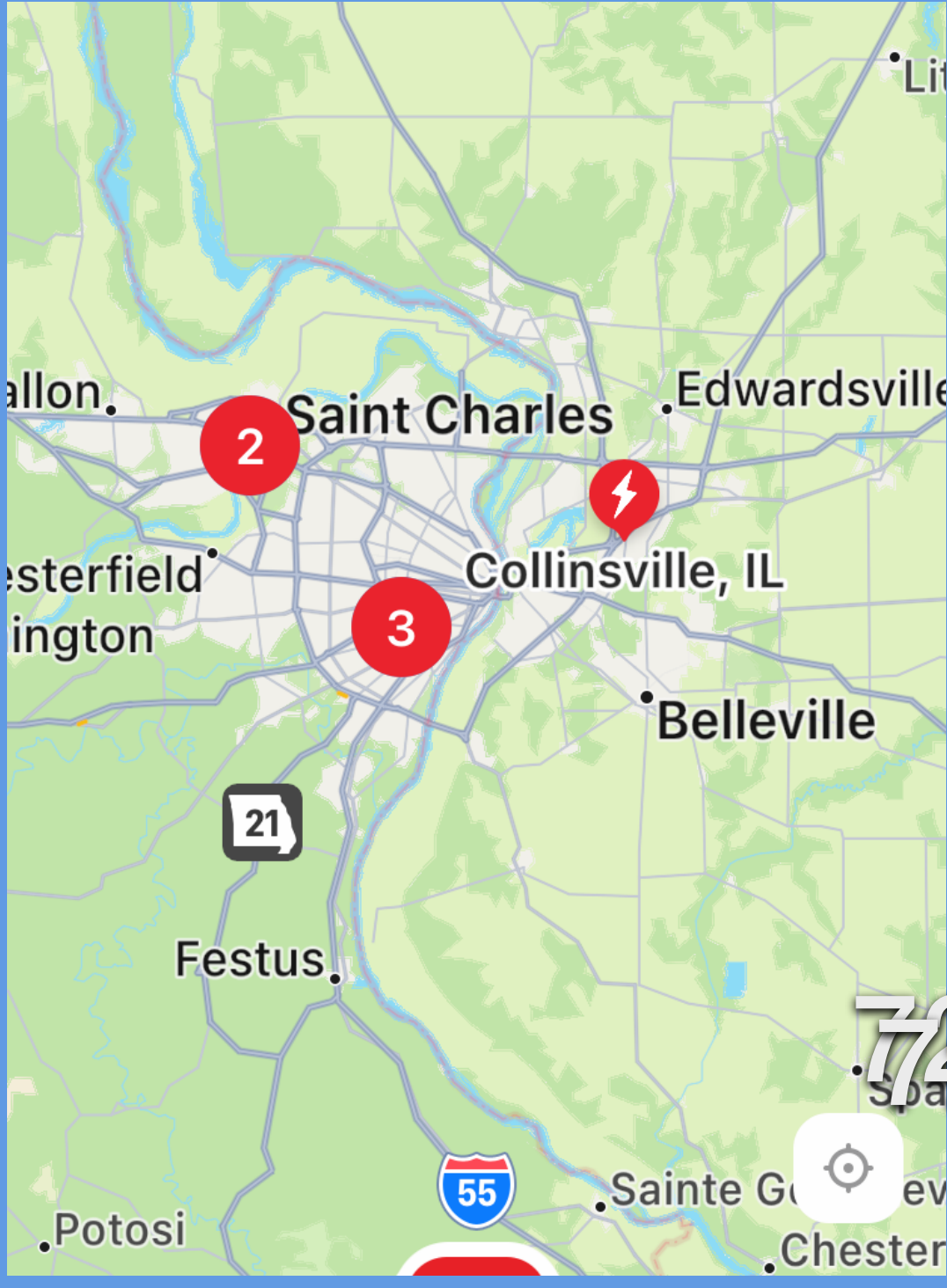
Electrify America
Individual locations

Each map section is the same scale and shows how well each city is served by public charging. Note: it shows which locations are full.

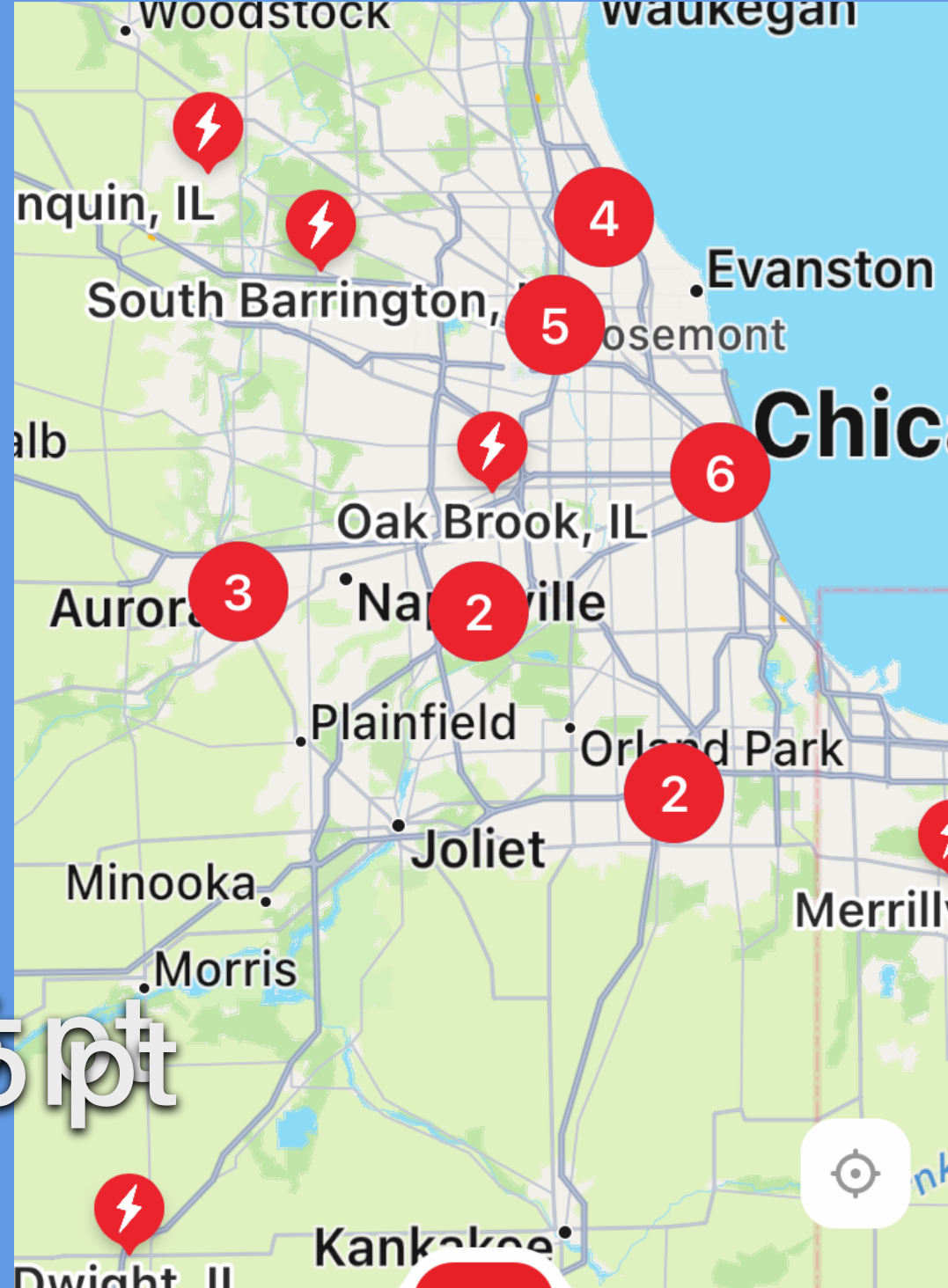
Session ??: Charger Apps



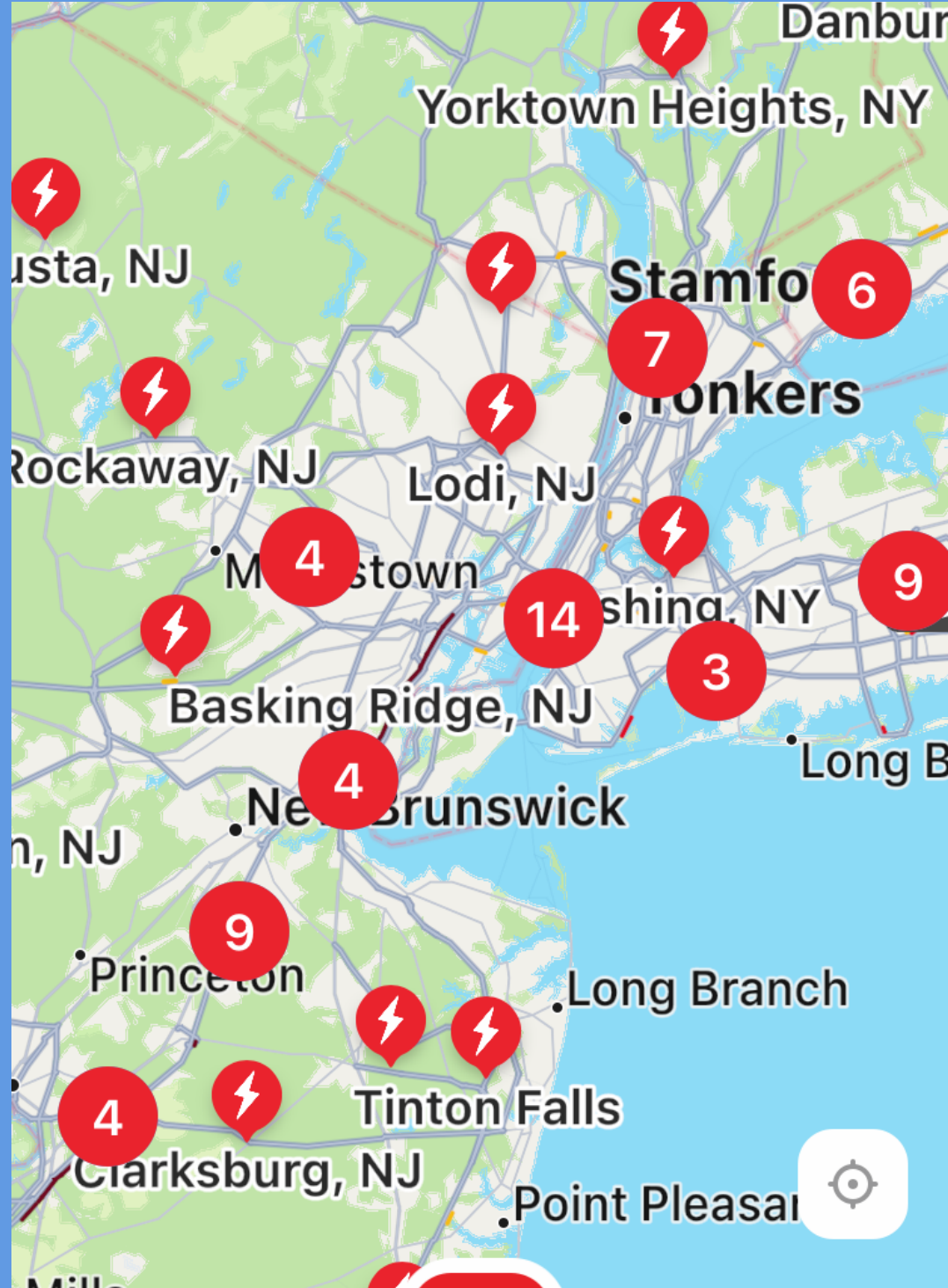
Los Angeles



St Louis



Chicago

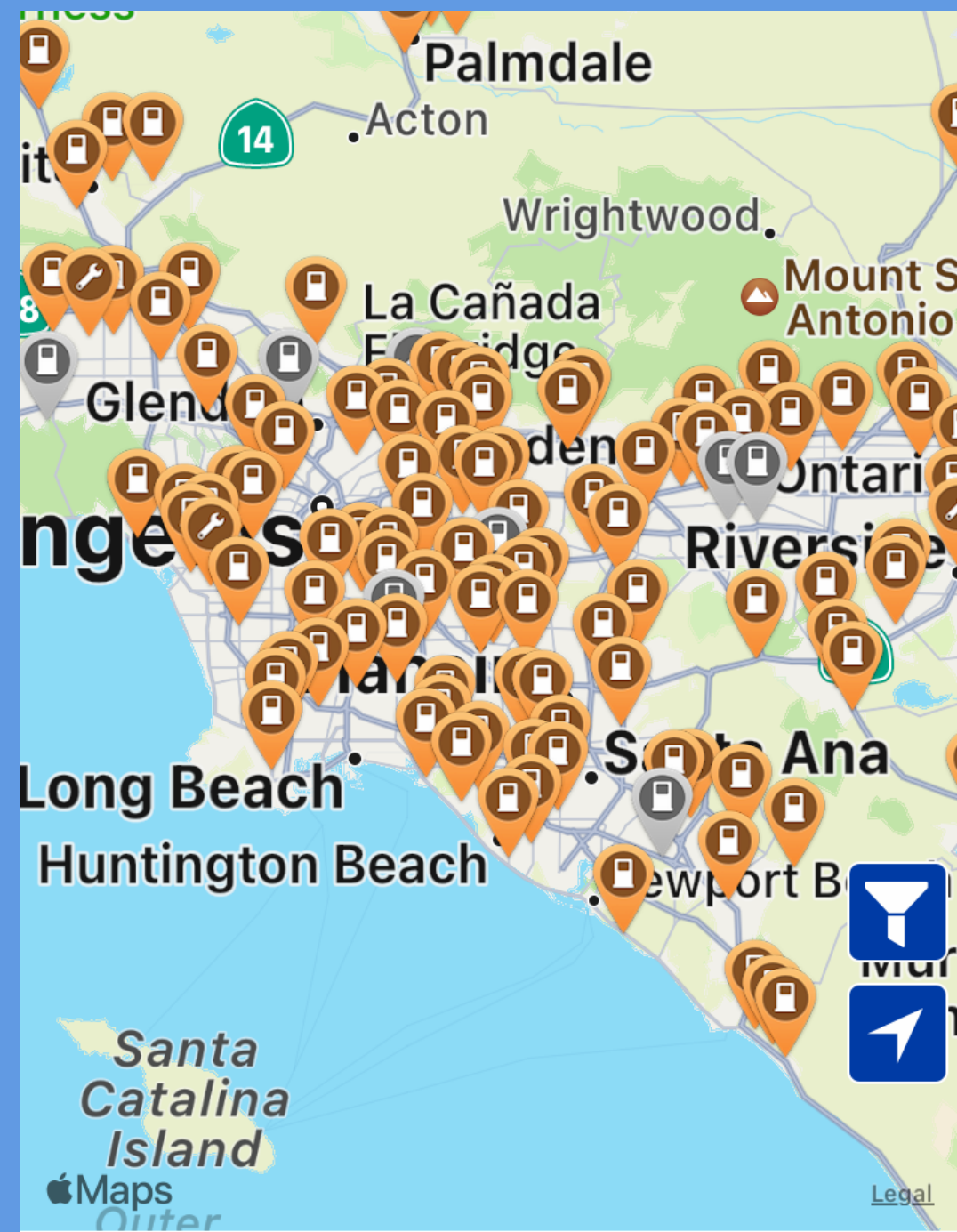


New York

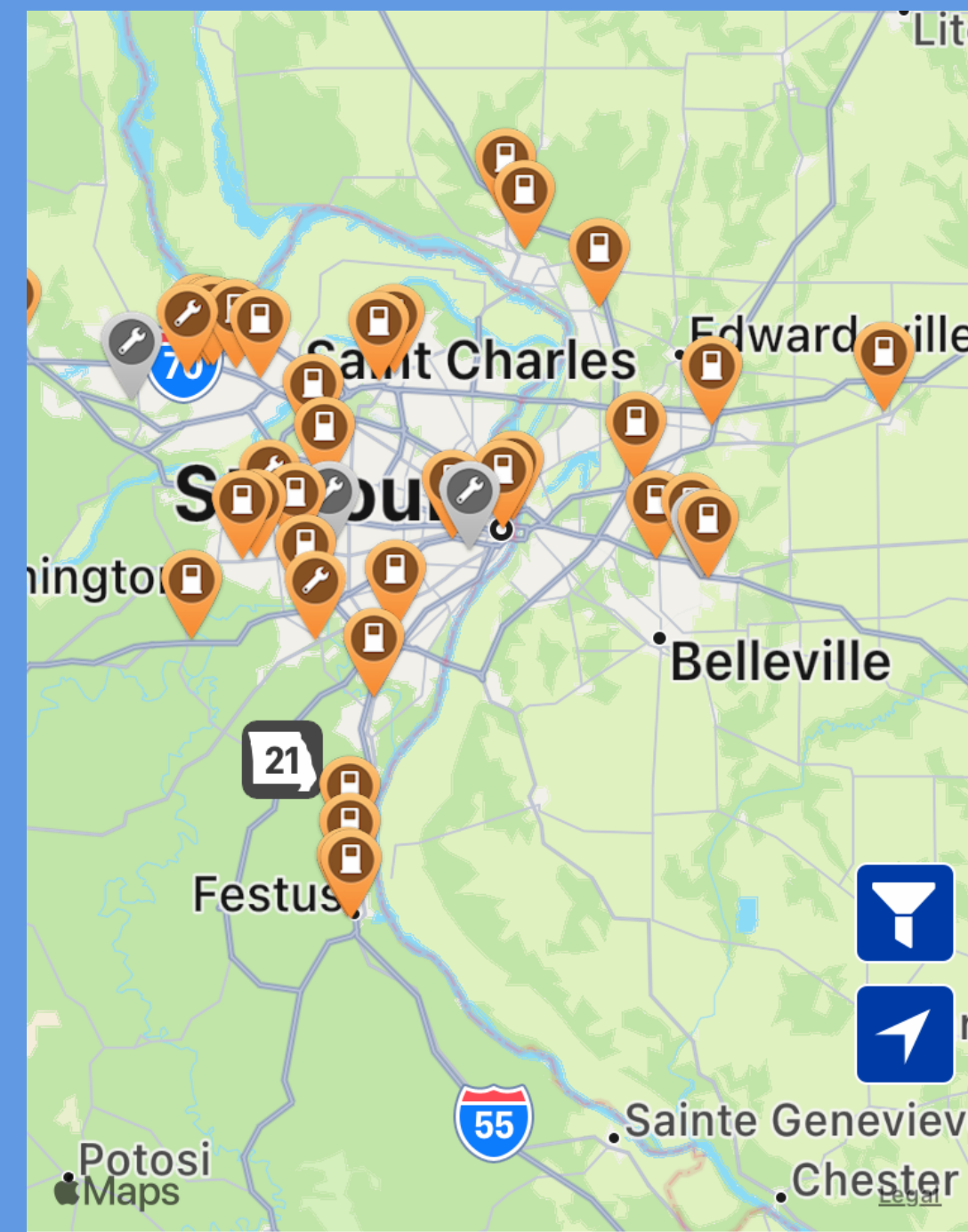
Tesla Superchargers
Groups of locations

Each map section is the same scale and shows how well each city is served by public charging

