



# TT 228

Recording Date: 05/11/2022

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**Mel** ♦ **Robert** ♦ **Tom** ♦ **Joel**

	Today(+/- 20 min)	Since Last Show	30 Day Change	YTD Change
TSLA	769.59	-11.10%	-24.72%	-35.86%
RIVN	26.70	-7.26%	-35.12%	-74.01%
LUCID	18.01	-0.77%	-18.32%	-56.00%
NIO	14.31	-4.09%	-29.92%	-57.25%
NASDAQ	11,805.00	-2.80%	-13.48%	-25.44%
S&P 500	4,023.89	-2.41%	-9.51%	-16.11%

## Show Structure

1. Something Fun to set an energetic tone - Patreon Poll of the week
2. Tesla ESG report - 10-15 minutes
3. Space X update - very short (Did not make final show)
4. Media Picks -

## Letters/Messages

Poll results Twitter and Patreon

## TESLA, THE STOCK & EV STORIES

### ***HEY ALEXA, What's Telsa's Stock Price?***

**Who** - Tesla

**What** - The yearly ESG report from companies is a report on what steps institutions are making towards reducing environmental impact in order to give investors a snapshot into these practices

**Why** - A company named MSCI - produces ratings on corporate “environmental, social, and governance” practices. Used by investors to try and invest in companies they believe are making positive steps for the world

**When** - May 6th or so it was released -

**How** - This is the sticking point for Elon and Tesla and I will give an example of how the ratings can be deceiving -

Bloomberg -” Yet there’s virtually no connection between MSCI’s “better world” marketing and its methodology. The ratings don’t measure a company’s impact on the Earth and society. They gauge the opposite: the potential impact of the world on the company and its shareholders. MSCI doesn’t dispute this. It defends its methodology as the most financially relevant for the companies it rates.”

The most striking feature of the system is how rarely a company’s record on climate change seems to get in the way of its climb up the ESG ladder—or even to factor at all. McDonald’s Corp., one of the world’s largest beef purchasers, generated more greenhouse gas emissions in 2019 than Portugal or Hungary, because of the company’s supply chain. McDonald’s produced

54 million tons of emissions that year, an increase of about 7% in four years. Yet on April 23, MSCI gave McDonald's a ratings upgrade, citing the company's environmental practices. MSCI did this after dropping carbon emissions from any consideration in the calculation of McDonald's rating. Why? Because MSCI determined that climate change neither poses a risk nor offers "opportunities" to the company's bottom line.

Criteria such as these explain why almost 90% of the stocks in the S&P 500 have wound up in ESG funds built with MSCI's ratings. What does sustainable mean if it applies to almost every company in a representative sample of the U.S. economy?

**Tariq Fancy**, BlackRock's former chief investment officer for sustainable investing, initiated a one-man campaign this year against "green" financial products. "In essence, Wall Street is greenwashing the economic system and, in the process, creating a deadly distraction. I should know; I was at the heart of it," he declared in an essay for *USA Today*. Fancy and others say the emphasis on ESG has delayed and displaced urgent action needed to tackle the climate crisis and other issues, including the widening chasm between the rich and poor.

[https://www.tesla.com/ns\\_videos/2021-tesla-impact-report.pdf](https://www.tesla.com/ns_videos/2021-tesla-impact-report.pdf)