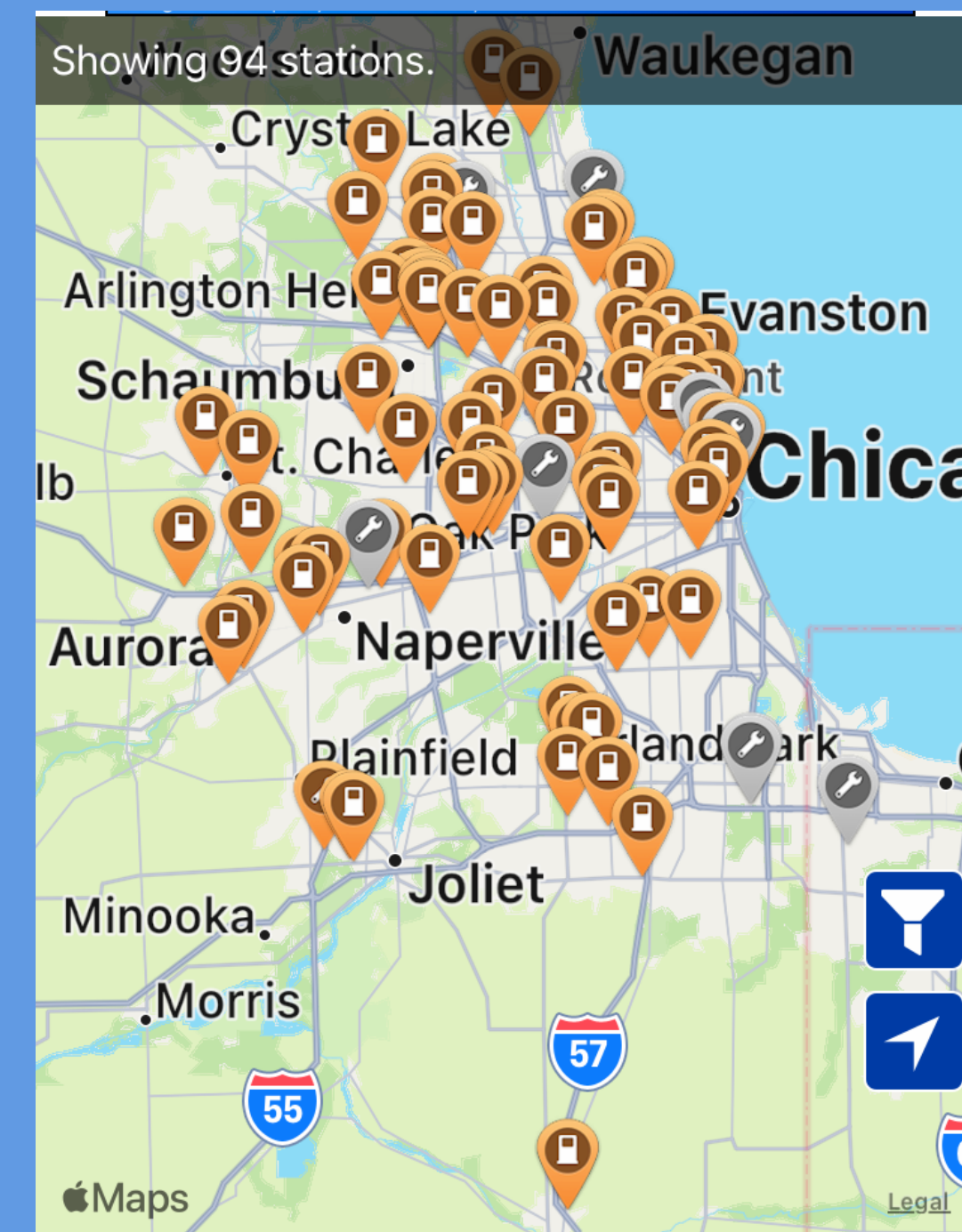
Session ??: Charger Apps



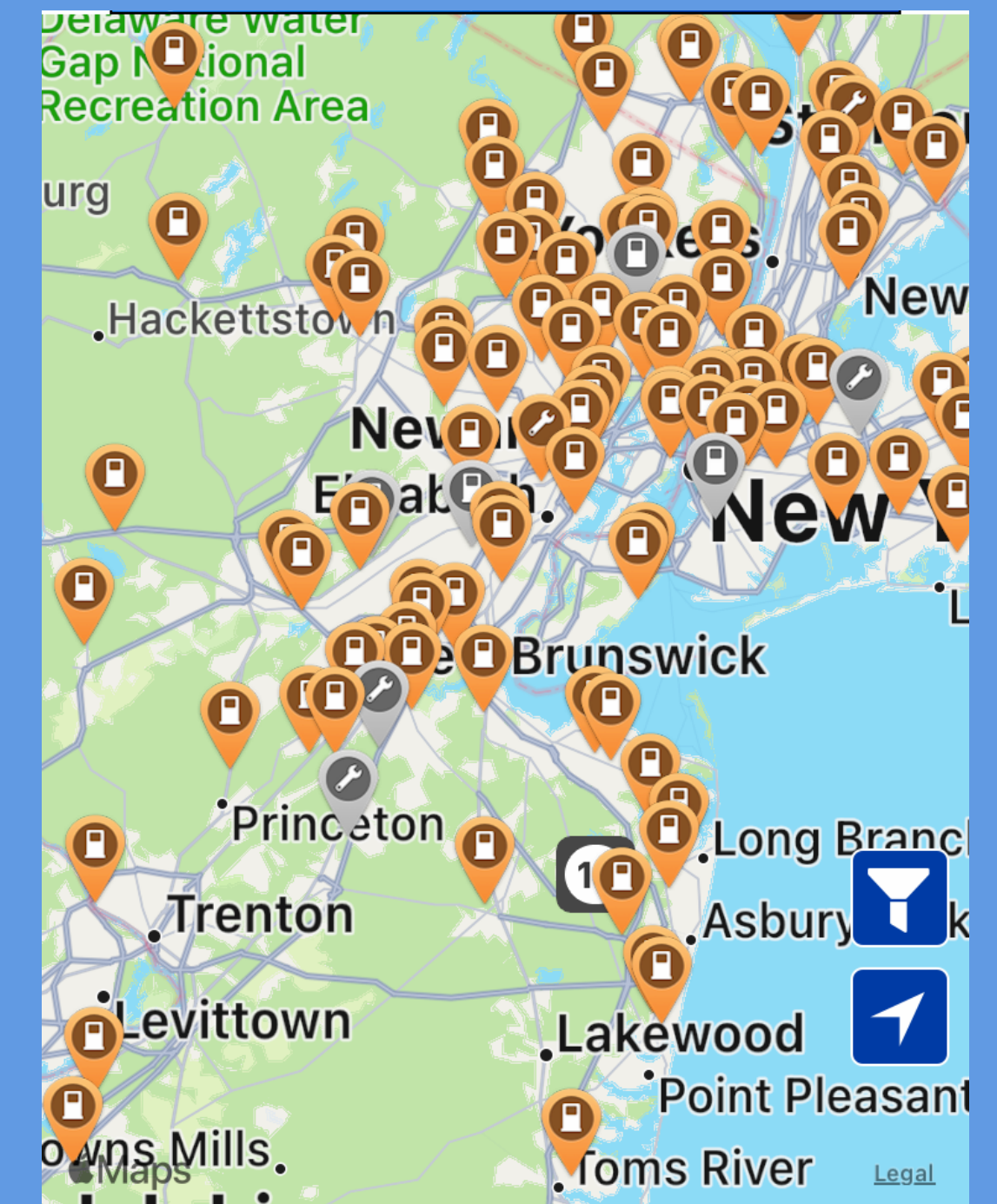
Los Angeles



St Louis



Chicago

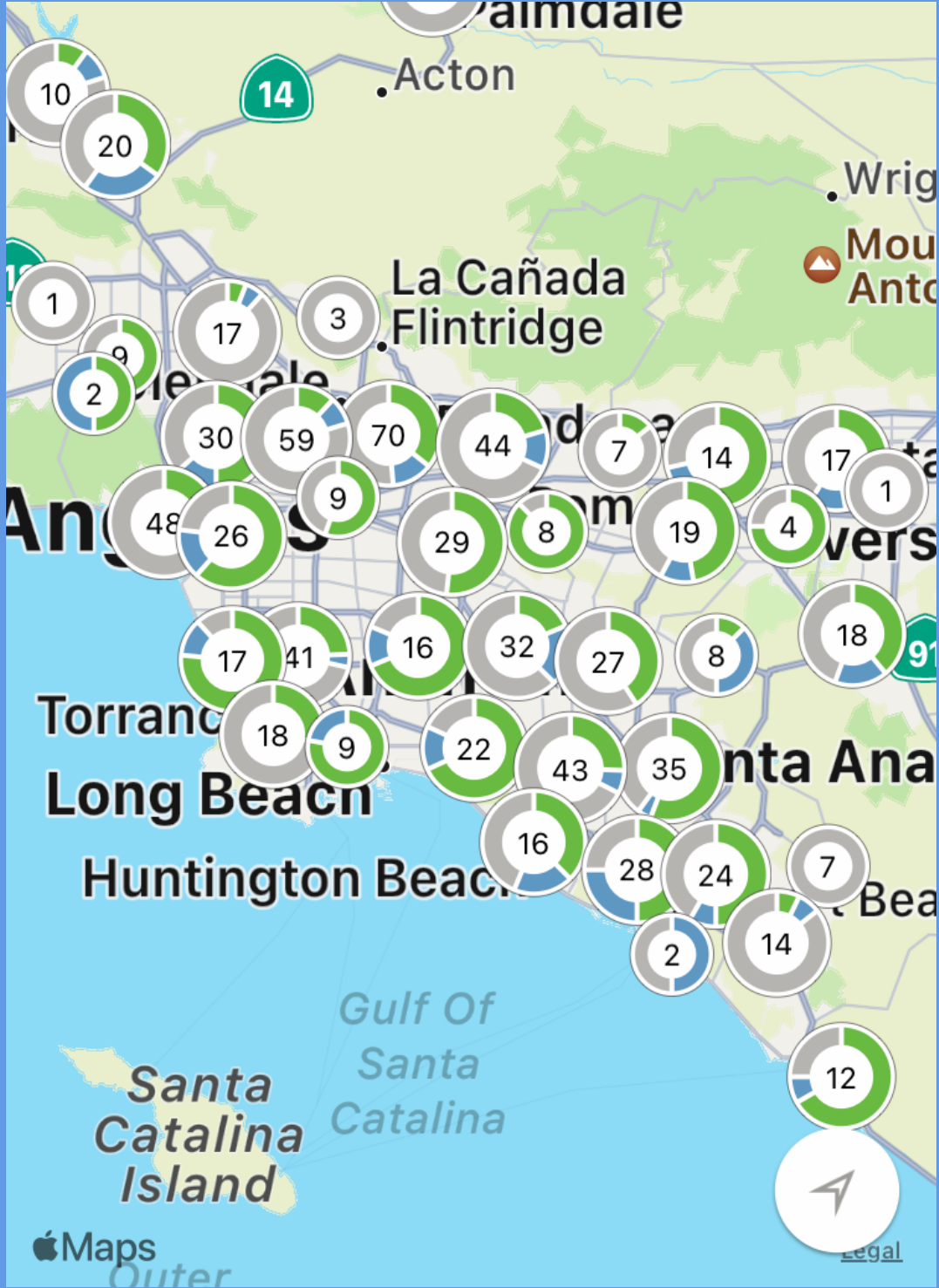


New York

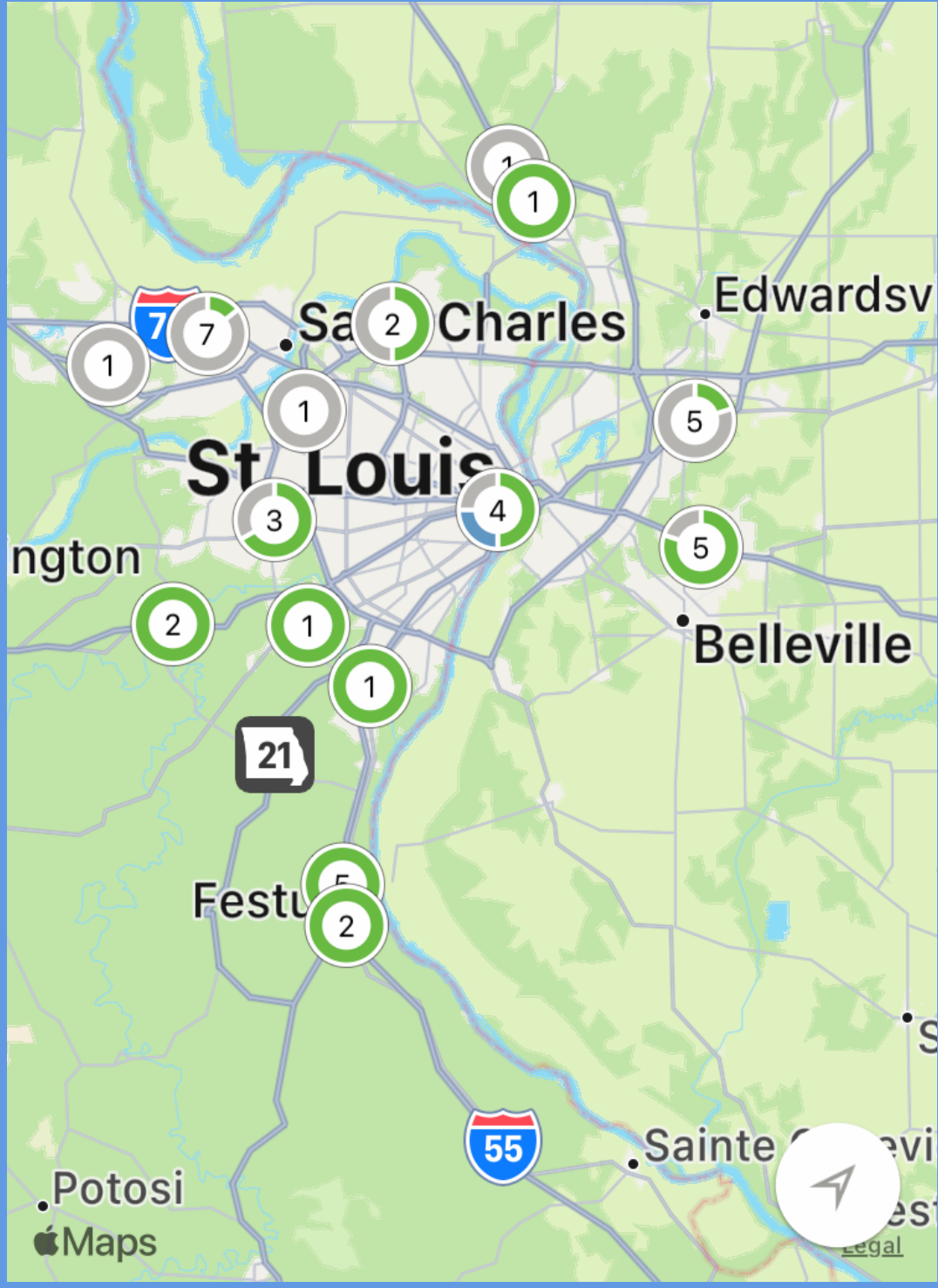
PlugShare
Individual locations

Each map section is the same scale and shows how well each city is served by public charging