- 2021, the global fleet of Tesla vehicles, energy storage and solar panels enabled our customers to avoid emitting 8.4 million metric tons of CO<sub>2</sub>e
- **Tesla solar panels have generated more electricity than has been consumed by our vehicles and factories between 2012 and 2021 25.39 TWh produced vs 25.27 consumed**
- **aiming to produce over 20x more** cars by 2030 than we did in 2021 (936,222)
- Clean grid = clean emissions - average GHG emissions from one New York-based Tesla equates to the emissions from an ICE vehicle with a fuel economy of 109 MPG (no such vehicle exists). Even when charging a Tesla in Michigan, where approximately 60% of energy comes from natural gas and coal, the emissions from our vehicles still equates to the emissions from an ICE vehicle with 52 real-world MPG (considerably more in terms of EPA rated MPG). As more regions adopt sustainable energy solutions to generate power, emissions related to charging an EV from the grid will decrease even further.
- **In europe it is more profound** - In Europe, the U.K. and EFTA (Iceland, Liechtenstein, Norway and Switzerland), larger portions of energy generation come from either renewable sources or nuclear, the use-phase emissions gap between ICEs and EVs is even wider than it is in the U.S. but since an average European driver covers fewer miles per year than a U.S. driver, emissions from the manufacturing phase are divided by fewer miles. U.S., an average vehicle covers 200,000 miles before getting scrapped, in Europe, total mileage is closer to 150,000 miles. We used Austria as an example of how use-phase emissions should evolve once the European grid becomes greener. in Austria, all-in lifecycle emissions of a personal, grid-charged Model 3Y are over 3.5x lower than all-in lifecycle emissions of an equivalent ICE vehicle.
- It is also reasonable to assume that our high-mileage products, such as our future Tesla Robotaxis, will be designed for maximum energy efficiency as handling, acceleration and

top speed become less relevant. This will minimize cost for our customers as well as reduce the carbon footprint per mile driven.

- **AI to save energy** - We are leveraging six years of sensor data from Gigafactory Nevada to train an artificial intelligence (AI) program to safely control 195 interconnected HVAC units, accounting for 6MW of total electrical load. In its first full year of operation, we have measured significant load reduction compared to baseline usage.
- **Transitioning to in-house manufactured 4680 Tesla cells**, whose production process can reduce energy consumption by more than 70% At Tesla's 2020 Battery Day, we presented a novel way that cells can be manufactured using a dry electrode process. Current electrode production processes involve mixing liquids with cathode or anode powders and using massive machinery to coat and dry the electrode. Since this process involves large ovens, today's cell production consumes a lot of energy. The new dry-electrode process allows for the direct transition from a cathode or anode powder to an electrode film, reducing energy consumption in the overall cell manufacturing phase by more than 70% based on our latest analysis.
- **The global Supercharger network** - was 100% renewable in 2021, achieved through a combination of onsite resources and annual renewable matching. Additionally, all home charging in California was 100% renewable through annual renewable matching (???). Therefore, the only emissions from the use of Tesla vehicles were a result of home charging outside of California and use of third-party charging networks
- **SEMI TRUCKS** - With both the U.S. and E.U. having approved higher weight allowances for electric heavy-duty trucks, we expect the payload to be at least as high as it would be for a diesel truck. In the E.U., electric semi trucks are allowed to be 2 tons (~4,400 pounds) heavier than diesel equivalents, and in the U.S. the allowance is 0.9 tons (2,000 pounds). When fully loaded, the Tesla Semi should be able to achieve over 500 miles of range, achieved through aerodynamics and highly efficient motors. This truck will be able to reach an efficiency of over 0.5 miles per kWh.
- **WATER USE** - We are planning to capture at least 25% of roof runoff (1 million square feet) to a central underground storage system within Gigafactory Texas. Rainwater will be recycled for use in the cooling of manufacturing equipment. In an average year, such systems should save an estimated 7.5 million gallons of potable city water. Additionally, as hot, humid outdoor air is conditioned, water condenses out of the air. Typically, this condensate is discarded as wastewater. At Gigafactory Texas, we reuse this condensate in our cooling towers and process water systems to offset incoming site water.
- **POTENTIAL ONLY** (Using local treated wastewater could result in offsetting the entire annual cooling tower makeup water demand with non-drinkable uses. At Gigafactory Texas, this could result in an estimated 40 million gallons of potable city water conserved annually. Reclaimed water is available and under investigation for use at both Gigafactory Texas and Gigafactory Berlin-Brandenburg)
- The longer the range of our vehicles, the less Supercharging Tesla customers do. After all, day trips of over 400 miles are quite rare.
- **Auto PILOT and Safety** - In 2021, we recorded 0.22 crashes for every million miles driven in which drivers were using Autopilot technology (Autosteer and active safety features). For drivers who were not using Autopilot technology (no Autosteer and active

safety features), we recorded 0.77 crashes for every million miles driven. By comparison, NHTSA's most recent data shows that in the United States there are 1.81 automobile crashes for every million miles driven.