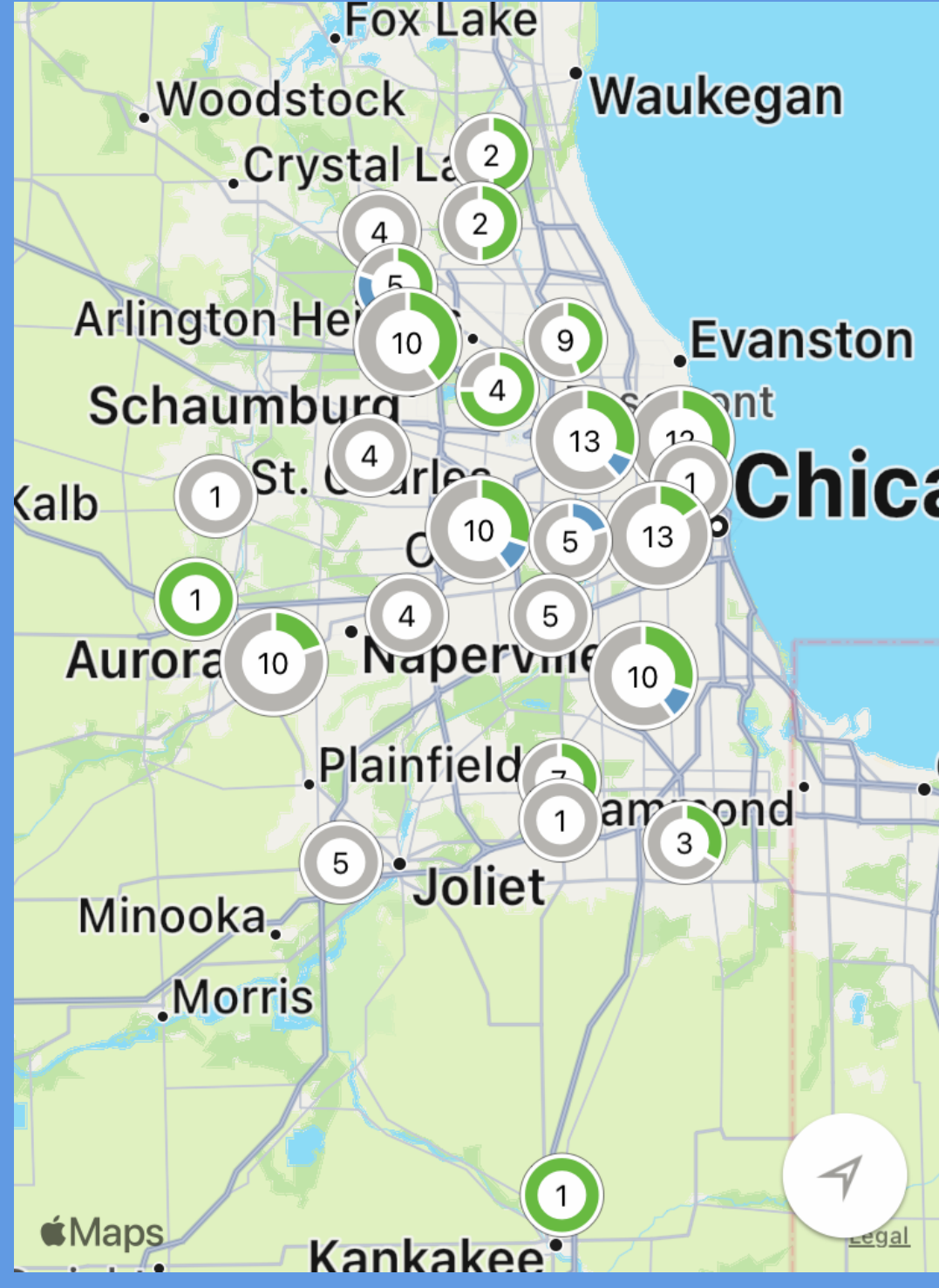
Session ??: Charger Apps



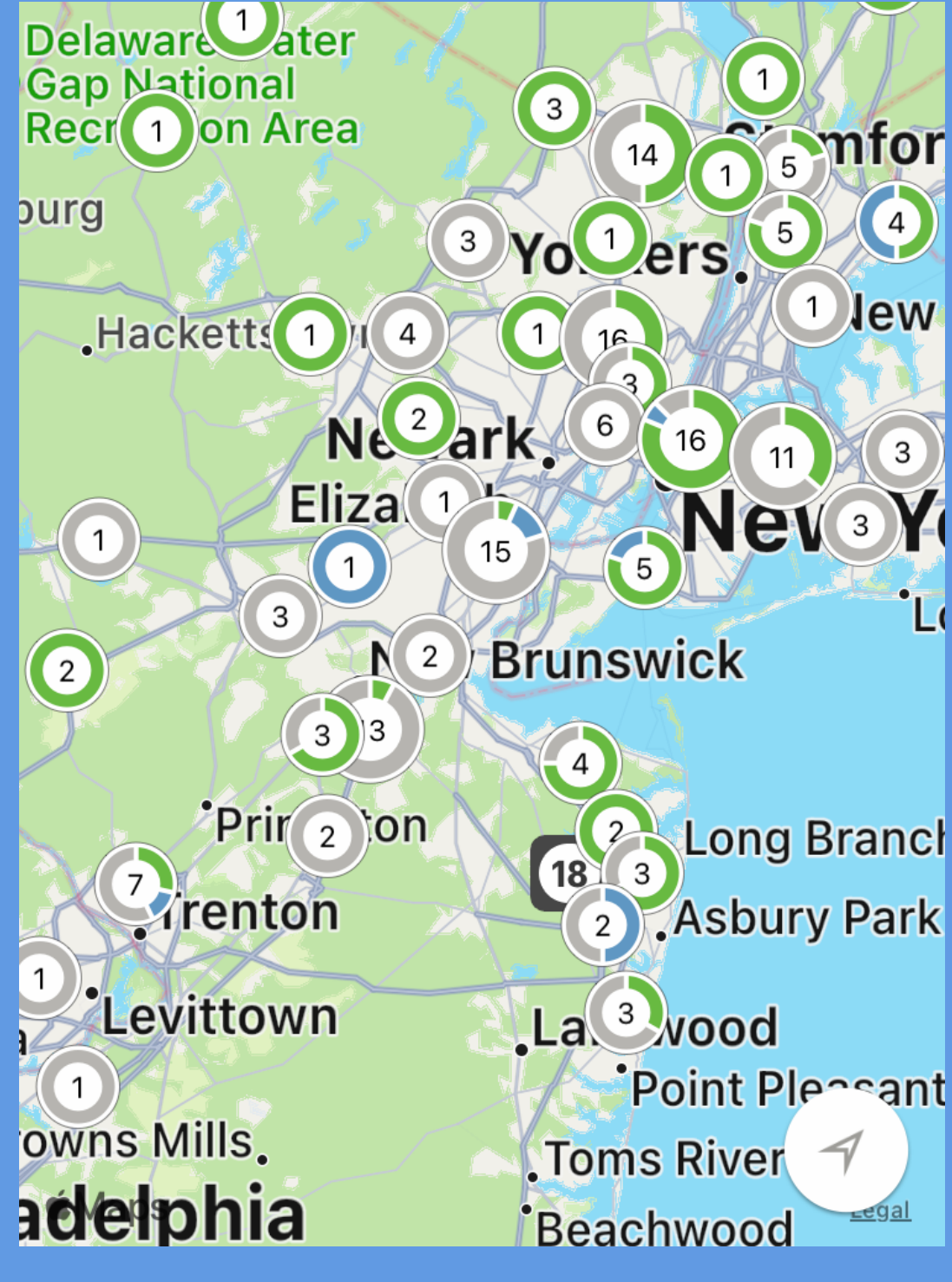
Los Angeles



St Louis



Chicago

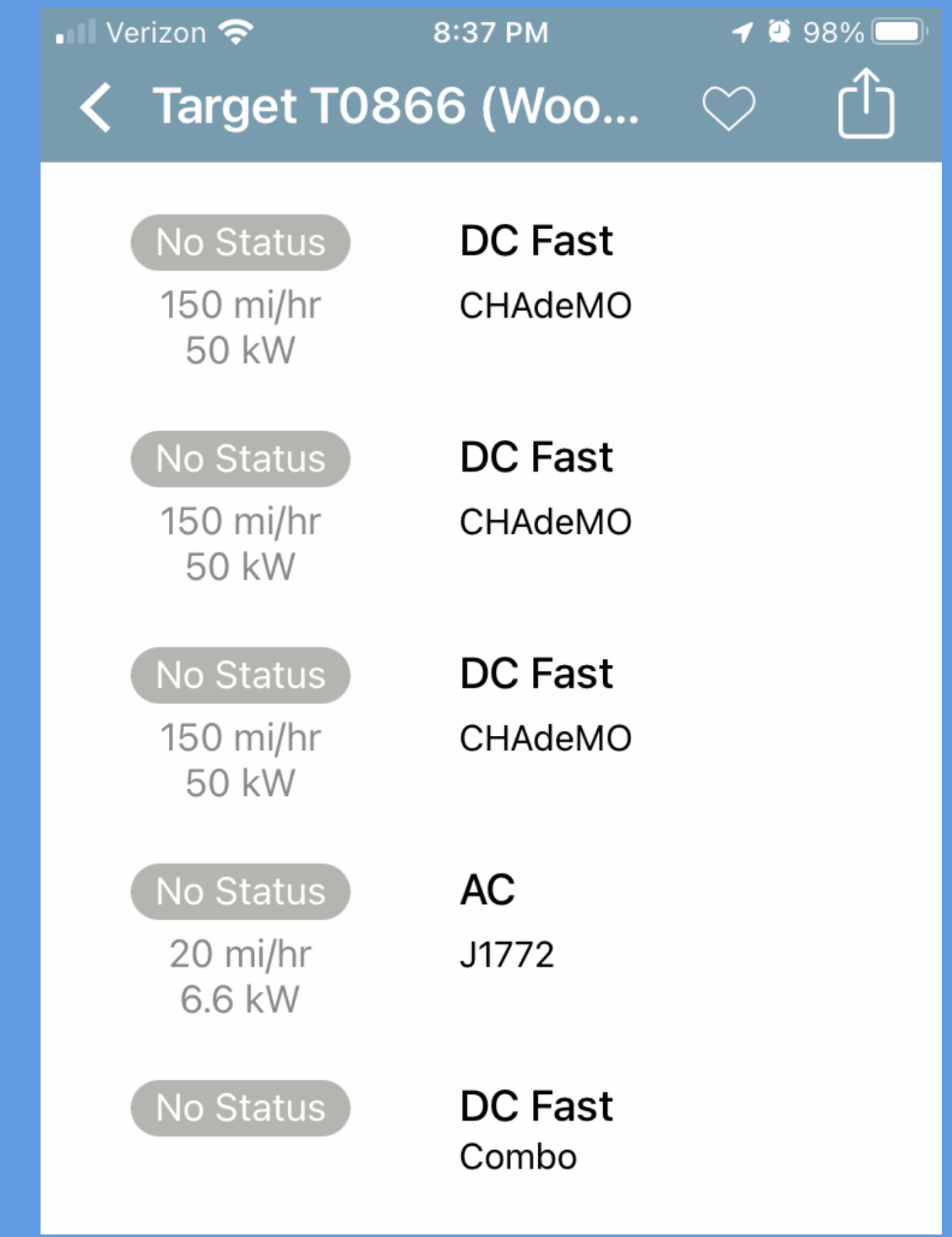
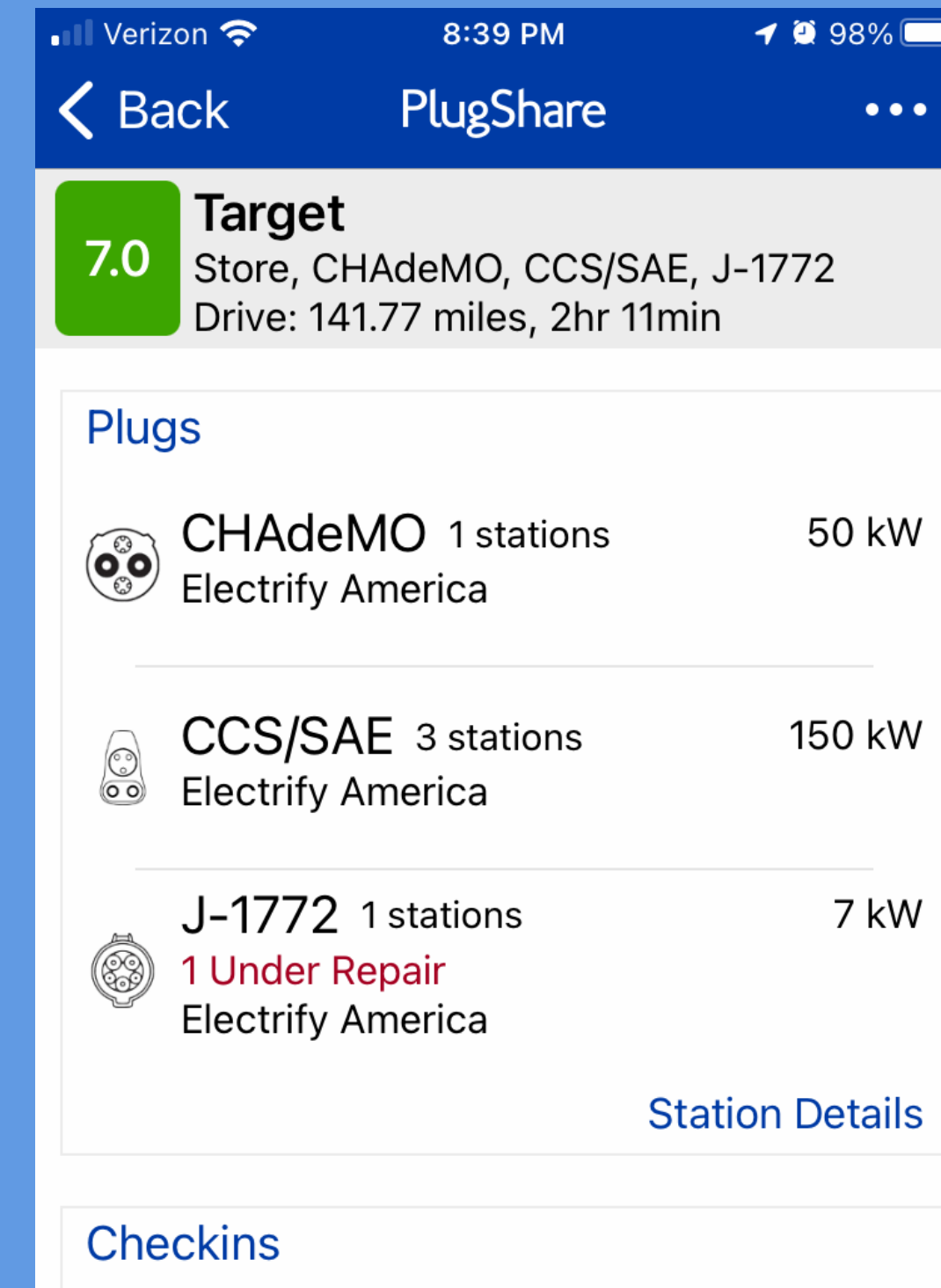
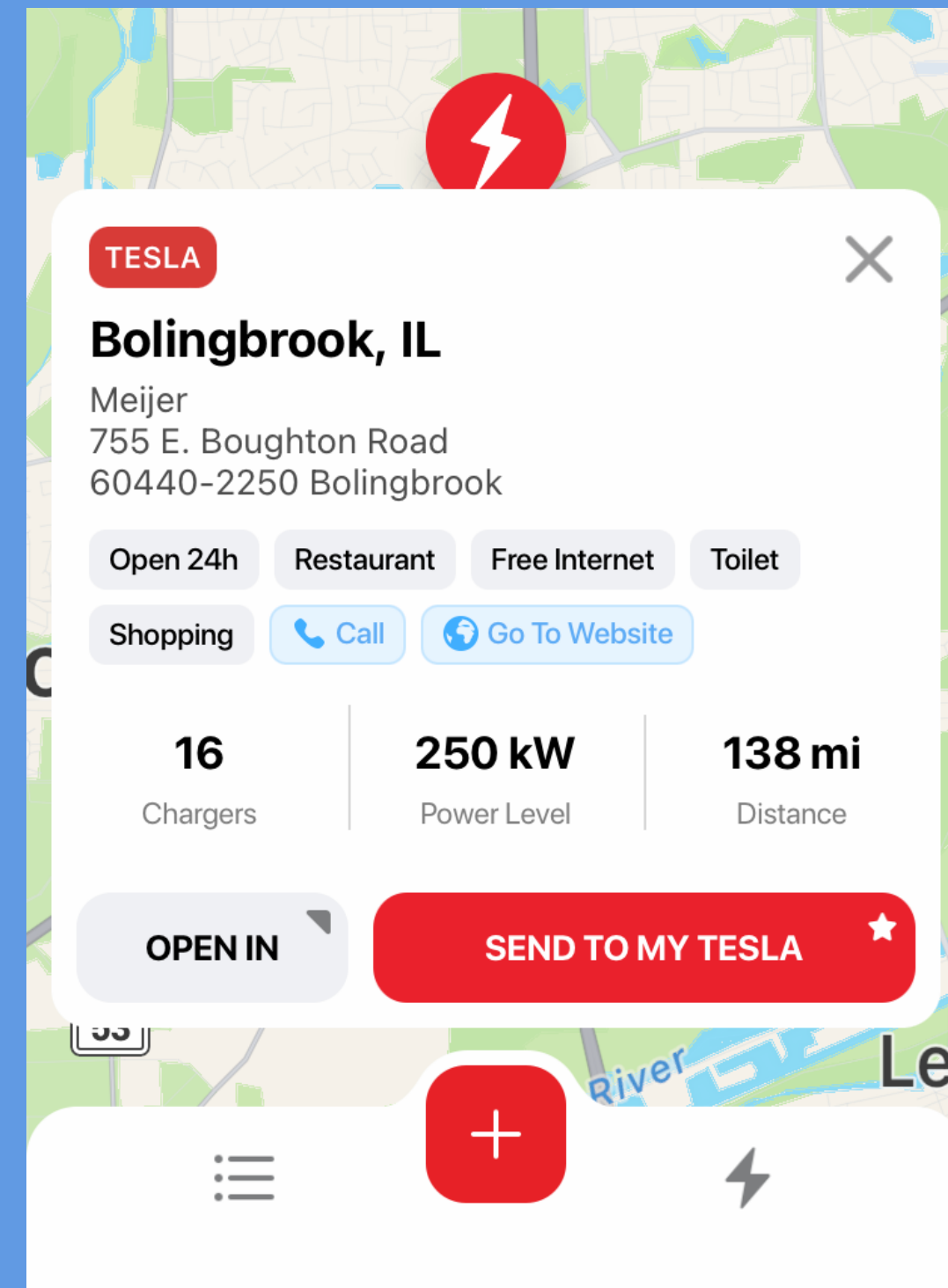
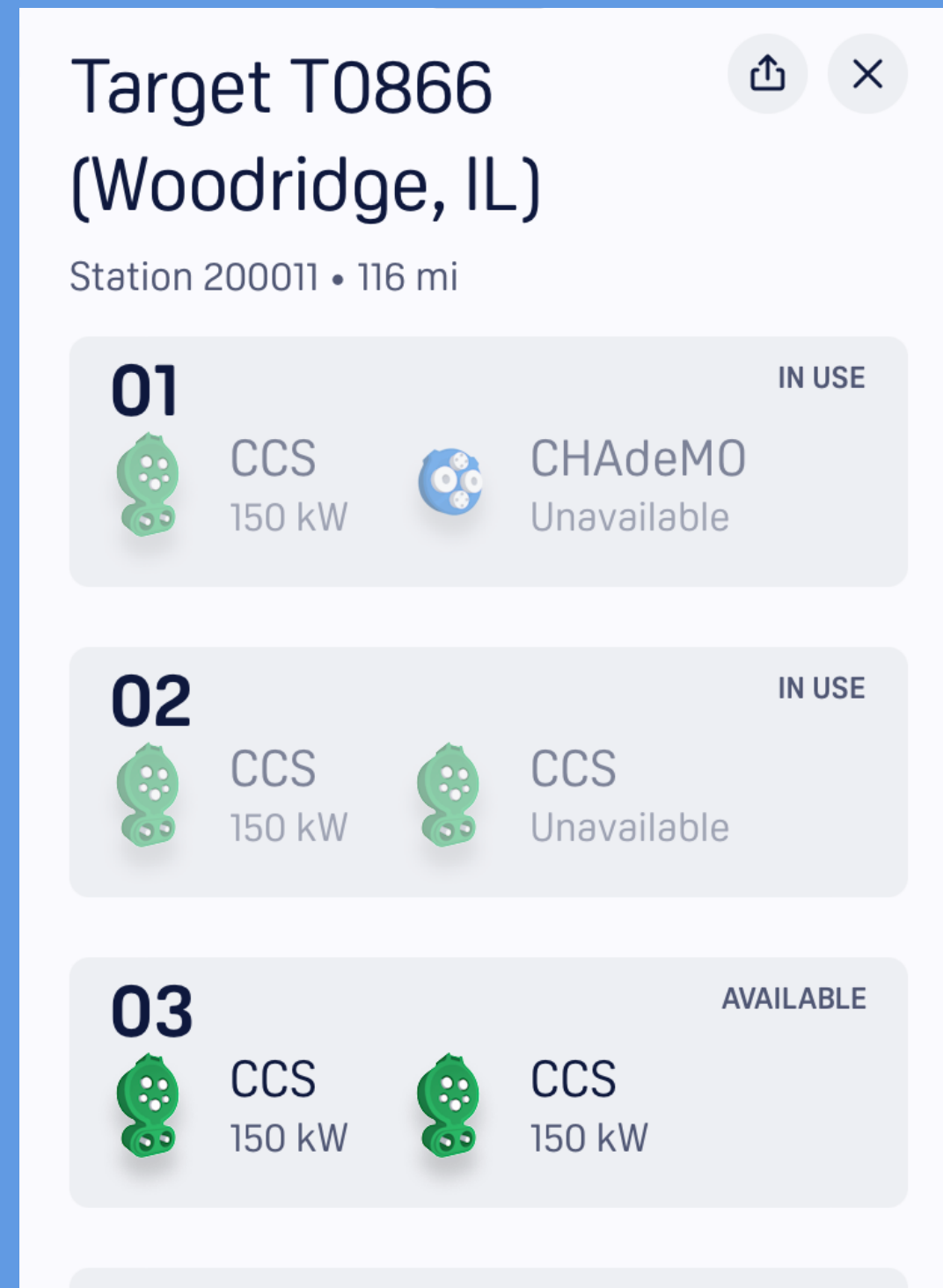


New York

ChargePoint
Grouped locations and
current usage.

Each map section is the same scale and shows
how well each city is served by public charging

Session ??: Charger Apps



Electrify America

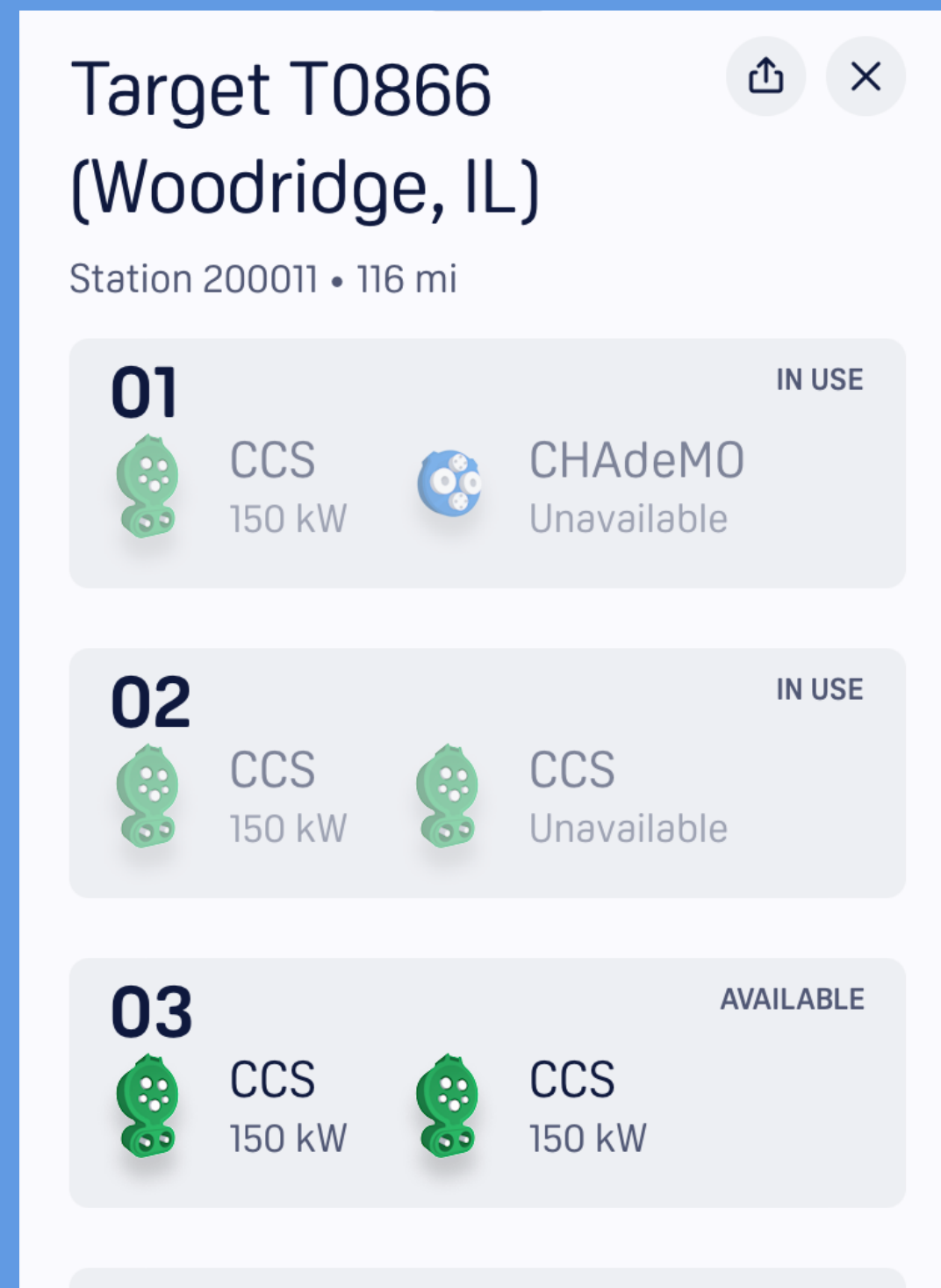
Tesla

Plugshare

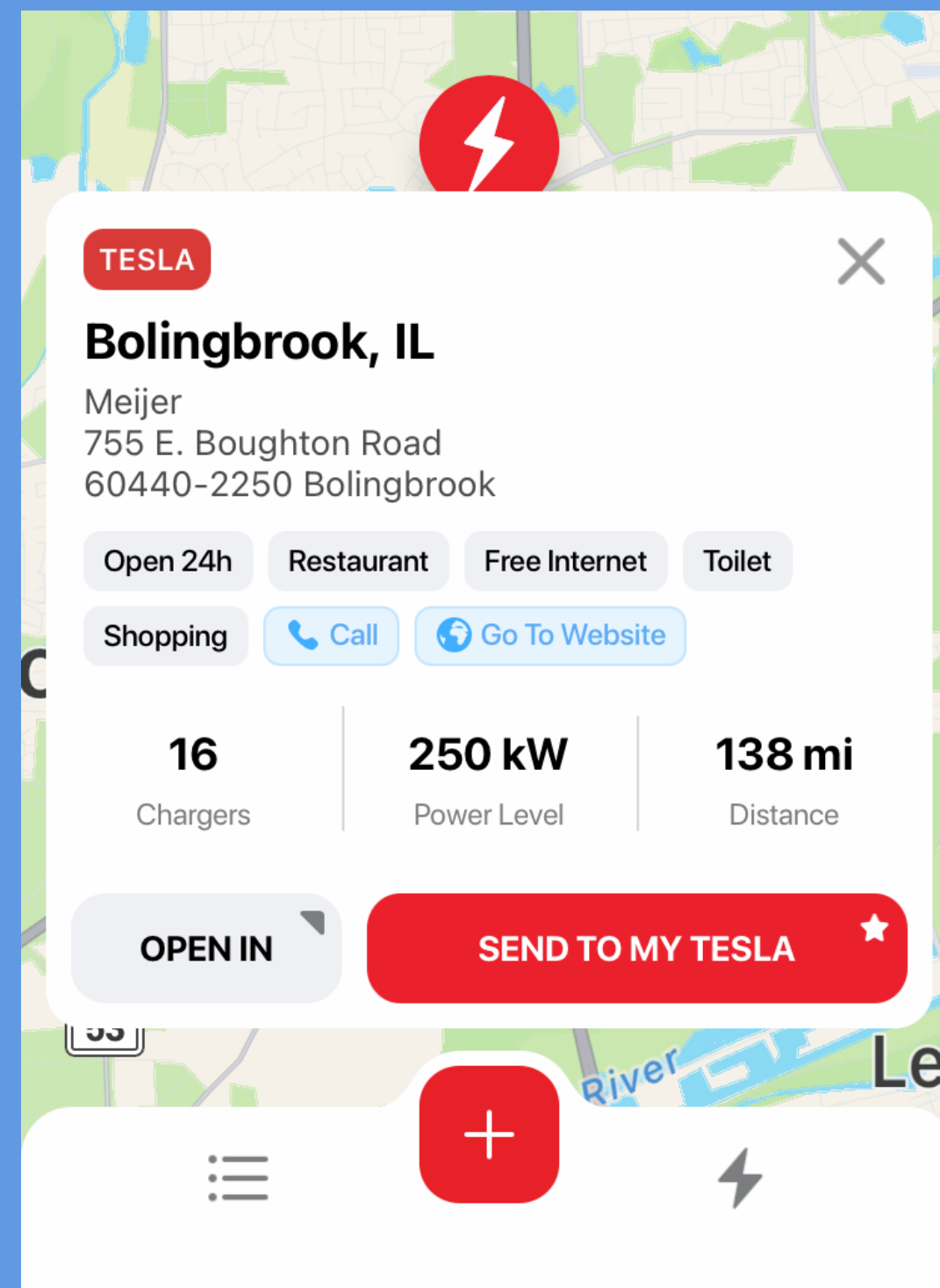
ChargePoint

How the four apps display what is available at a location. Electrify America shows charger status and uses a GPS distance (off by 26 miles). Tesla, correct distance and amenities. PlugShare has distance correct, lists correct connectors, shows details with additional tap. (but not status). ChargePoint also does GPS distance, does list the chargers correctly.

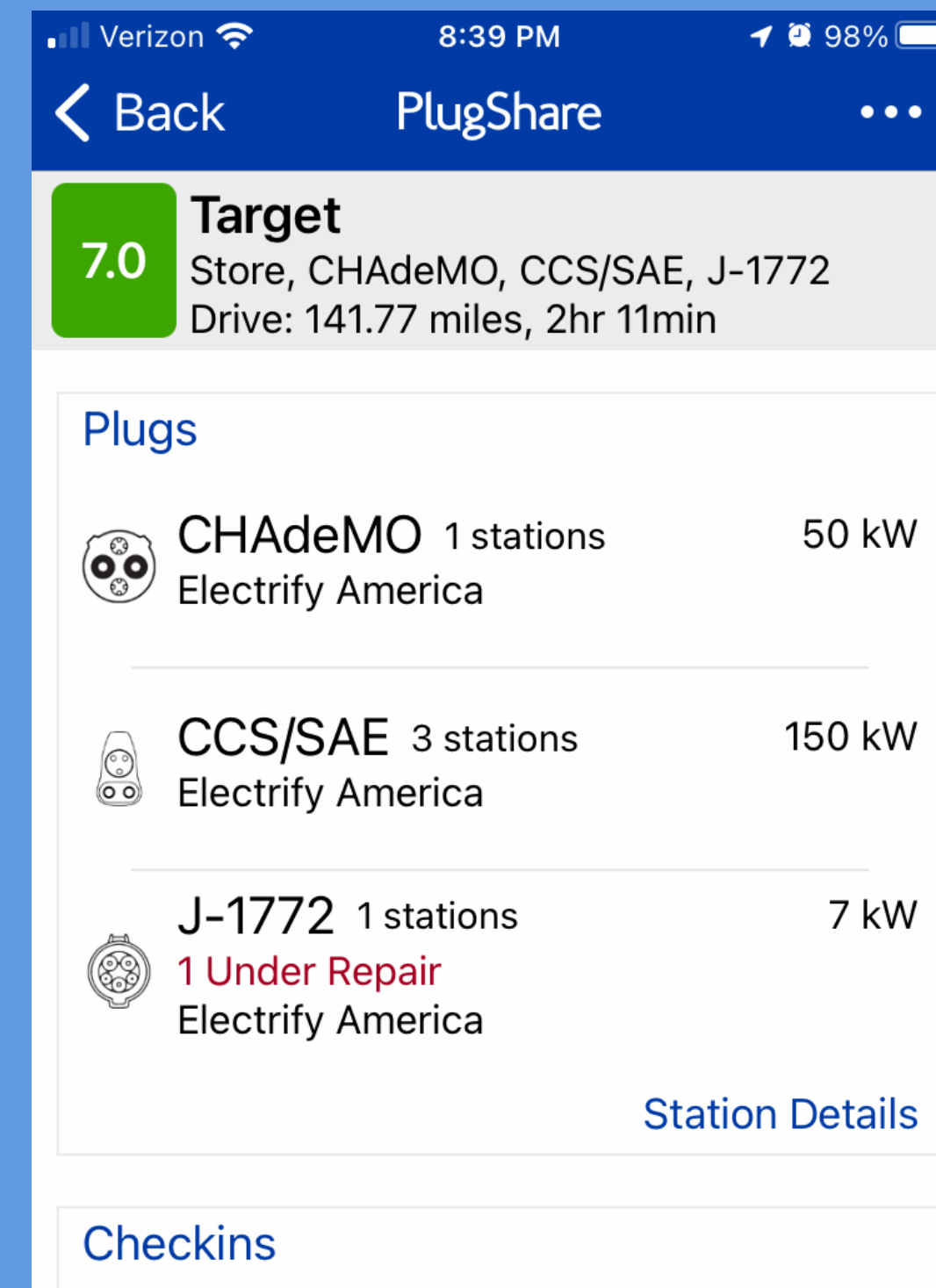
Session ??: Charger Apps



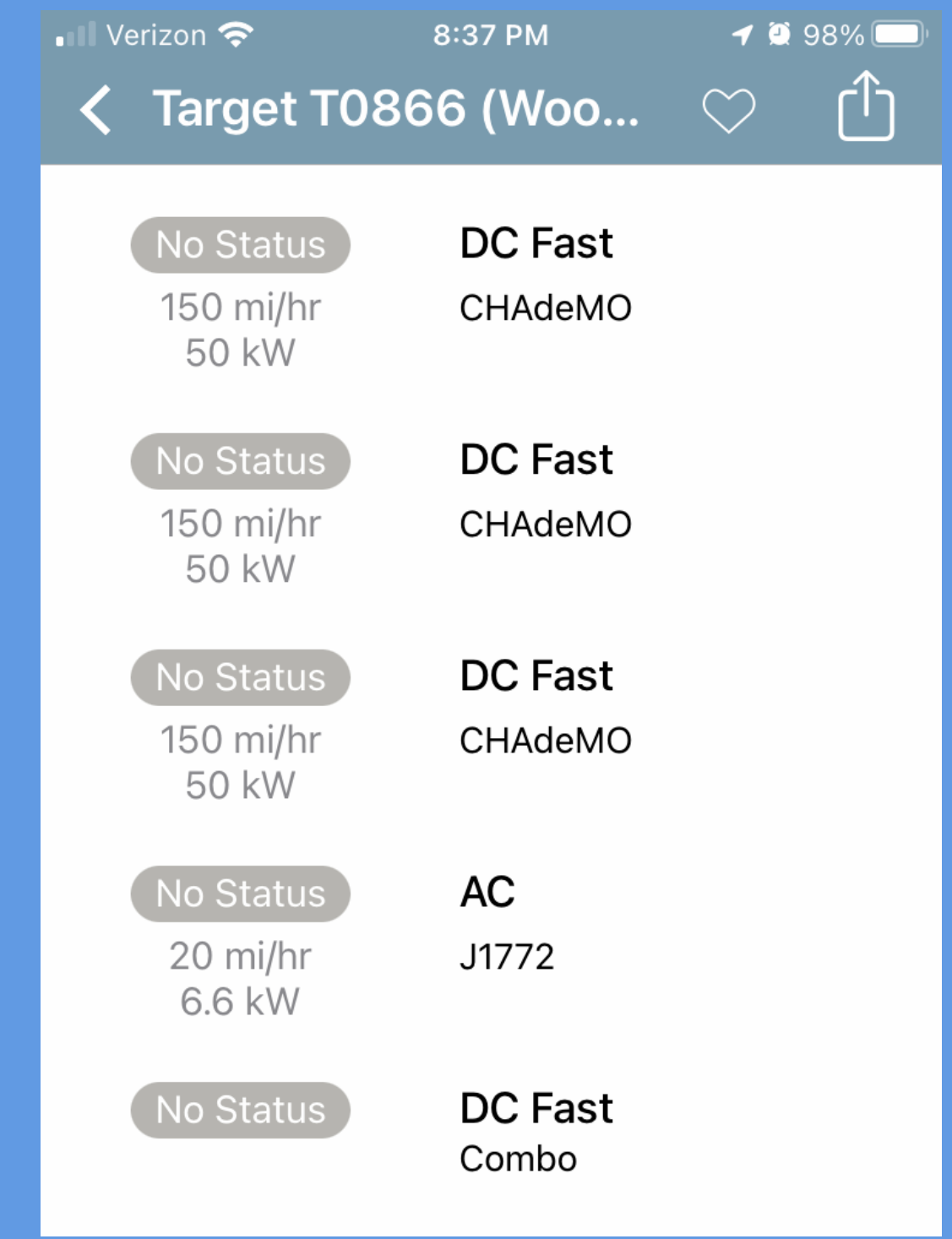
Electrify America



Tesla



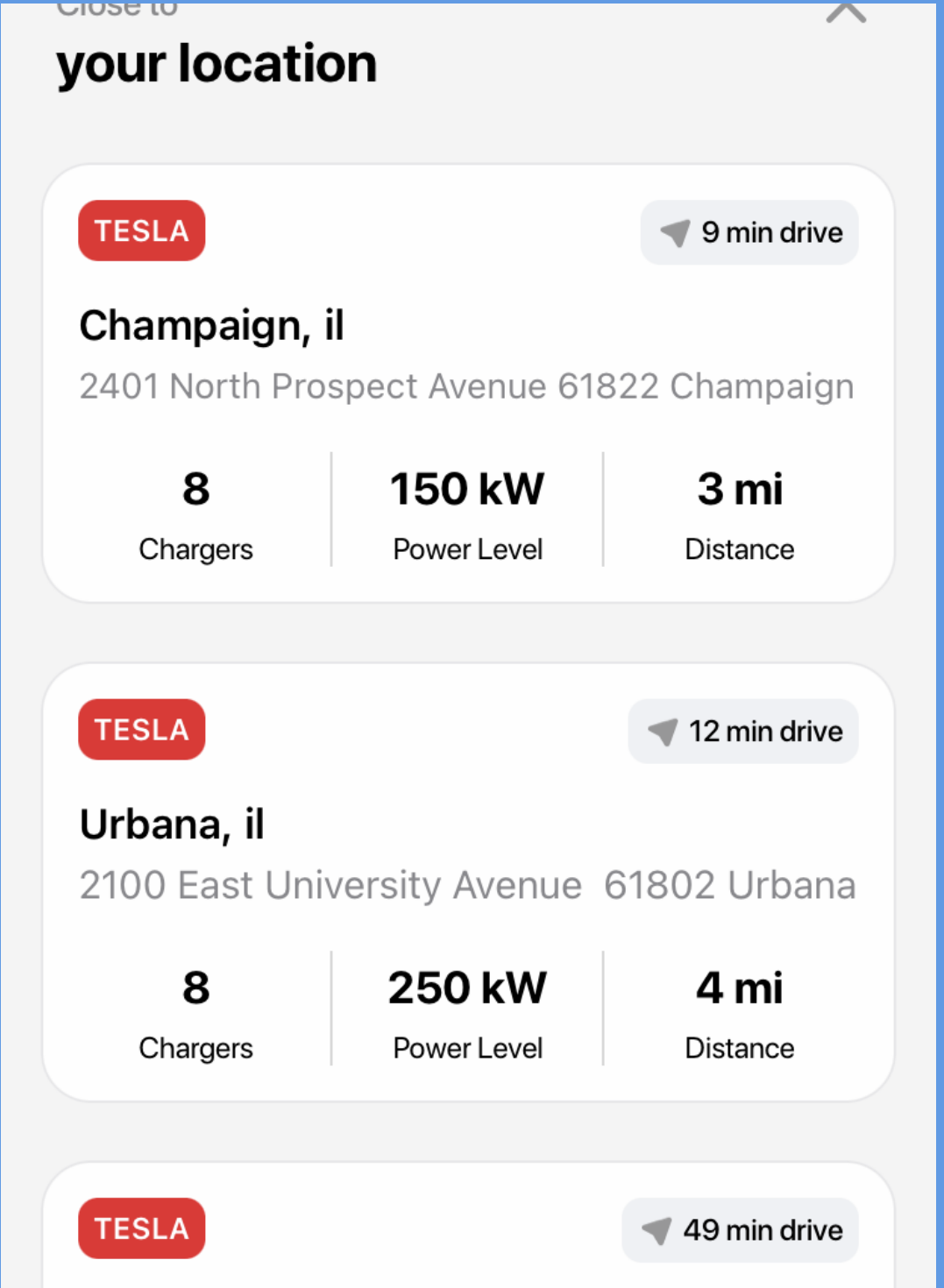
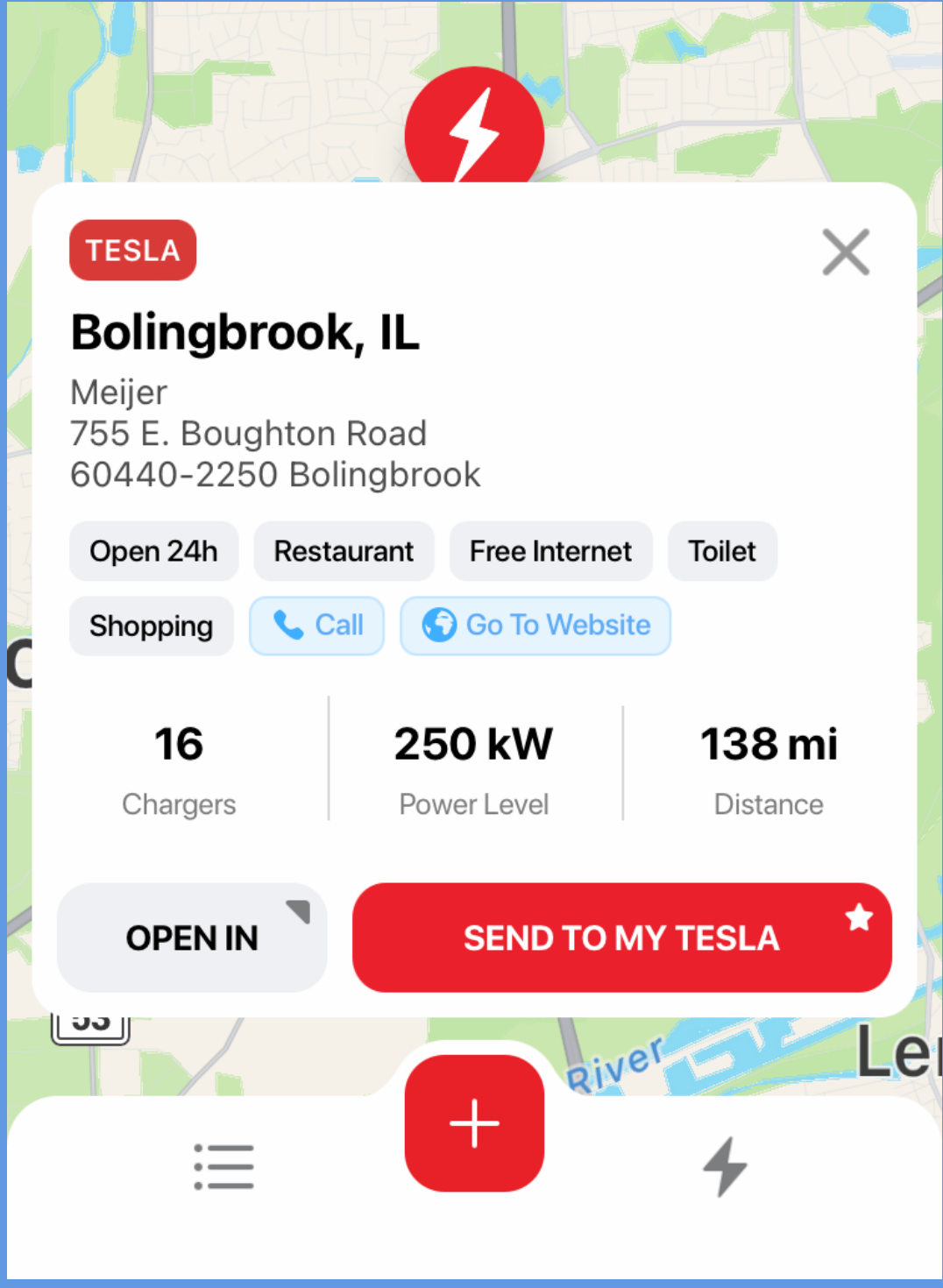
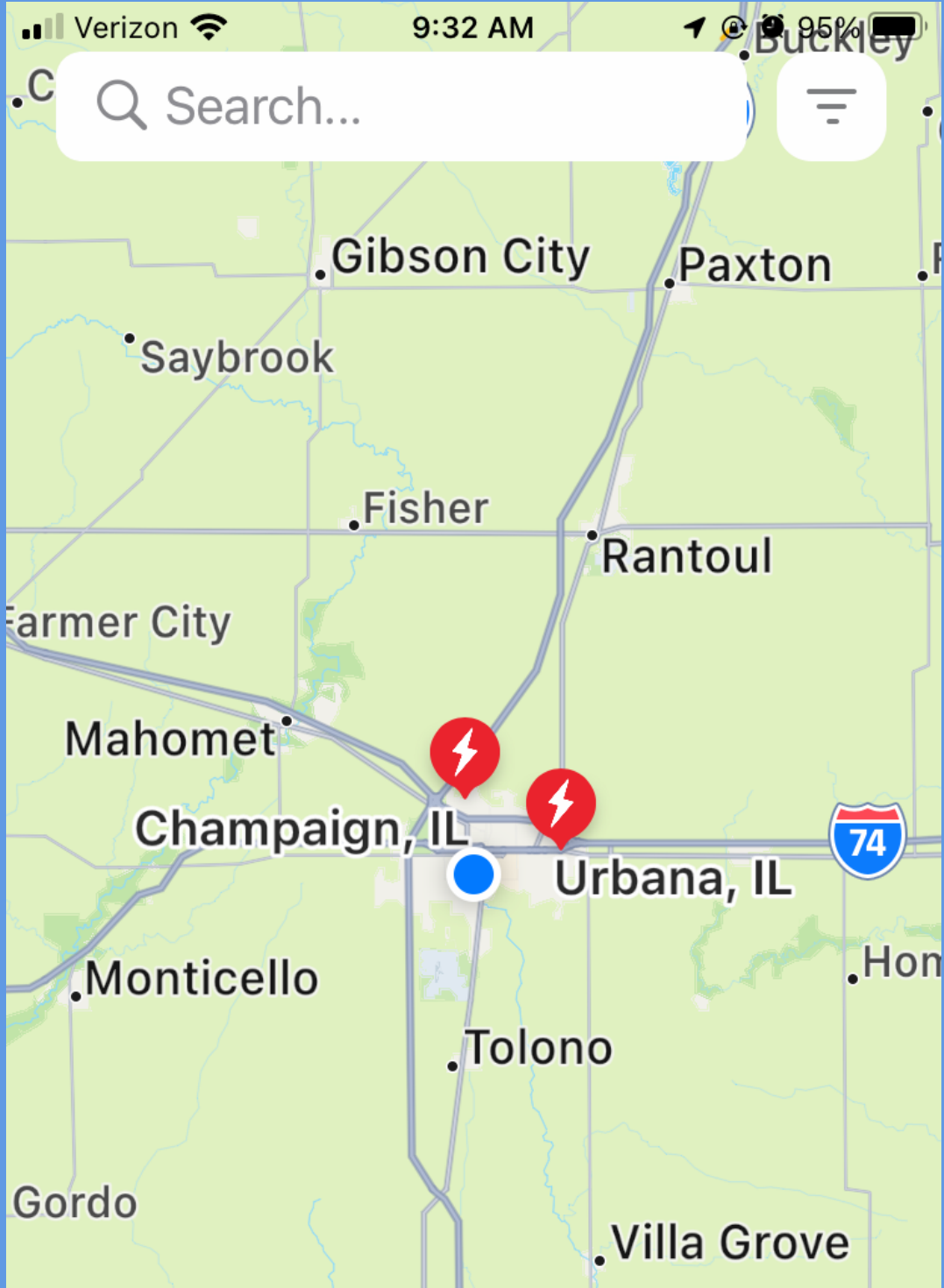
Plugshare



ChargePoint

PlugShare is one of the few apps with comments and reviews. Tesla, Electrify America, ChargePoint and others generally will post if a charger is “unavailable” but will not have comments. PlugShare does not have access to network information and will not have information if a charger is currently in use.