- **CAR FIRES** - From 2012 to 2021, there has been approximately five Tesla vehicle fires for every billion miles traveled. By comparison, data from the National Fire Protection Association (NFPA) and U.S. Department of Transportation show that in the U.S. there are 53 vehicle fires for every billion miles traveled
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Takeaways - Since these reports are done by the individual companies. Take them with a grain of salt. There are no regulations or Gov't oversight on them. So we take what they give us and make decisions about the companies and if we invest in them or not. But take a look at your investments or even the products you buy from companies - and try and make as an informed decision as you can. Not sure how big an impact it will have but it is something.

For More reading -

<https://www.bloomberg.com/graphics/2021-what-is-esg-investing-msci-ratings-focus-on-corporate-bottom-line/>

<https://corporate.mcdonalds.com/corpmcd/our-purpose-and-impact/our-planet/climate-action.html>

## Battery Technology -

### 5. Paris Bus Fire and Battery conversation



### The latest about the Bus Fire(s)

<https://chargedevs.com/newswire/the-facts-about-recent-electric-bus-fires-in-france/>

- Paris has a bus fleet of 4700 of which 500 are electric from a couple manufacturers
- In April two Electric buses from BlueBus (Bluebus 5SE) caught on fire. A very good video shows the very beginning of the fire, seemingly before you could see anything happening at all
- Paris has pulled 149 of these buses. ATM we do not know if these are all of the 5SE buses or just from a particular batch
- The bus is thought to use **Lithium Metal Polymer batteries**, though it has not been confirmed by the company

### Video

<https://www.youtube.com/watch?v=5r-yN8SugWM>

### Making of the Bus

[https://www.youtube.com/watch?v=N\\_1xU1jXYTg](https://www.youtube.com/watch?v=N_1xU1jXYTg)

### Interview with CEO of Bluebus

<https://www.electrive.com/2021/10/01/bluebus-presents-revamped-electric-minibus-with-solid-state-battery/>

## Advantages of Solid State

<https://www.blue-solutions.com/en/battery-technology/#advantages-of-solid-state-batteries>

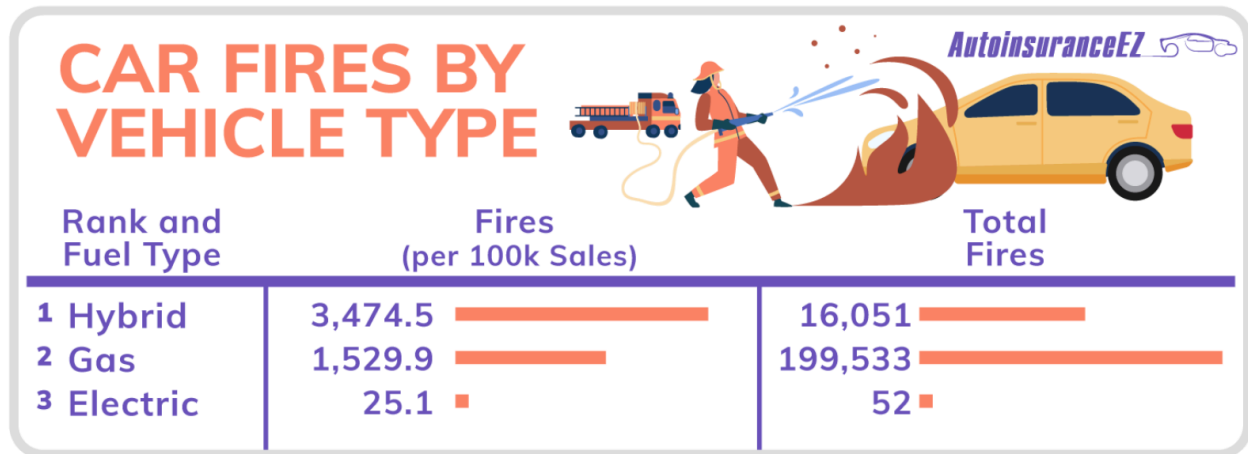
Questions for Joel:

- What's the difference between these LMP batteries and Lithium Ion Batteries.
- What's a good analogy to explain the difference between the two types
- What are failure points

Conclusions:

We don't know the reason for this fire but should have information from the manufacturer as "The Paris public transport operator - RATP has requested a full report from the manufacturer Bolloré to explain the causes of these incidents," said the agency. "Given that this was the second fire recently on an electric bus of the same Bolloré Bluebus 5SE series in less than a month, RATP took the decision...to temporarily withdraw the 149 electric buses [from service]."

- We know from a technical point of view, the LMP should be safer from thermal runaway
- We also know from empirical evidence that EVs are less likely to catch fire than hybrids or gas fires



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    - Or go to TalkingTesla.NET/support (not live as of 1/22/2021).
  - Using our referral code for your next Tesla, Tesla Solar System/Powerwall:
    - www.TalkingTesla.net/referral (will land on a referral code randomly)

## **SUPERCHARGERS**

### **SPACE-X & AEROSPACE**

Thanks to <https://nextspaceflight.com/launches/>

Update - Thu May 12, 2022 3:29 PM PDT  
SLC-4E, Vandenberg SFB, California, USA

**Falcon 9 Block 5 | Starlink Group 4-13**

“Of course I still love you”

Sat May 14, 2022 1:38 PM PDT  
SLC-40, Cape Canaveral SFS, Florida, USA

**Falcon 9 Block 5 | Starlink Group 4-15**

Wed May 18, 2022 2:00 AM PDT  
LC-39A, Kennedy Space Center, Florida, USA

**Falcon 9 Block 5 | Starlink Group 4-18**

Wed May 25, 2022 11:25 AM PDT  
SLC-40, Cape Canaveral SFS, Florida, USA

**Falcon 9 Block 5 | Transporter 5**

LZ-1

NET June, 2022  
LC-39A, Kennedy Space Center, Florida, USA  
**Falcon Heavy | USSF-44**



## HYPERLOOP & BORING CO

### The Harold Murphy MEDIA PICKS

 Talking Tesla Media Picks -

- **Mel** - **Ozark**, Project Hail Mary - Andy Weir
- **Robert** - **McCartney 321** (Hulu) in anticipation of going to the McCartney
- **Tom** - **New Season** - **Tehran on Apple+**
- **Joel** - Jewish American Heritage Month + Barbeque Month
  - Barbeque Month - <https://www.grillagrills.com/blog/national-bbq-month>
  - Jewish American Heritage Month - <https://www.jewishheritagemonth.gov/>
  - NYC: <https://www.pulkies.com/>
  - NYC: <https://izzyssmokehouse.com/>
  - LA:  
<https://thebarbecueking.co/kosher-los-angeles-barbecue-different-from-the-other-s/>
  - Carlsbad:  
<https://www.yelp.com/biz/kosher-barbecue-bounty-and-steak-night-carlsbad>

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## ANNOUNCE

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We encourage you to join your local **Tesla Owners Club!** Talk more Tesla talk, share camaraderie, go on drives and meet up to share and promote transportation: [www.tesla.com/support/ownersclub](http://www.tesla.com/support/ownersclub)

## LETTERS

### TT Listener Messages 2022

Check TT accounts:      Facebook - Tom  
                                 Twitter @TalkingTesla - Tom or Robert or Joel  
                                 Instagram - Tom or Joel  
                                 Reddit -  
                                 Discord -

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ARTICLE HOLDING AREA:

[https://apple.news/AtiNMY\\_8dRp2julF25wsCgw](https://apple.news/AtiNMY_8dRp2julF25wsCgw)

**Jon Luke**

I wonder if you guys might discuss battery recycling and the lifecycle of a Tesla battery as things are now. This has been a frequent argument from people in my social circle that aren't so pro-EV. Curious about your thoughts.