Session ??: Charger Apps

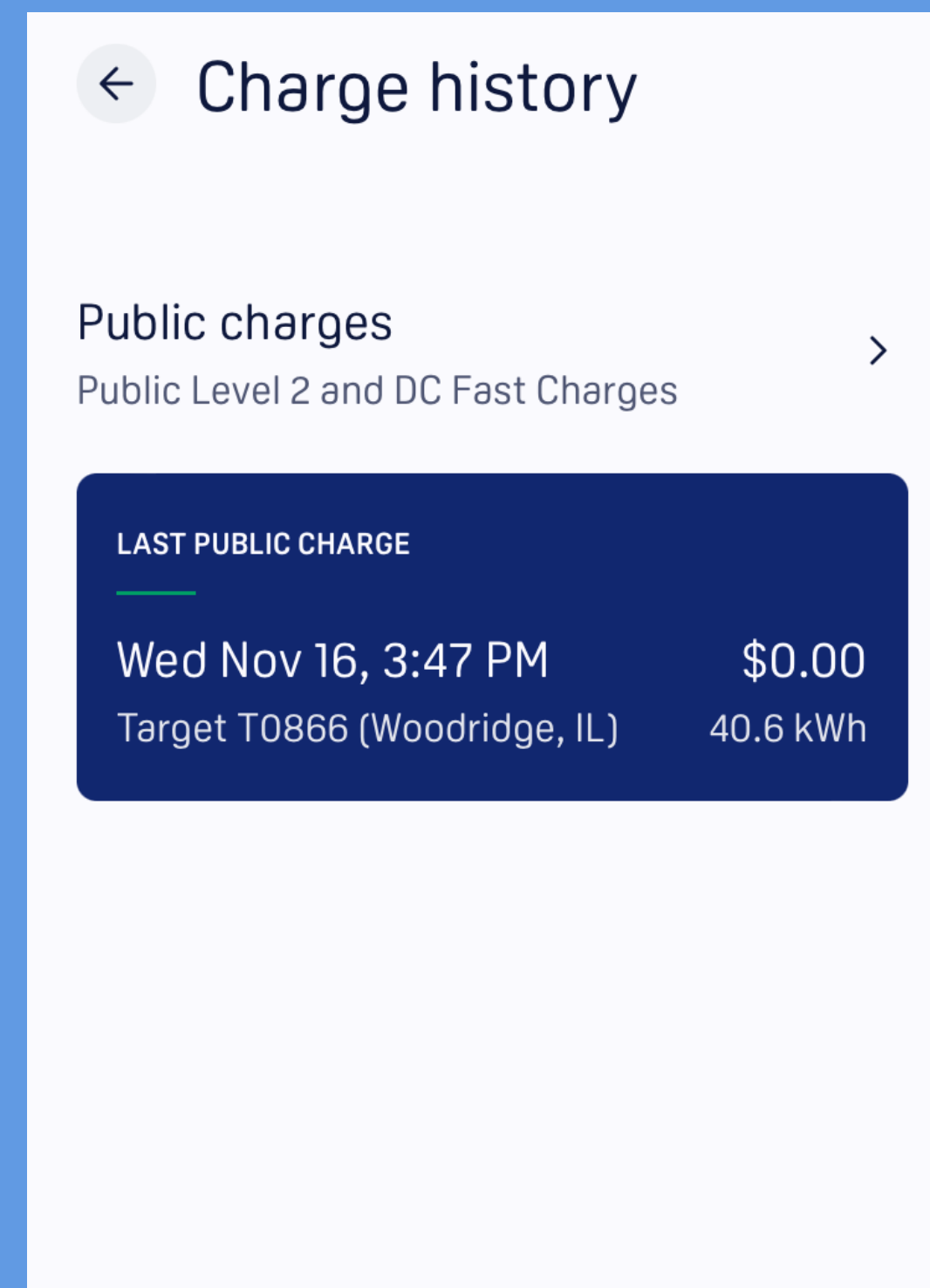
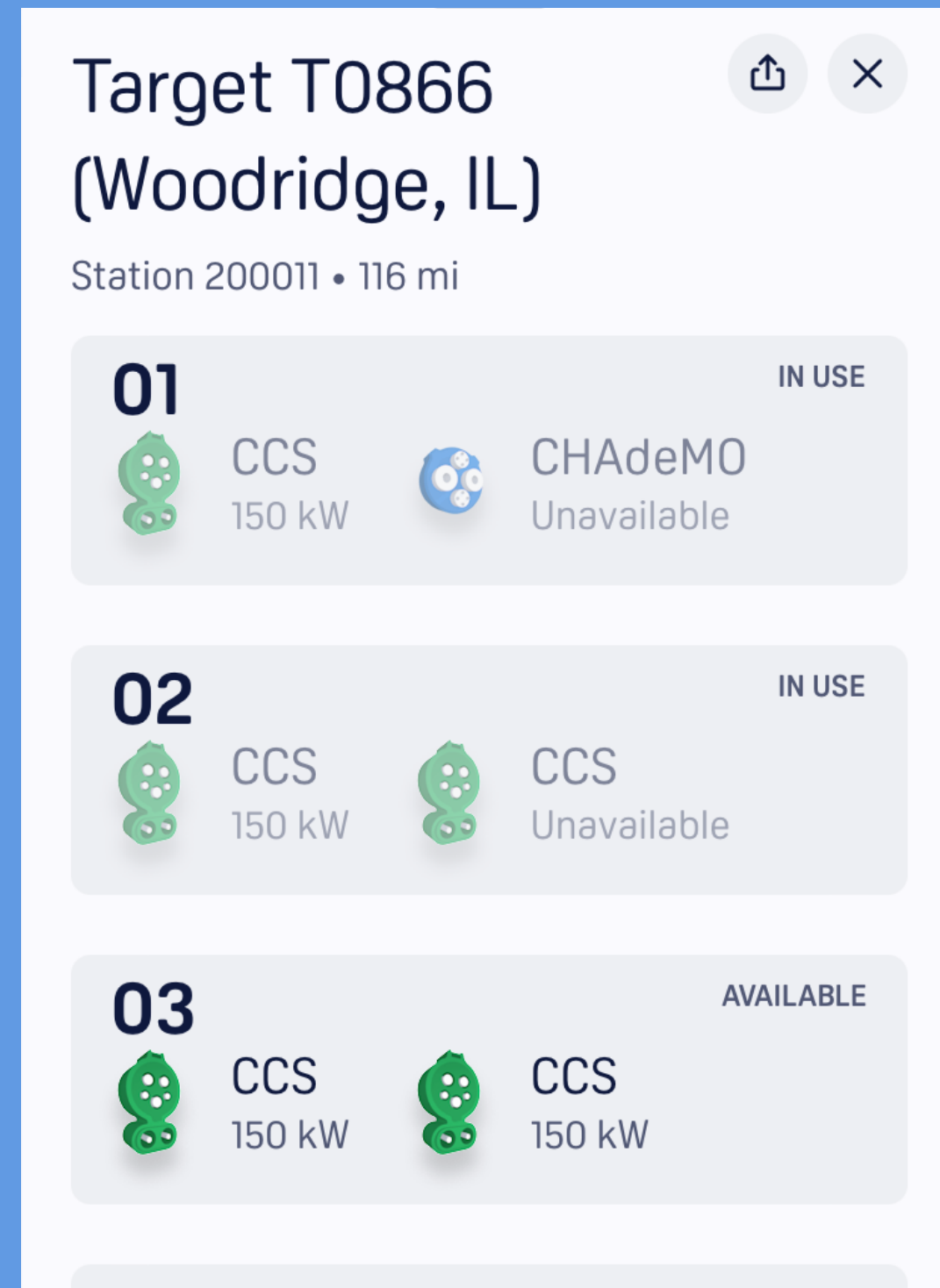
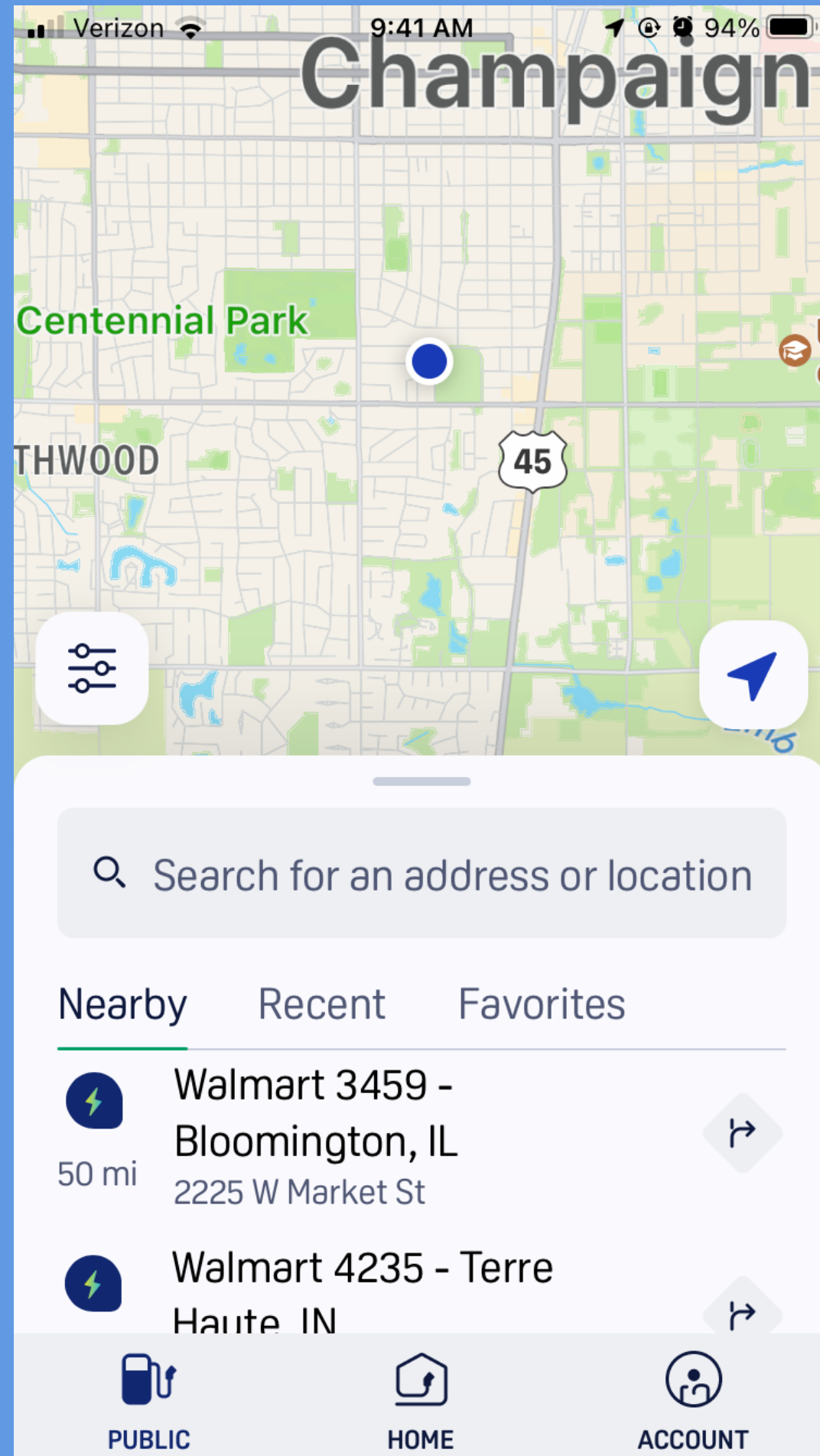


Tesla is its own world - you only need it if you own one.

Left image the start screen if you're in Champaign, center -the location on I355, right - details of current location.

Tesla

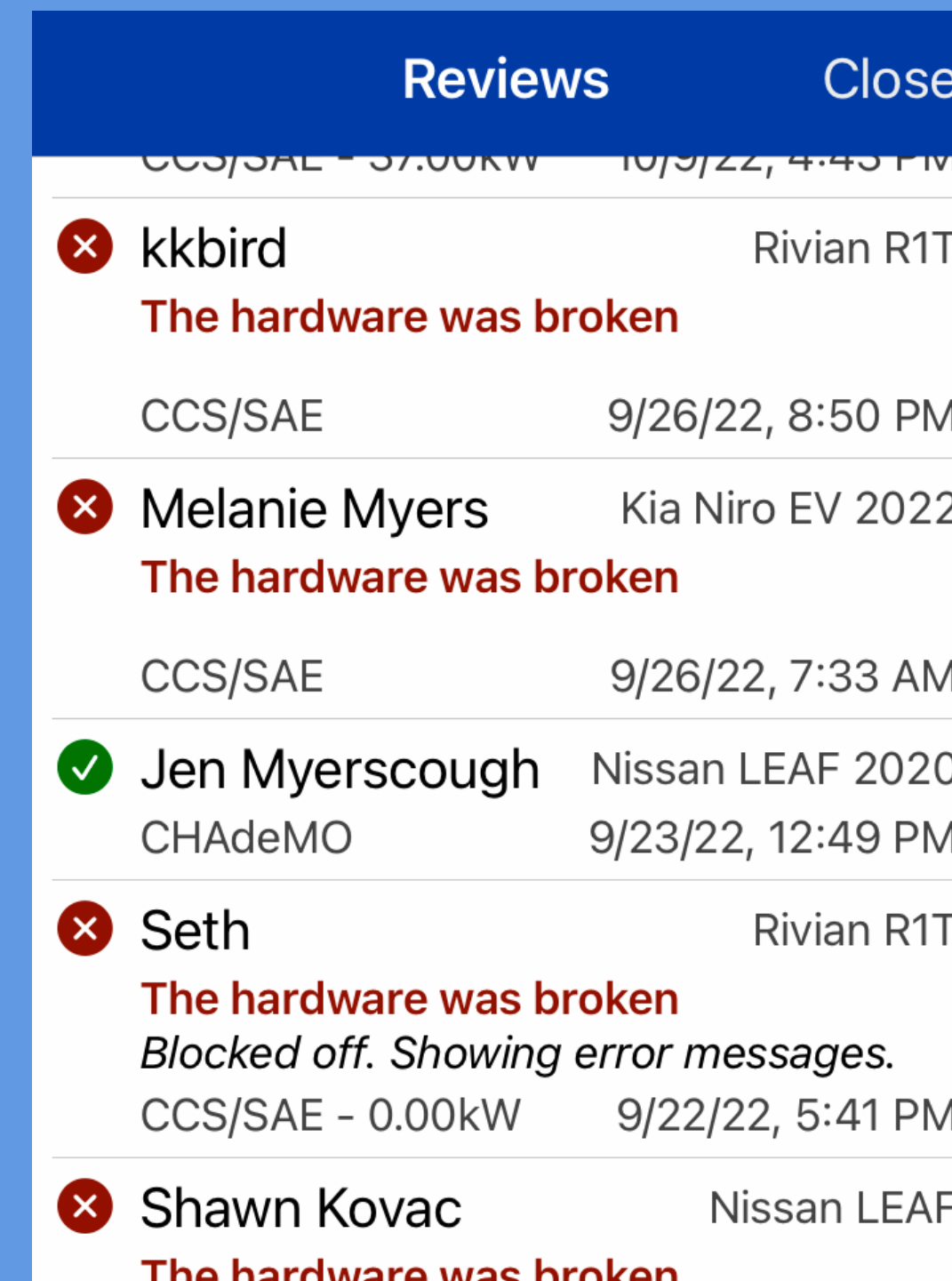
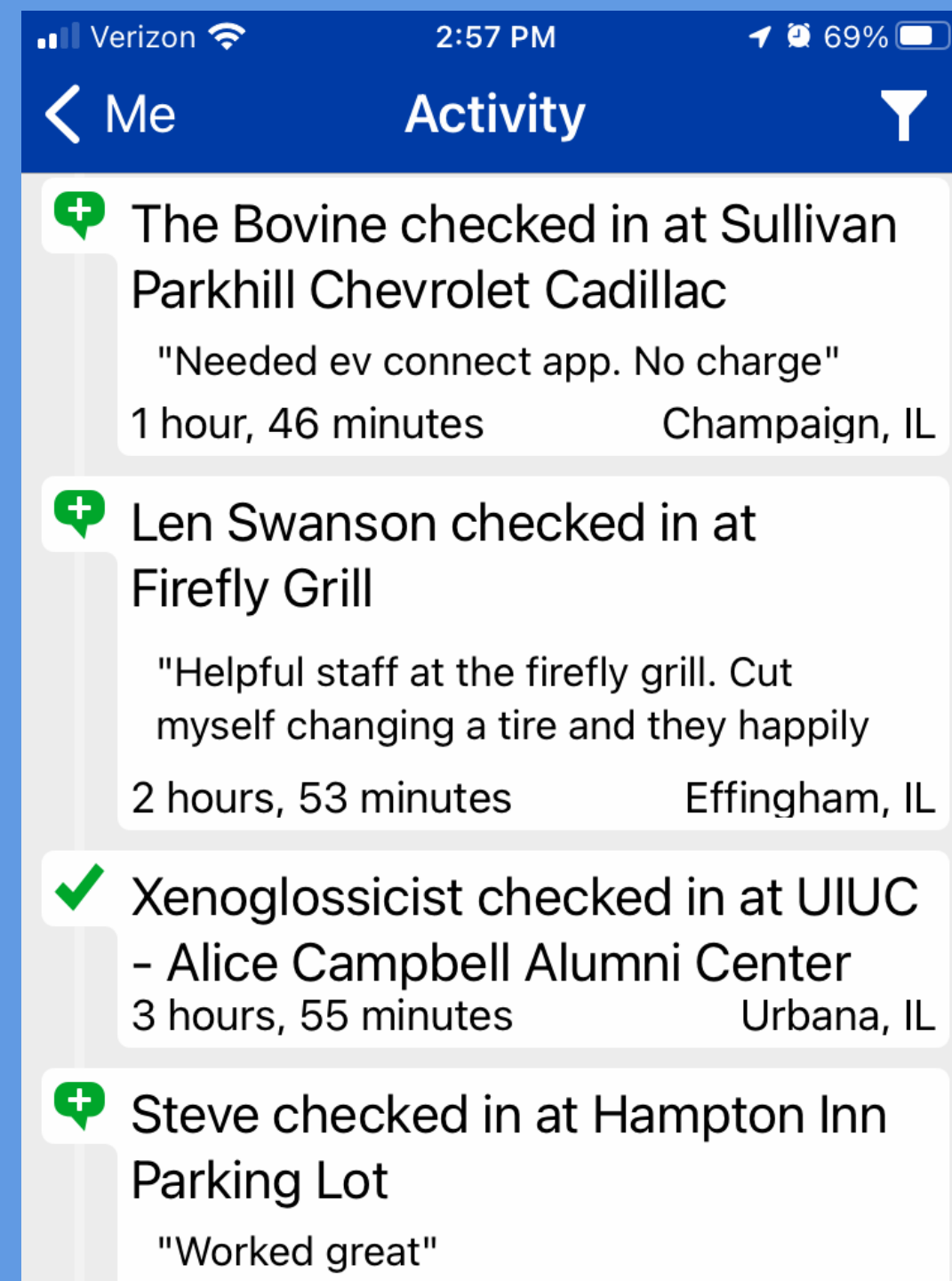
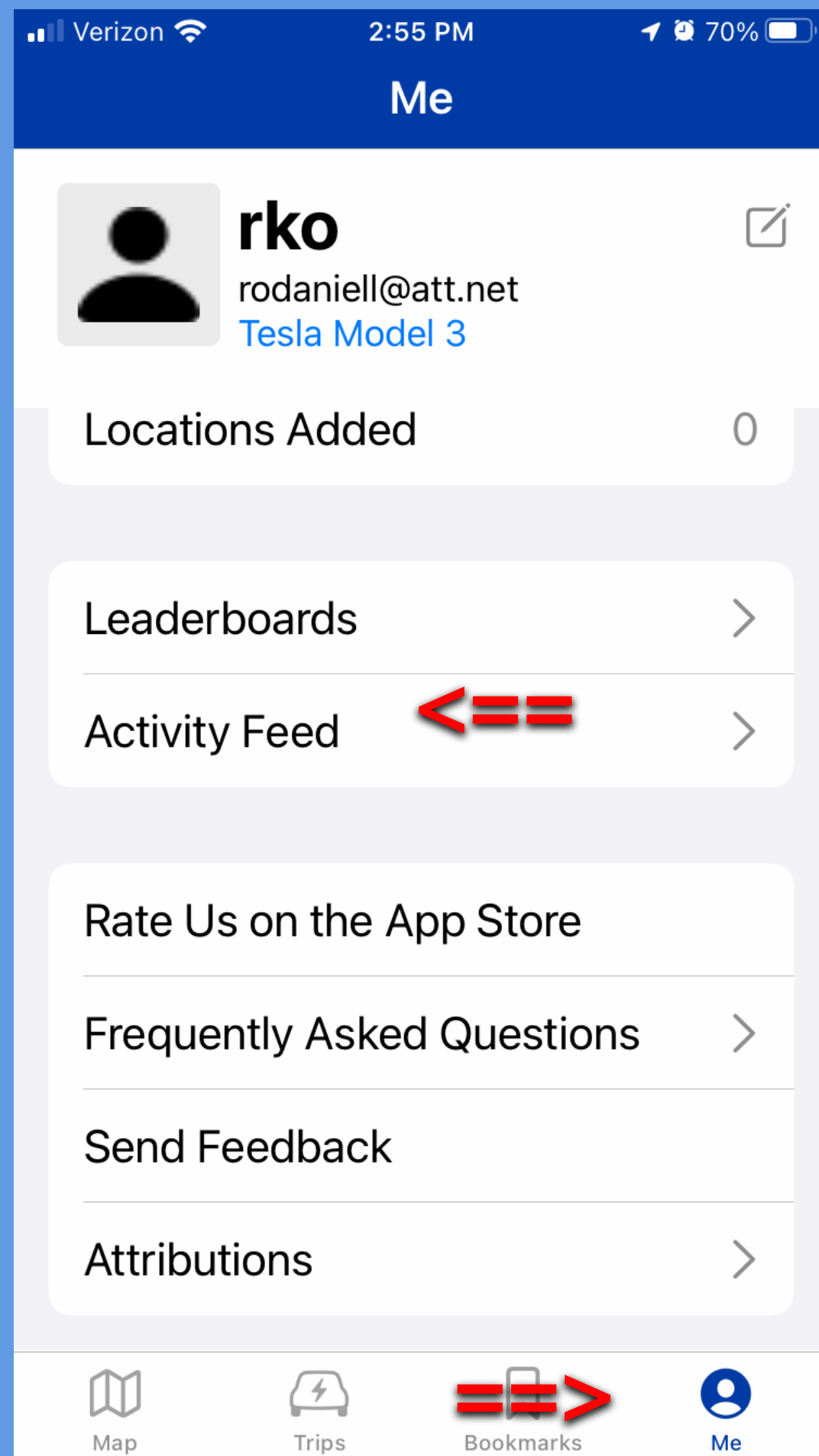
Session ??: Charger Apps



EA- I find very useful because its the best high speed charging network. Left image the start screen if you're in Champaign, center -My go to location in the Chicago area, right - I like the charging history .

Electrify America

Session ??: Charger Apps



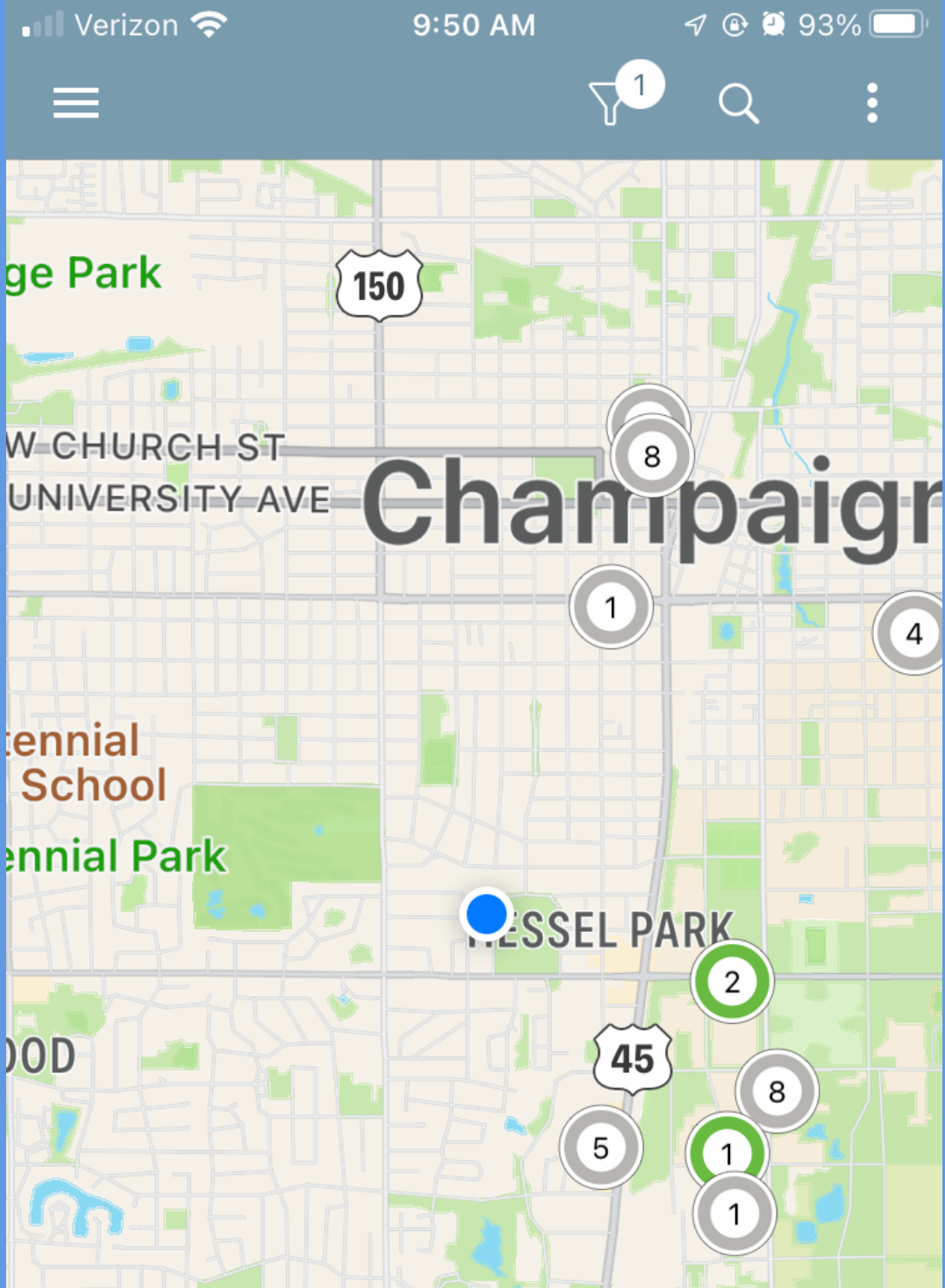
The "reviews" are checkins posted directly to a specific charger location, in this case the Wally's in Pontiac, still having charger problems.

Plugshare is a crowd source App

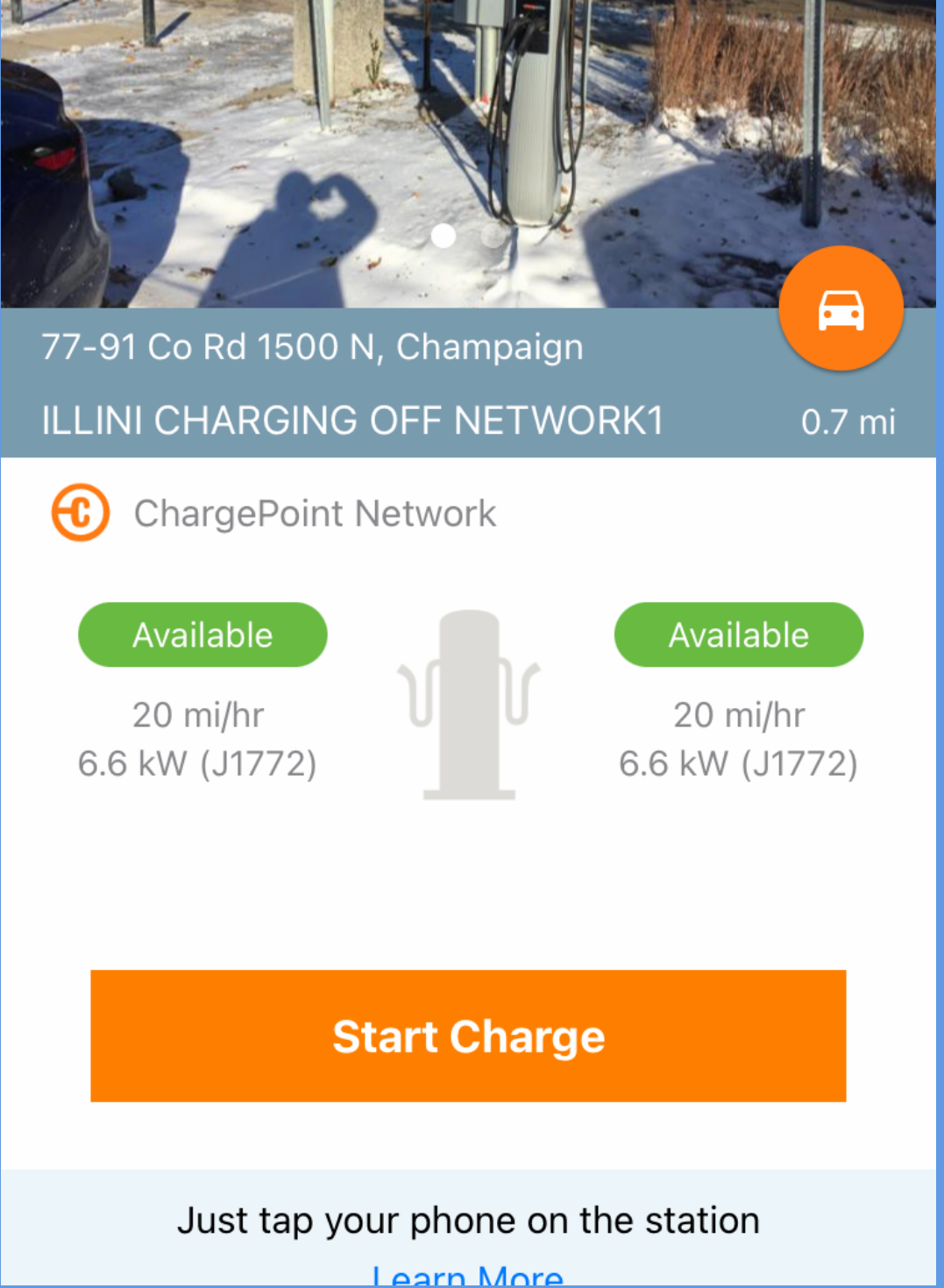
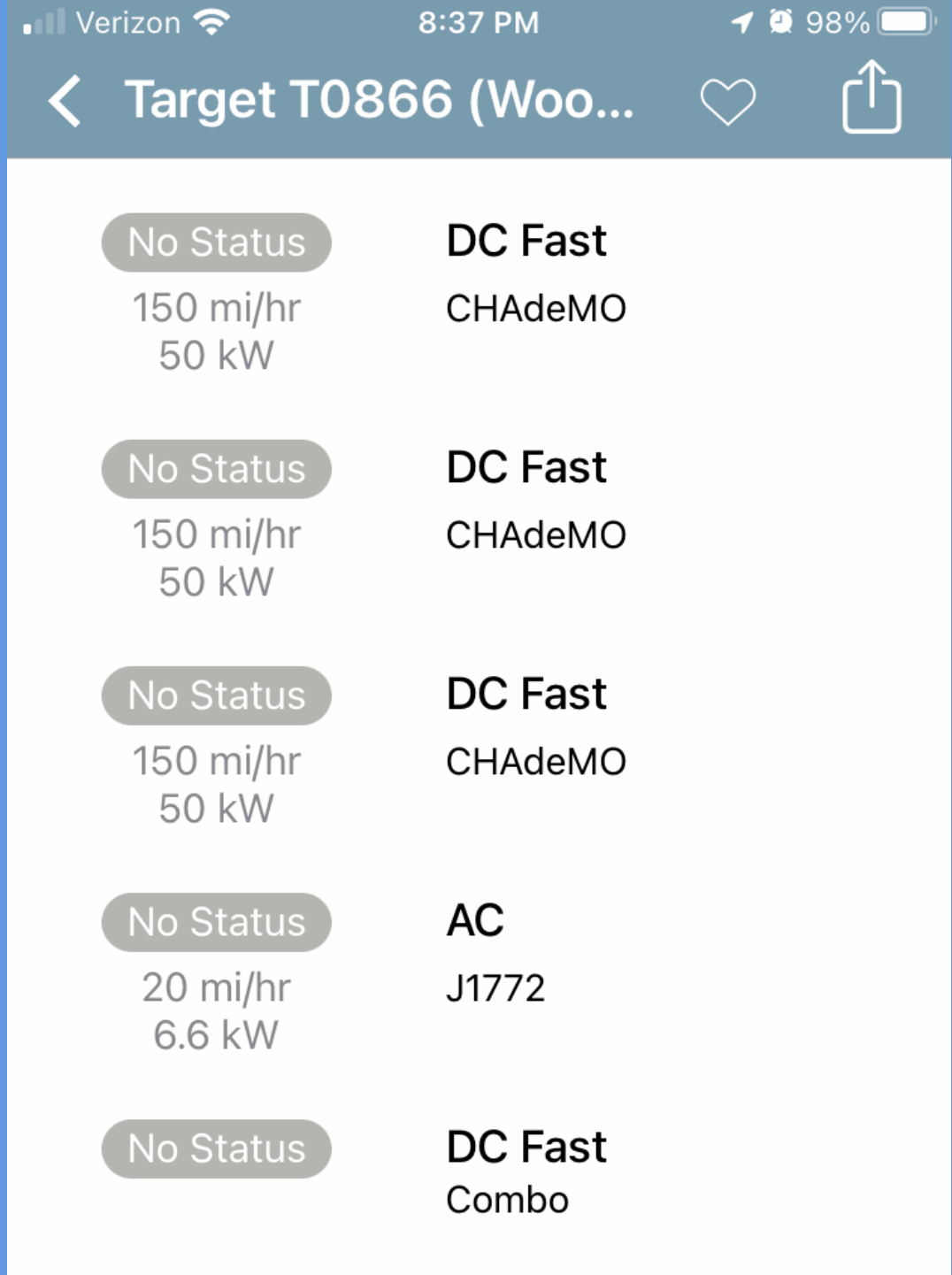
EV users locate, comment on, describe, add photos and review public chargers. Click on the "me" at the bottom, then "activity feed" (red arrows) and you will get the most recent checkins from an area within 50 miles or so from your current location.

Plugshare

Session ??: Charger Apps

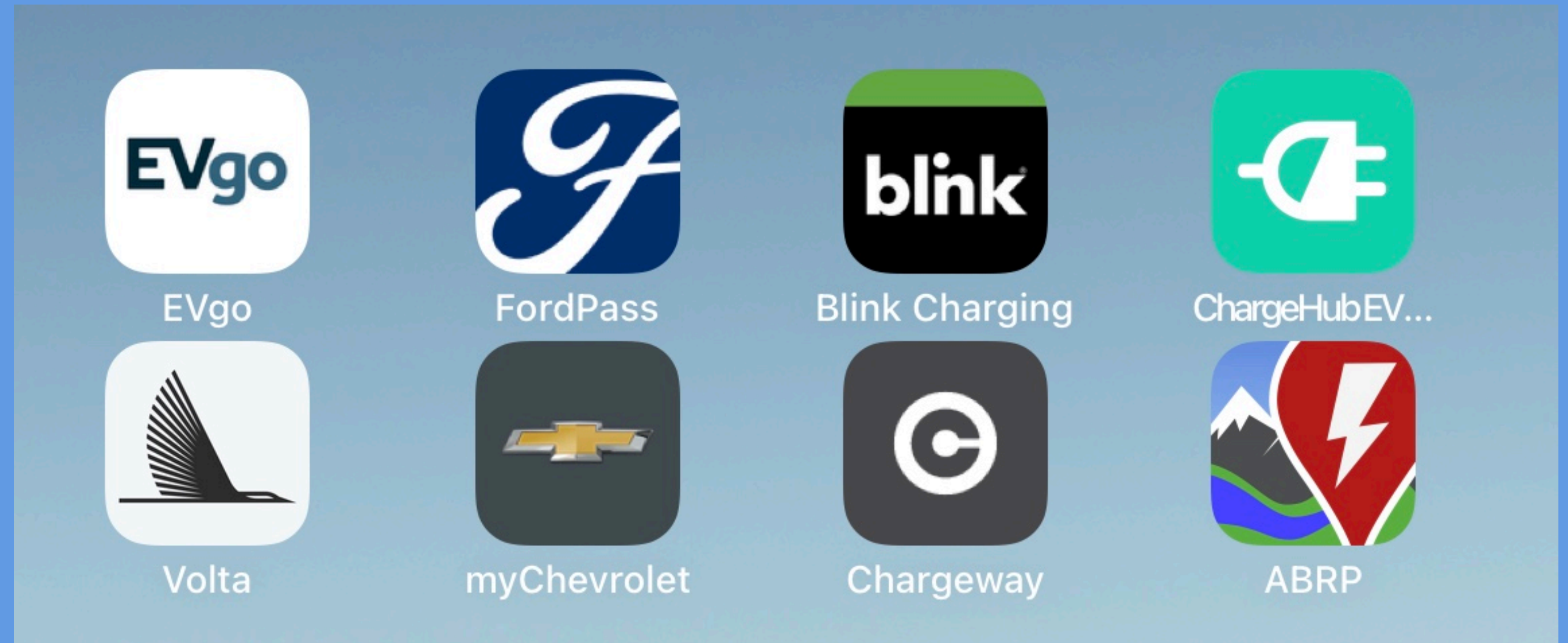


ChargePoint



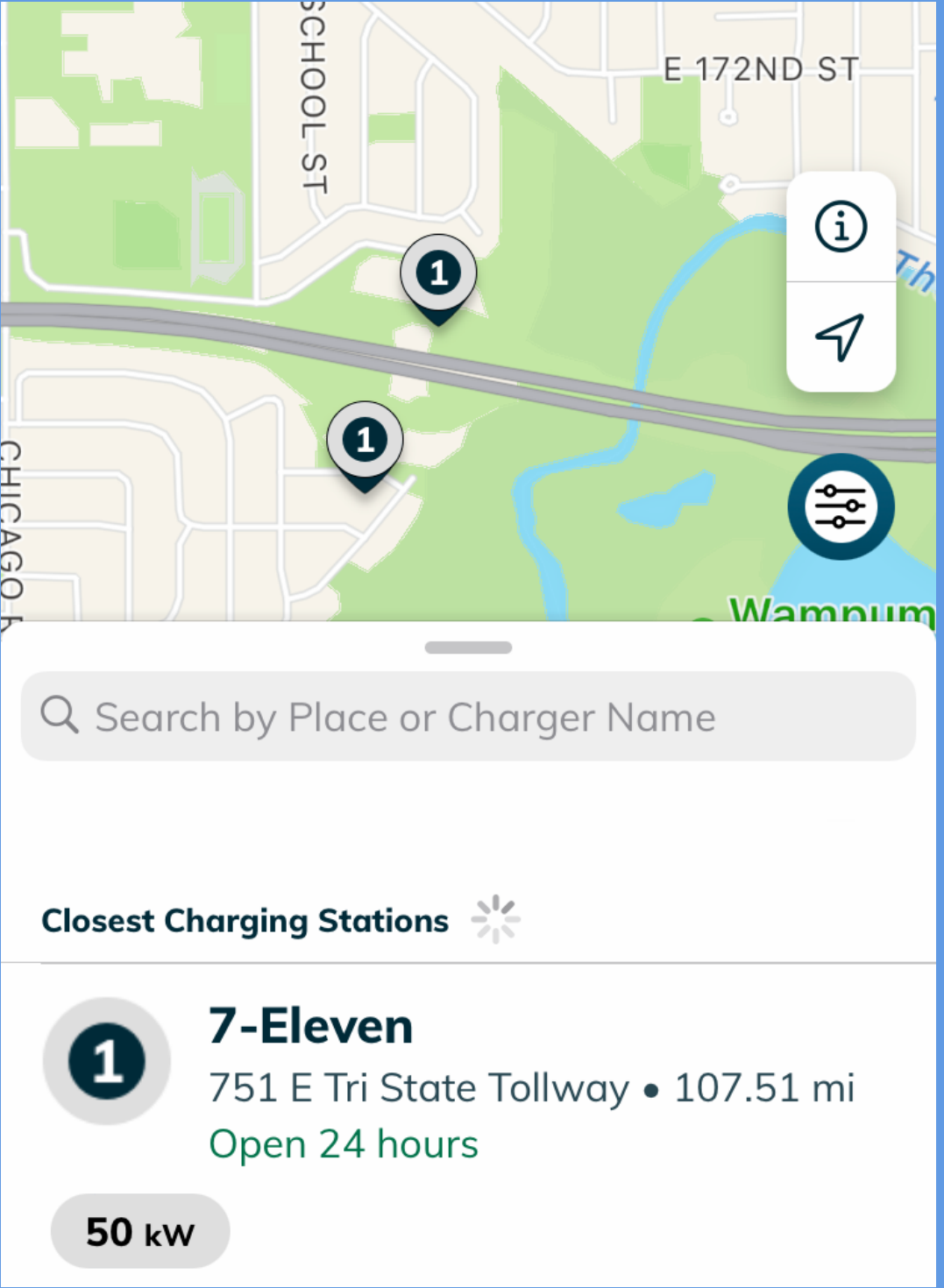
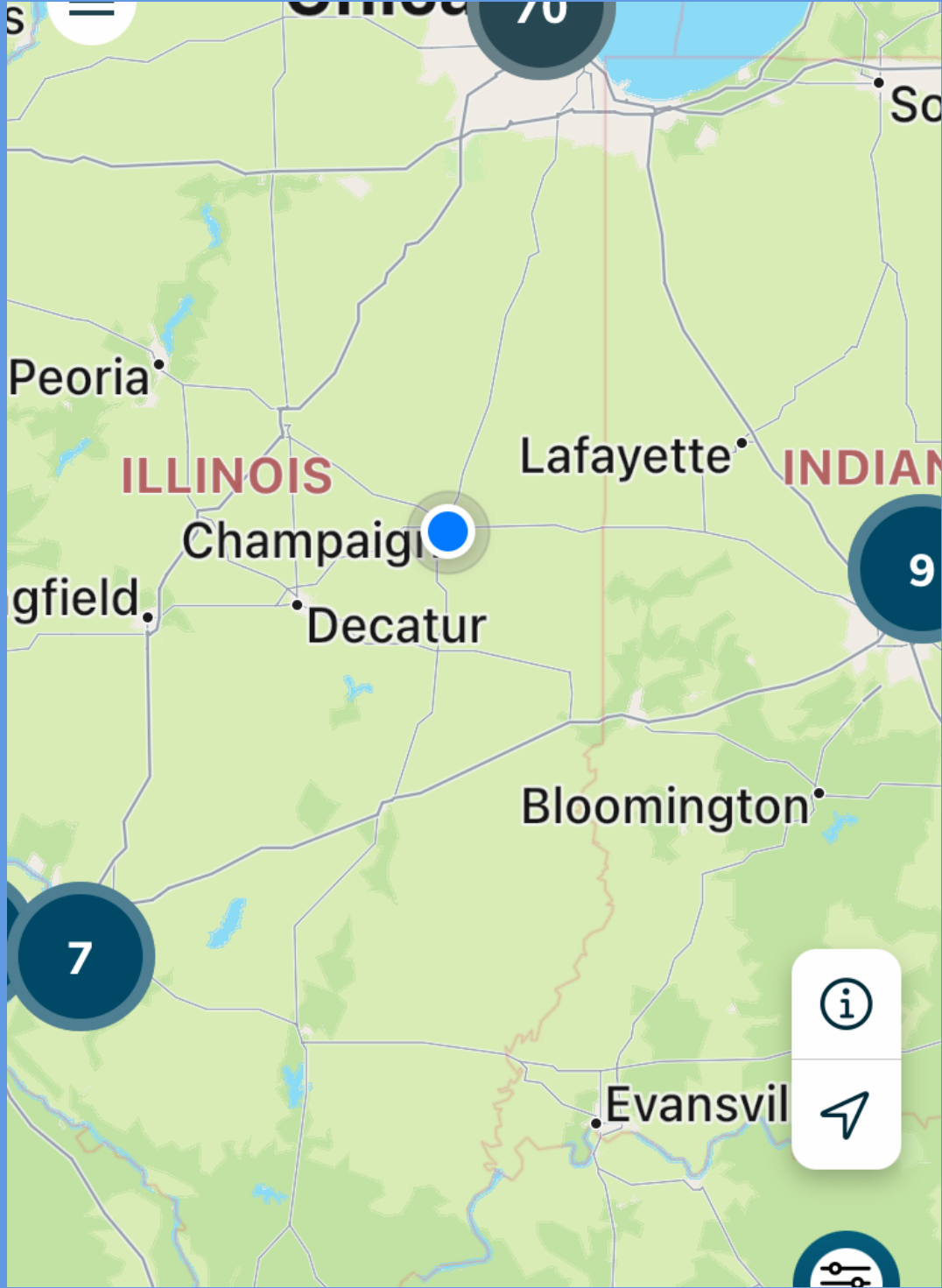
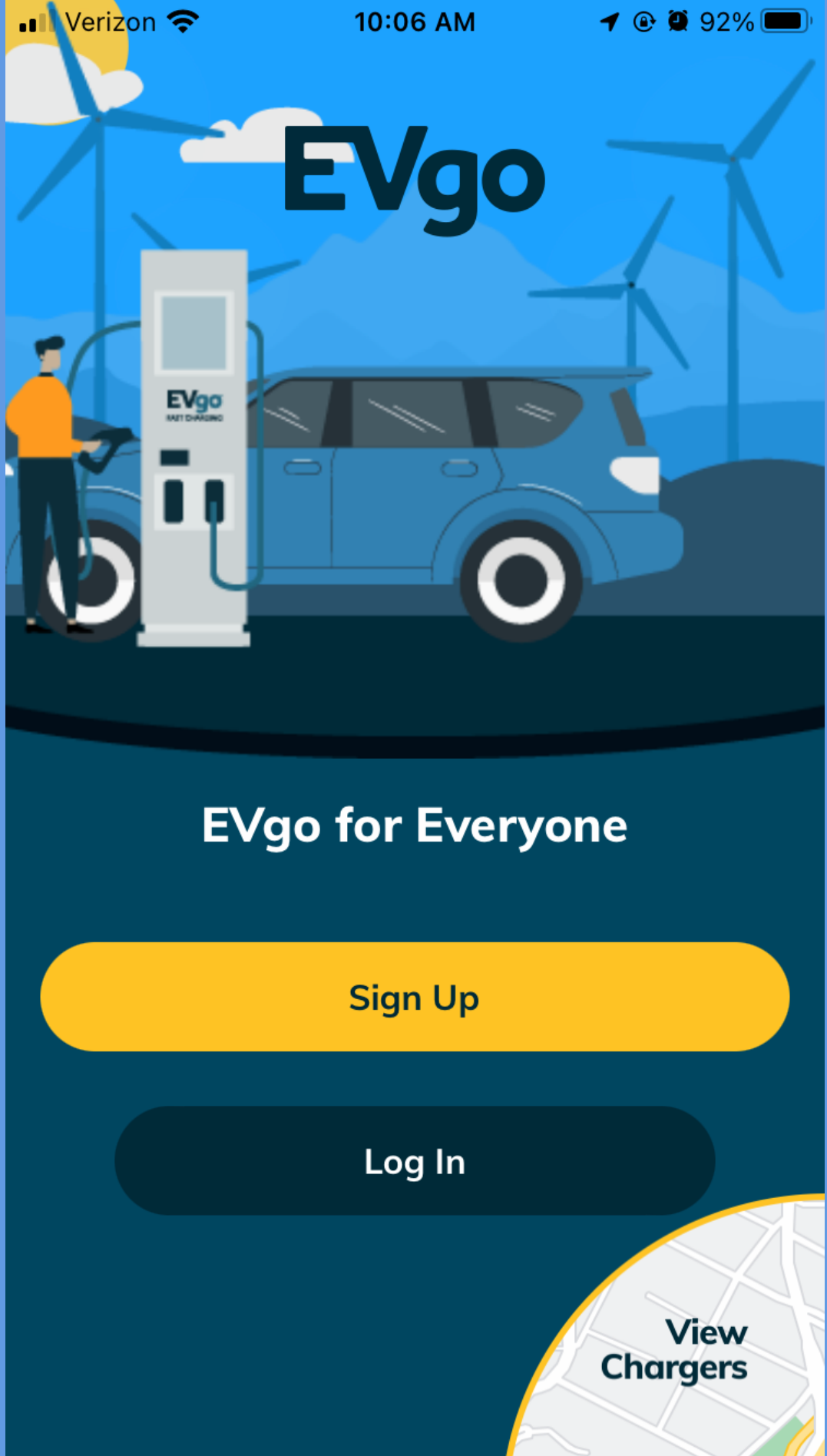
I don't find very useful except for using the app to when using a charge station (right screen) Left image the "home" screen if you're in Champaign, center - a description of an Electrify America location. I prefer to find Level2 stations with PlugShare, then switch to Chargepoint app if its one of theirs.

Session ??: Charger Apps



A quick run-through of the others.

Session ??: Charger Apps

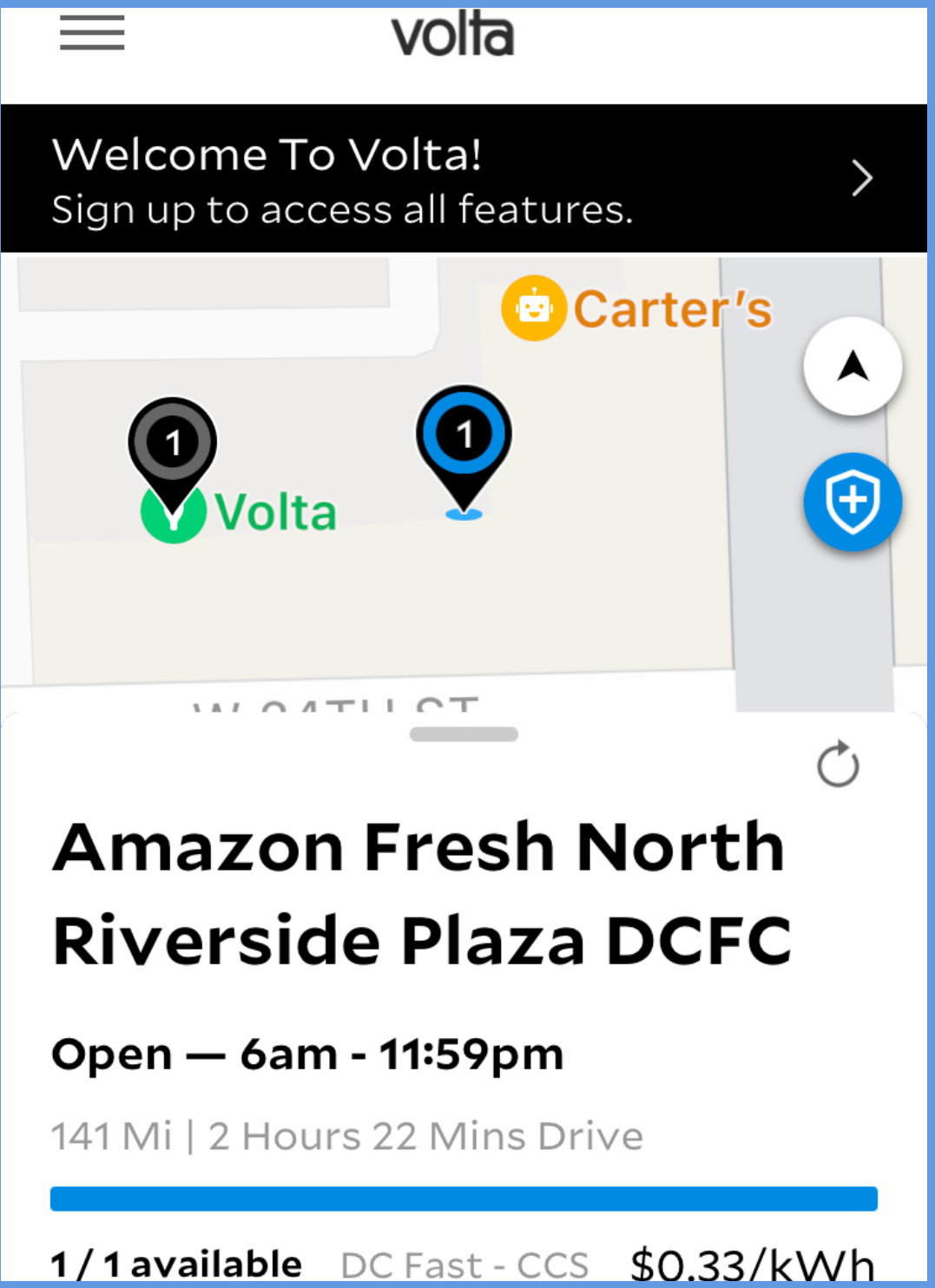
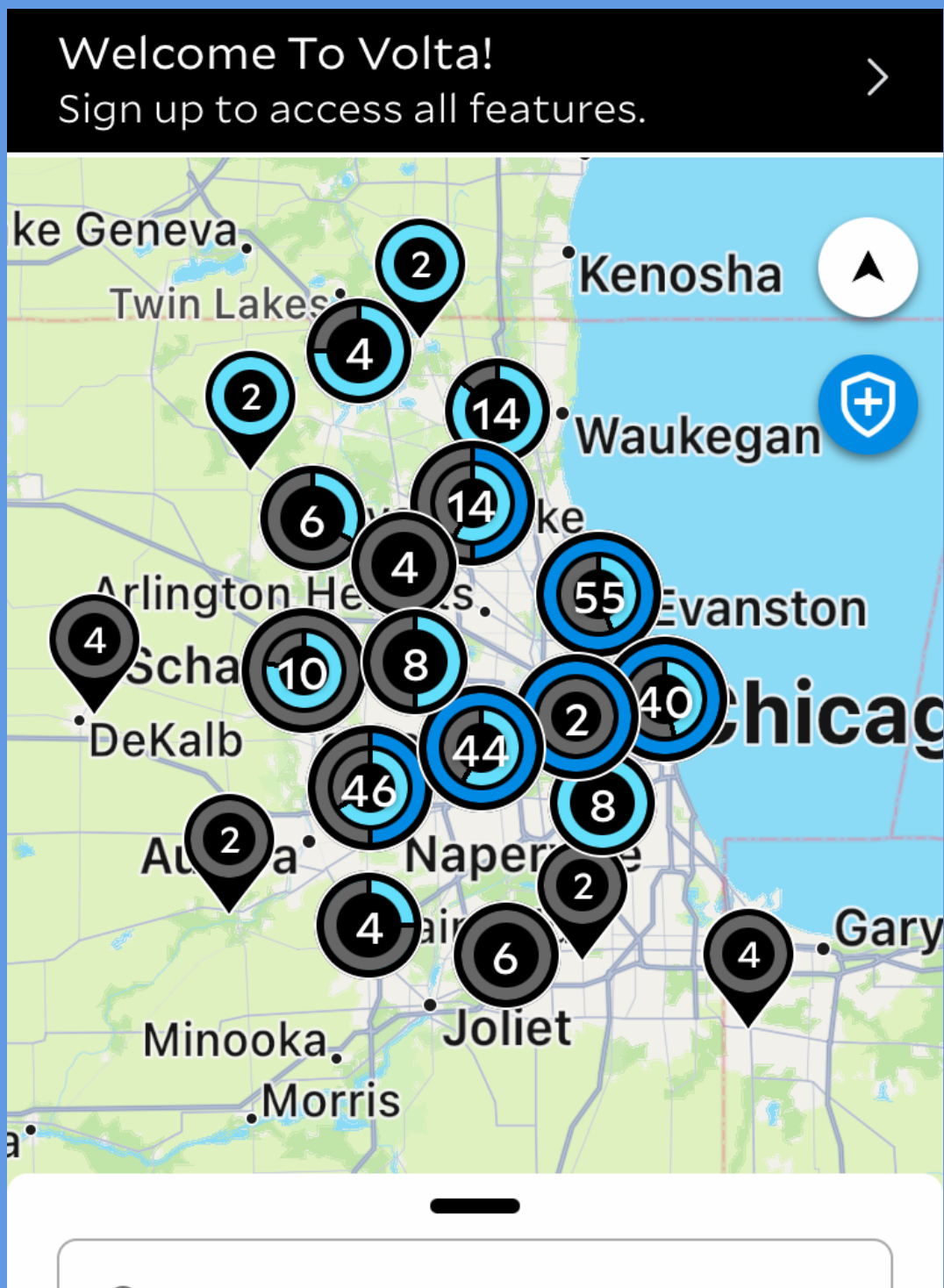
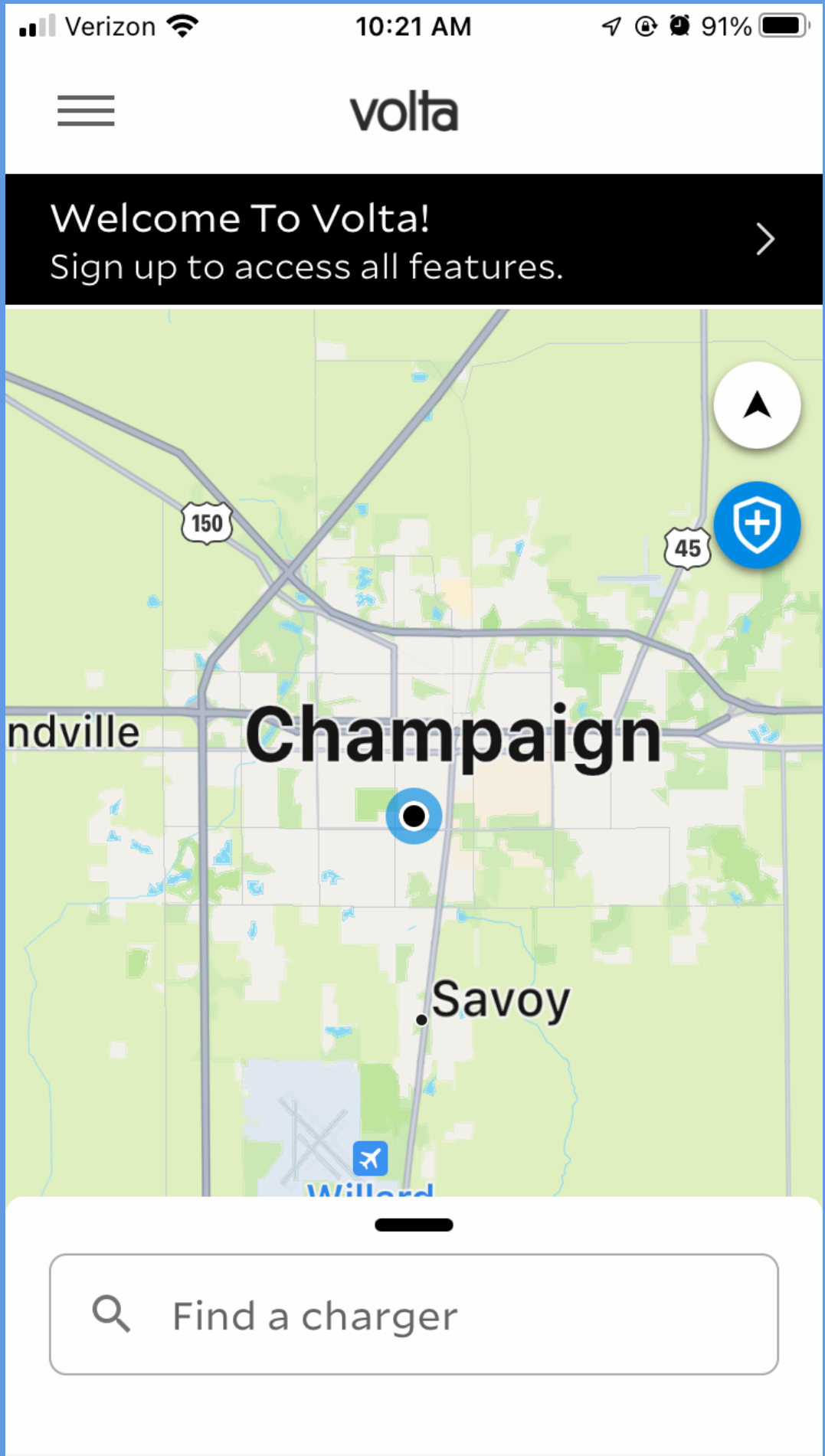


Left image the start screen, center -very few locations in Illinois, right - details of a typical location with only one 50 kw charger.

EVgo

EVgo used to be somebody - until 2020. Their growth stalled and Electrify America was started with \$2 billion dollars of VW "Dieselgate money". EA rapidly outpaced them with locations with a minimum of 4 150kw chargers. EVgo is just beginning to grow again, adding locations with multiple chargers of 150 and 350 kw.

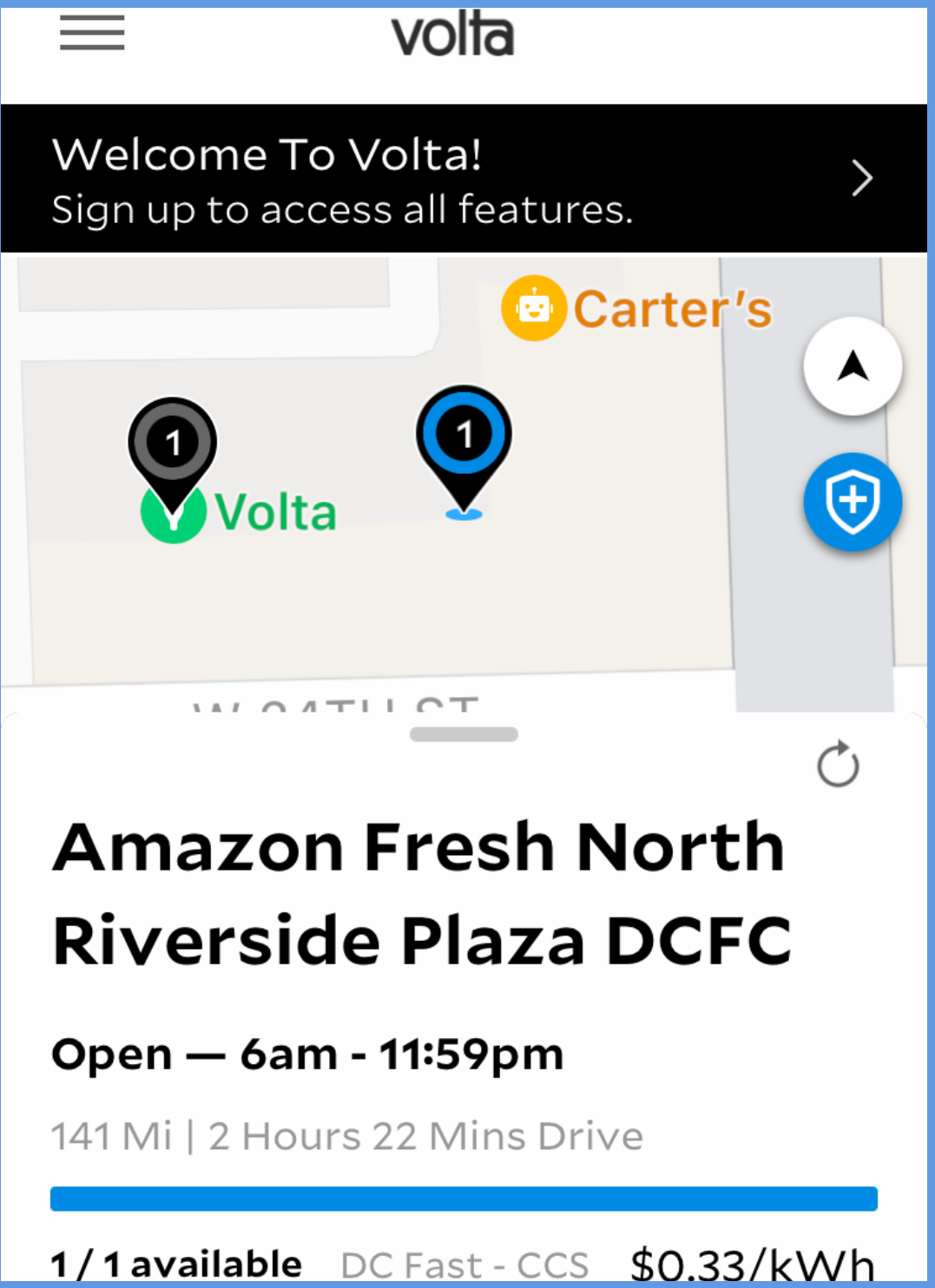
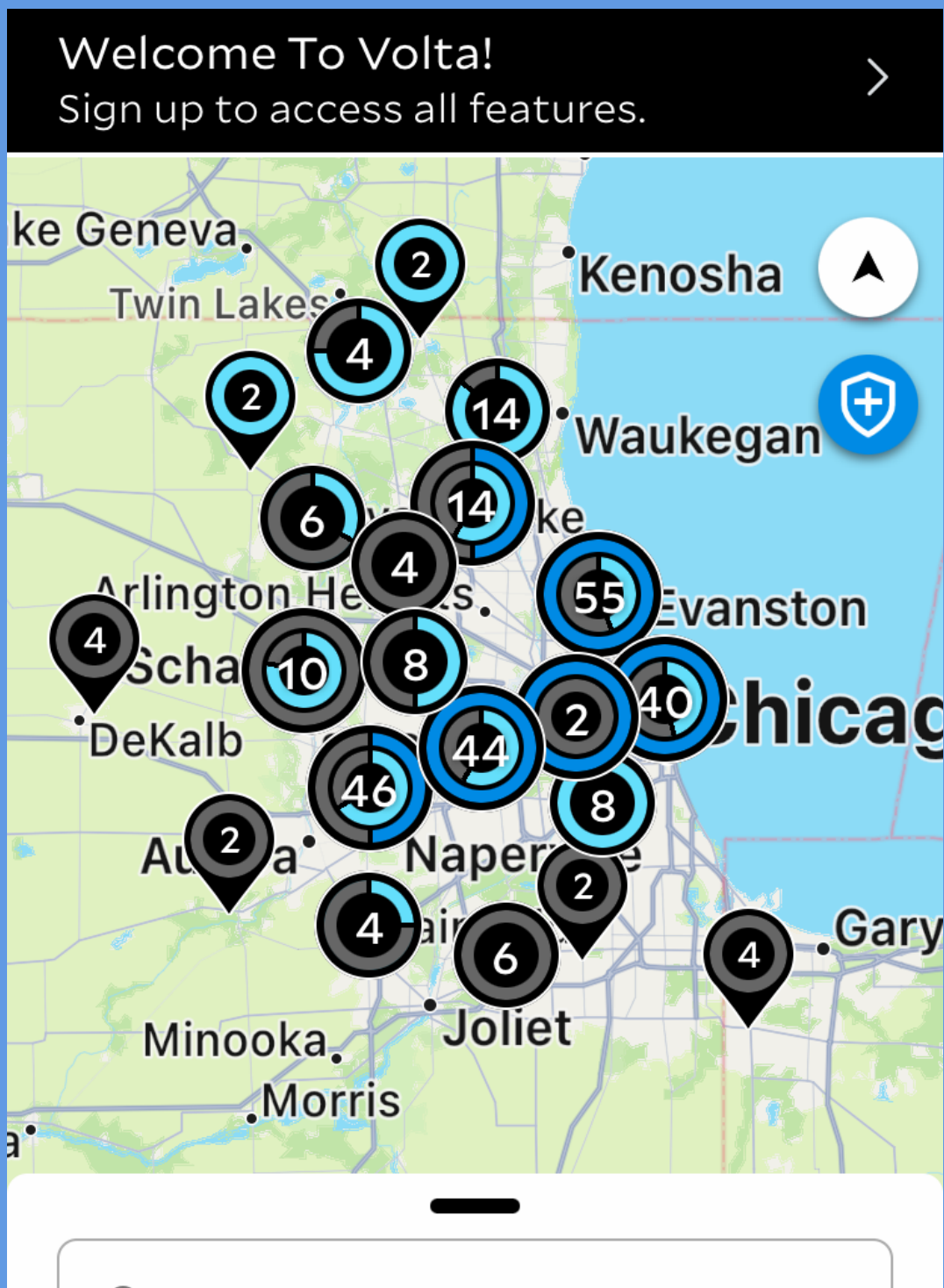
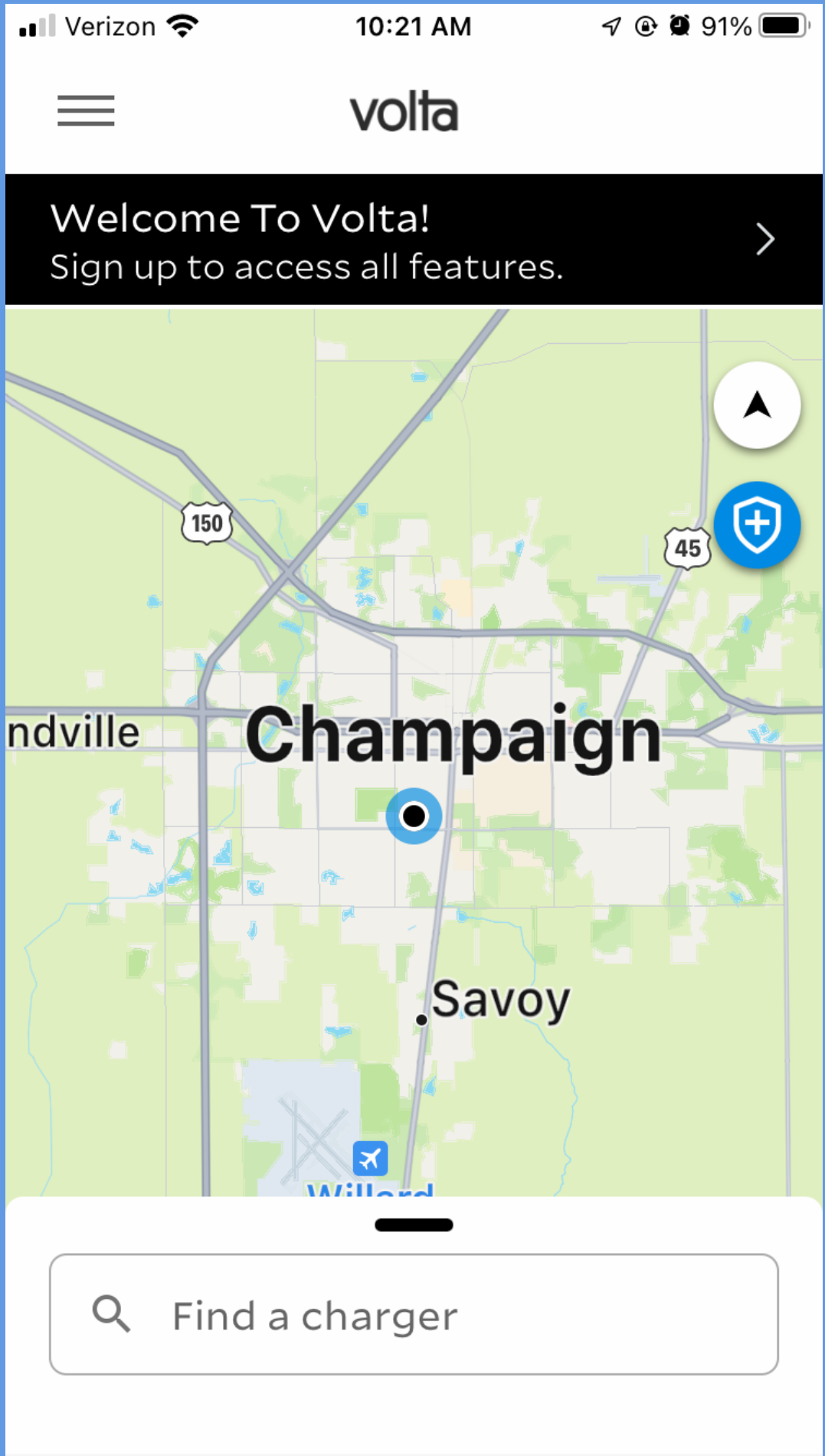
Session ??: Charger Apps



Mostly level 2 chargers that are FREE. They approach shopping sites, install chargers free to the stores, let EV drivers charge for free and make all of their money advertising on the Charger cabinet. Branching into DCFC, but those have a fee.

Volta

Session ??: Charger Apps

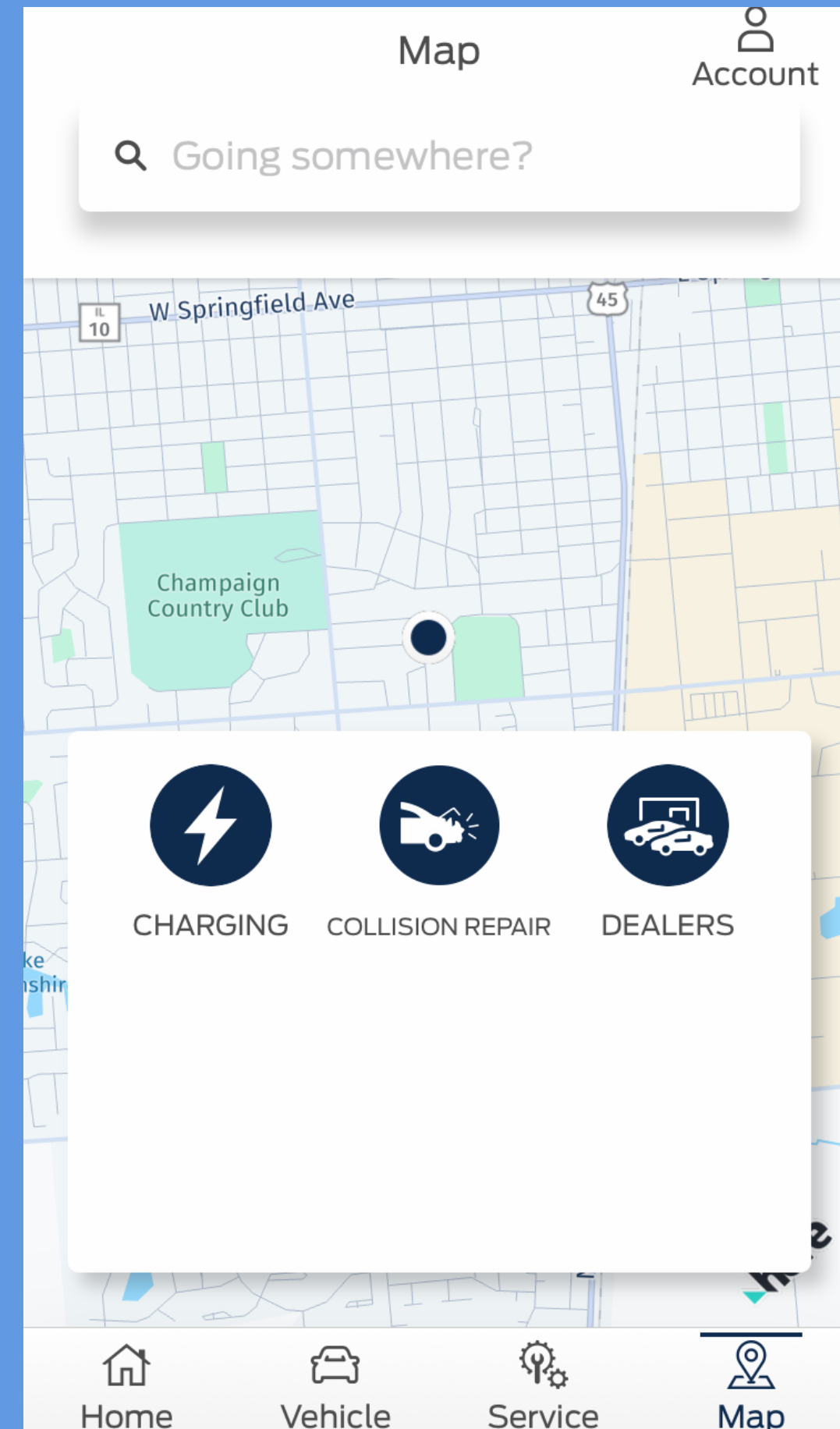


Left image the start screen, , center -Chicago locations, right - details of a location with DCFC charger. Volta DCFC are usually between 50-100 kw.

Volta

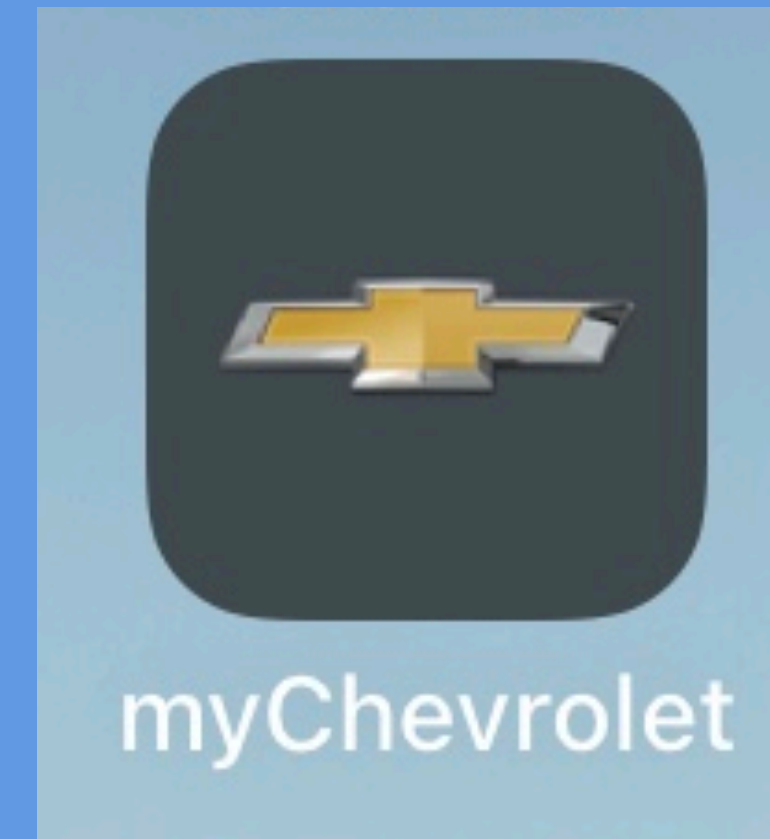
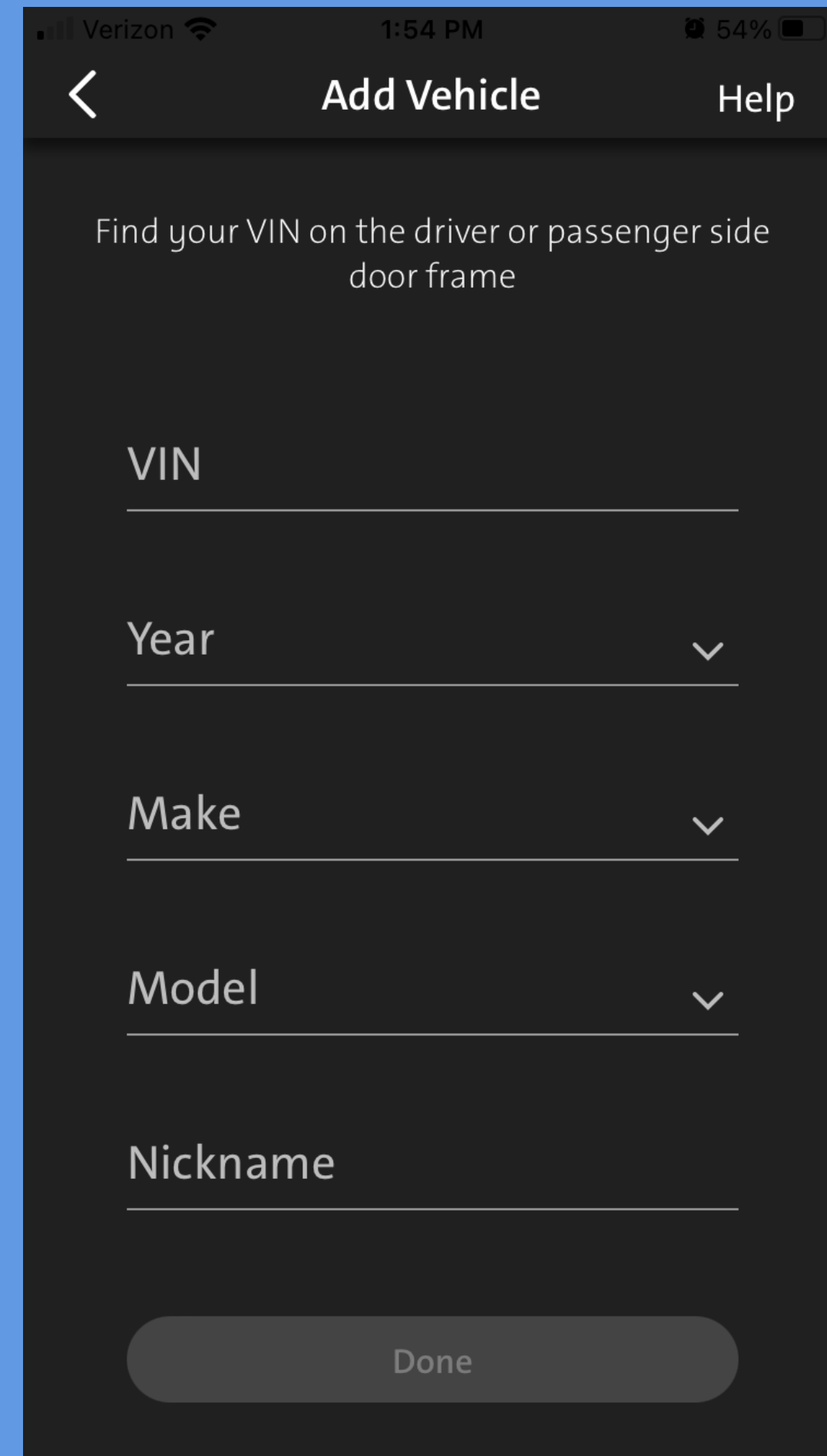
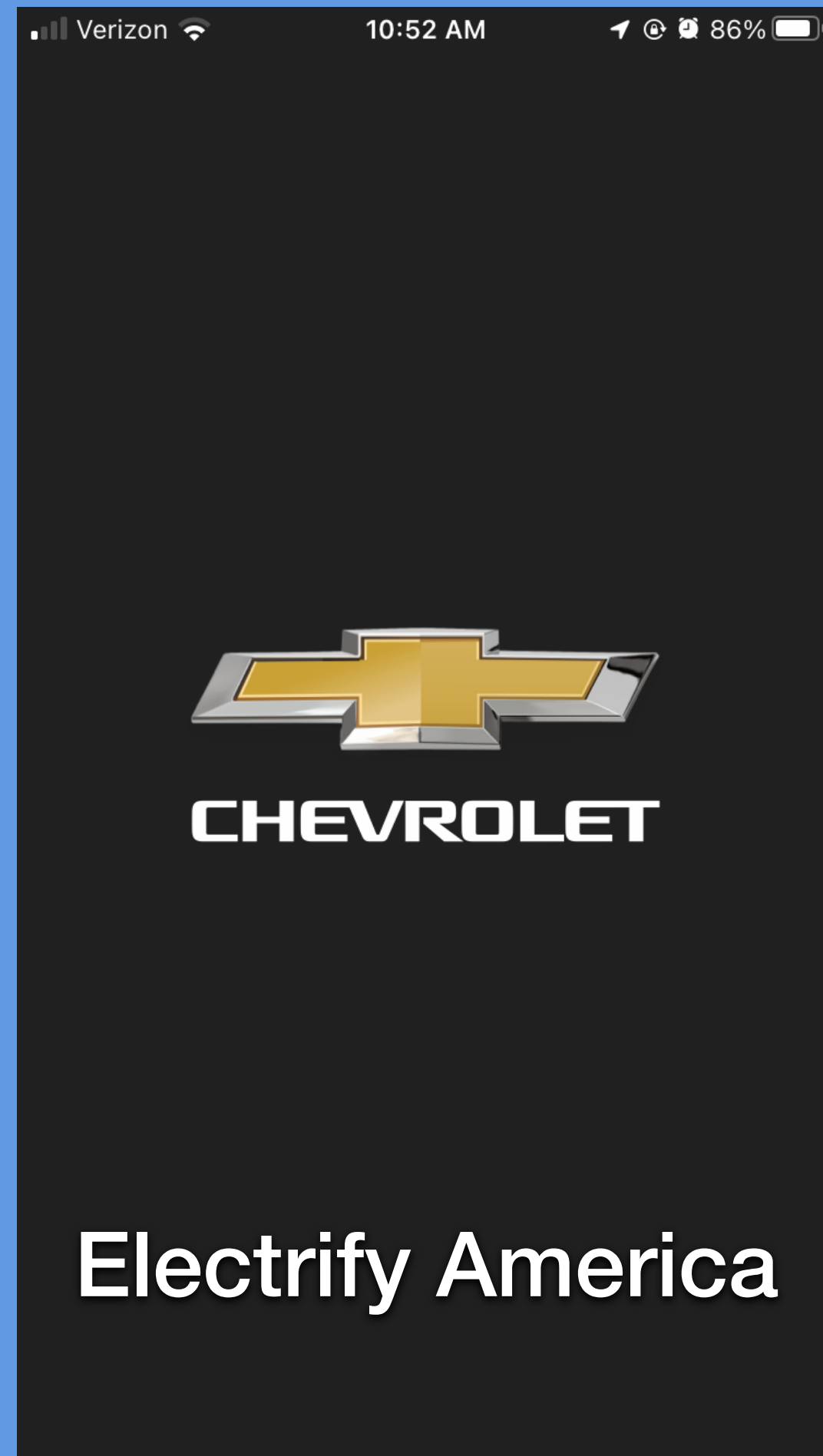
I LOVE Volta - I bought some stock, lost 90% of my money. Excellent charging experience, excellent business plan. Made every prudent long term move and the stock market hammered them. They deliberately slowed growth to wait for Jan 1st federal money.

Session ??: Charger Apps



Its an app aimed at Ford owners. It has links to services other than charging. Ford does not have a network. When companies like them claim and name a network, almost always it is a partnership with actual charging networks.

Session ??: Charger Apps



Chevy an app is so aimed at Chevy owners you need a VIN to sign up.

Ford and Chevy apps are likely mediocre at finding chargers. Dedicated apps do a better job of giving information about the chargers and allow better decisions to be made.

Session ??: Charger Apps

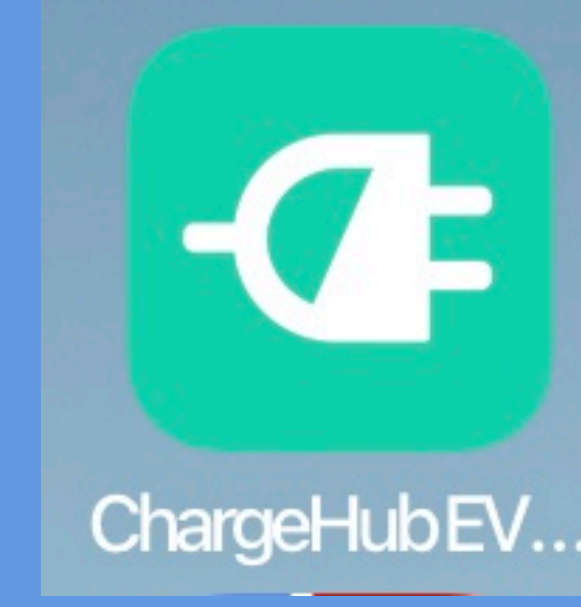
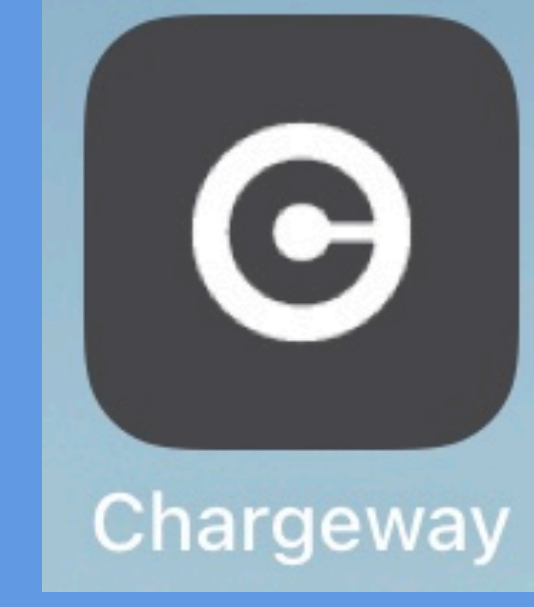


I mentioned before that Blink charger fees are high. Blink would be my last choice for a charger.

But sometime it might be the only charger. If so consider signing up on the app to get discounted fees.



Shell is starting a program to install DCFC at gas stations. App call ShellReCharge. Charging network is Greenlots renamed. Planning installation of 500,000 chargers by 2025. Currently this app has little use (IMO)



ABRP (a better route planner) ; Chargeway; EVConnect; and ChargeHubEV. Primarily early attempt to make route planning easier. Interesting concept - try them. I personally will do most of my planning with Electrify America and use PlugShare to fill in the gaps. Both work quite well on the dining room table with a cup of coffee. (Or at a coffee shop)